

# **Obesity and the Technological Fix: Weight Loss Surgery in American Women**

**Donna Marie Augustine**

Thesis submitted to the Faculty of the Virginia Polytechnic  
Institute and State University in partial fulfillment of the  
requirements for the degree of

Master of Science  
in  
Science and Technology Studies

**Ann LaBerge, Chair**  
**Muriel Lederman**  
**Martha McCaughey**

May 5, 2003  
Blacksburg, VA

Keywords: weight loss surgery, obesity, technological fix

Copyright 2003, Donna M. Augustine

# **Obesity and the Technological Fix: Weight Loss Surgery in American Women**

Donna M. Augustine

## **(ABSTRACT)**

This thesis is an analysis of how societal values shape our ideas of health and disease, the designs and marketing of weight loss surgery technologies, and the ways in which obesity reducing-operations are accepted and desired. Gender ideologies, American values of commodity capitalism, treatment that focuses on the individual, and a moral aversion to fat have all shaped the medical treatment of obesity as an epidemic and the promotion of weight loss surgery as the best available solution. In this project, I approach the question of obesity by deconstructing the terms that have framed it as a social problem and I show how and why specific technological remedies have been pursued. My thesis is that among obese Americans, females and their bodies are especially stigmatized and pathologized. Because of this, efforts and applications of science, technology, medicine, and policy focus to “fix” these bodies/people, which are considered out of control.

# Table of Contents

Abstract	ii
Table of Contents	iii
Preface	v
Introduction	1
Chapter One - Situating Weight Loss Surgery: Theories and Methods	3
Situating Weight Loss Surgery: The Problem of Obesity	4
○ American Obesity as Epidemic	4
○ Paradigms for Treating Obesity	5
○ Weight Loss Surgery as Treatment for Morbid Obesity in Women	7
Theoretical Framework	7
○ How Medical Technologies have been used to Control Women	9
○ Reinforcing Norms by Fixing Bodies	10
○ Deconstructing Health	11
○ Body and Identity	12
○ Gender and Weight Loss Culture	13
○ Fat and Obesity	14
○ Terminology	15
Research Methods	16
○ Situated Knowledges	16
○ Autoethnography	17
○ Discourse Analysis	18
Chapter Two - Stapling, Bypassing, and Banding: A Short History of Weight Loss Surgery	20
A Brief History of Bariatric Surgery	21
○ 1954 – The Beginnings	21
○ The Jejunum-Ileal Bypass to the Biliopancreatic Diversion	22
○ Gastric Bypass and the Roux-en-Y Gastric Bypass	23
○ Horizontal Gastroplasty and Vertical Banded Gastroplasty	24
○ Gastric Banding	25
Weight Loss Surgeries Today	25
○ Popular Restrictive Weight Loss Surgeries (Gastroplasty)	27
▪ Vertical Banded Gastroplasty	27
▪ Adjustable Gastric Banding	27
○ Popular Malabsorptive Weight Loss Surgeries (Bypass)	28
▪ Roux-en Y Gastric Bypass	28
▪ Biliopancreatic Diversion and Duodenal Switch	28
○ Laparoscopic Weight Loss Surgery	29
Risks and Rewards of Weight Loss Surgery	30
○ Co-morbidities of Morbid Obesity	30

○ Eliminating and Reducing Co-morbidities through Weight Loss Surgery	31
○ Post-Surgical Risks and Problems	32
Chapter Three - Weight Loss Surgery Culture	35
Images of Weight Loss Surgery in the Media	35
○ Representations of Weight Loss Surgery in <i>People Magazine</i>	37
Obtaining Weight Loss Surgery	40
○ Guidebooks	40
○ Qualifying for Weight Loss Surgery	40
▪ The Primary Care Physician	40
▪ The Bariatric Surgeon	42
▪ Financing Surgery	43
○ Pre-operative Fantasies	44
○ Preparing for Surgery	45
○ Post-operative Life	46
Normalizing Female Bodies	47
○ The Significance of Gender	47
○ Boundary Work	48
Conclusion - Fixing Women	52
Future Directions	53
Appendix – “Gastrointestinal Surgery for Severe Obesity” – National Institutes of Health Consensus Development conference Statement March 25-27, 1991	57
Works Cited	76
Curriculum Vita	81

## Preface

I have probably started at least two weight loss journals a year since the fifth grade. At first, I would write contracts to myself on pieces of notepaper in cursive handwriting. Then, I would list the clothes that I would buy when I lost a specified amount of weight. I remember the fifth grade because that was the year that I went to the allergy specialist and he made a much bigger deal about my weight than my regular pediatrician ever did.

The specialist walked into the room where I was sitting on the examination table. I was only eleven, so my mother was in the room with me. The doctor flipped open my chart, scanned it for a few seconds, looked at me and went into this very serious lecture about my weight. I remember that I weighed 199 pounds that day. The doctor asked me if I thought that I could lift a bag of soil up a flight of stairs without losing my breath. He answered his own question with an “I don’t think so” and went on to direct me to never gain another pound. According to the doctor, if I didn’t gain any more weight, I could still grow to be a heavy but healthy adult. I still had a chance. If I lost fifty pounds, it would be better. That night I made a list of all the different pairs of stirrup pants I would get - stirrup pants being all the rage in elementary school at the time - when I lost fifty pounds.

That was the beginning of my first weight loss documentations and promises. In retrospect it is interesting that I went to the doctor to get allergy help, but what I remember sixteen years later is his fixation on my weight. Looking back, it is interesting to realize that although I felt like the doctor was blaming me for my unacceptable weight, his lecture was probably equally directed at my mother, the person responsible for my weight/health at the time. And, it is definitely interesting to note that I was told to lose weight for medical/health related reasons but I converted my reward for doing so into clothes and the promise of looking cool for the sixth grade.

Now, seventeen years later, I make my journals on a laptop. Right now, I have three different attempts saved in my documents files hidden among response papers, syllabi, and thesis work. I have progressed from my I-dream-of-stirrup-pants days to include weight, a list of food intake, and a notation of what exercise I accomplished in my daily entries. While I don’t explicitly count calories in the writing of my food diary, I always know what the totals are – I have been watching my weight, aware of food, calories, and pounds, for so many years that the tabulation comes automatically.

I usually start one of my weight loss journals when something traumatic happens like someone makes a nasty comment to me, or I get my heart broken, or I am feeling depressed, or my pants don’t fit. I keep up with the journal for about a week. For the first few days, my eating is controlled (meaning my calories are low) and I exercise. By mid-week I slip. I promise myself that it was just a mistake, and that the next day will be

better. But, commonly, the next day I slip again. After a week, I give up on writing my diet. Whether it is because I cannot seem to stick to it and I am tired of trying, or because I convince myself that my weight, eating, and exercise are not such a big deal to warrant such focus, or because the project just seems so unfeasible when it takes so much effort for me to be successful and I am aware of the years and years of commitment it would take for it to ever end because I have so much to lose, the documentation becomes unimportant to me and I stop. A few months later, another trauma sparks the process and I begin again.

This thesis is an extension of my weight loss journals into my academic life- a meta-journal. It is my own story, my own coping with the issue of the obesity epidemic in the United States as one of the obese. It is my grappling with the possibility of weight loss surgery as a solution to the nationwide weight problem and as a solution to my own.

While I am in no way trying to claim that I know what life is like for every fat woman in America, I think that my life-long experience of living as a fat female is an important aspect of my research. While I cannot speak for everyone, I can speak from my own experience – my own unique position.

I am constantly aware of my fat, my weight, and my size. It isn't just the mirror, or trying on clothes. To be fat is to wonder if the distance between the bench and the table is enough when shown to a booth at a restaurant. It is memorizing which seats in the university lecture hall have the broken fold out desks in order to have a few extra inches for my hips during class. It is figuring out when the best time would be to ask the flight attendant for a seat belt extender so that other passengers are least likely to notice. (I like to ask as I board the plane.) To be fat is to request a chair without arm rests. It is hoping that the seat belt in your friend's car will make it around you. It is having one fat-lady specialty store at which to purchase all of your clothes. To be fat is more than being the biggest and regularly being made to feel embarrassed for the physical space you take up. It is being reminded daily that you don't fit. It is having friends and family members who pursue diets and exercise because they don't want to be fat – they don't want to be like you.

I am thinking and writing this project as a beginning scholar in the field of science and technology studies with a particular interest in issues in feminist studies of science and technology. I am also writing as a person who has toiled successfully for an undergraduate degree in biology from a top technical school. I am white, able, educated, heterosexual, and was raised in a loving and nurturing middle class, Catholic family. All of these characteristics, and more, inform my experiences and analysis in this thesis.

It also matters that I weigh more than 300 pounds. And, that every day, for as long as I can remember, I have wished that I could (somehow, anyhow) lose fifty pounds, a hundred pounds, and now a hundred and fifty pounds. I have tried. In sixth grade, I did "Weight Watchers" and learned how to count everything. In eleventh grade, I tried food replacement with "Nutri System." And, after my freshman year in college, I was on the liquid diet "Optifast." I did lose some weight each time and I felt better about myself.

But, I never could stick with any of the plans long enough to get even close to what would be considered a normal weight.

For a very long time, from early elementary school when kids would call me horrible names on the school bus and I would go home crying until my first year as an undergraduate at MIT, I was very conscious of my weight and had a very low sense of self-worth in relation to it. I barely spoke outside of my family, had very few friends, and rationalized that it was my fault for being fat and thus my fault for being treated poorly. I really believed that I deserved less because of the size and shape of my body.

It was a very difficult and long process for me to learn that I deserve and can have more. At MIT, I tried things that I never thought were possible and succeeded. I joined a sorority. I became a campus leader. I became a feminist. I was social, popular, confident, and strong. At MIT, it felt like my weight was just my quirk and it didn't matter so much because I lived in a community of quirky people. The experience was very good for helping me to come to terms with the reality of my fat body. Instead of living as someone who just hadn't succeeded at her diet yet – someone who had to work to reduce her fat body before she could start living, I accepted myself as fat. And, I decided that I could live this way. It would be just fine if I were fat for the remainder of my life. I could still live. I don't have to surrender everything to my fat.

So, I have lived. And, through living, I have become very aware of weight prejudices and the restrictions and pain that they entail. I wonder why in my post-undergraduate job search I got many interviews from my resume, which lists a lot of “not-fat” experiences, but was only offered one job (for which I happened to be significantly over-qualified). I am sure that many factors play into this, including the way that I present myself. I know that when I first meet an interviewer I have to compensate for the shock of having a 300-pound high-achieving female applicant walk into the office. My physical type is not that common in the competitive job market. I swear that I could see the surprise on the interviewer's face even though they tried to hide it. I have to demonstrate that I am qualified, outgoing, and motivated even though I am fat.

A few years ago, I was visiting my brother, Jimmy, who was considered one of Harvard University's “most beautiful people” at the time. We were out shopping at a trendy store (for him of course) when we bumped into one of Jimmy's friends near the dressing room. Jimmy introduced me as his sister. The male friend turned to look at me and replied very seriously and automatically, “No, she's not.” This was one of the most hurtful experiences of my adult life.

I can deal with having derogatory comments shouted at me from open windows in the Corps of Cadets dormitories (just this week I heard, “come and look at this fat bitch” as I walked by). I can deal with having children stare at me in the locker room at the public swimming pool. I can even deal with being hit with the occasional lump of trash and nasty comment shot from the passenger's side of a pickup truck as I walk down the street. All of these are impersonal ways, although admittedly also cruel and demeaning ways, of reacting to a fat body. It is sad to admit it, but growing up fat and female in this culture, if I didn't come to expect them, I learned to tolerate these reactions. People are

not kind to fat people. (And, many fat people are not kind to themselves.) But, when Jimmy's friend cast his condescending gaze upon me and without even taking a moment to notice the physical features that my brother and I share or, taking two moments to notice that we have similar mannerisms, the stranger expressed protest to the idea of Jimmy and me being closely related, I felt deep pain. Couldn't the beautiful Jimmy Augustine have a fat sister? Why was my body so much of a shock that this person immediately threw out the possibility?

That experience reminded me of my place in a world that doesn't give me a chance to speak or act – a world that judges me on the appearance of my body. The reality check made me wonder if my brother is embarrassed to be seen with me. While Jimmy is not - in fact, immediately following the incident he commented that he needed to find new friends - I can assume that other people are embarrassed. No matter how fine I feel in my fat body, no matter how strong I feel, no matter how much I achieve, no matter how much I don't want to apologize, I cannot forget the experience, its meaning, or how it made me feel. This way, I know my enemy. The enemy is not fat or fat bodies or fat people. The enemy is the social environment with deeply embedded anti-fat values in which we all exist.

I have built my life around my weight and will never be unaware that it is an issue that not only makes me different but also renders me vulnerable to stigmatization and pain. This is a defense mechanism and also a way to get on with living. While I wish that my fat would go away and will continue to attempt diet and exercise regimes because it seems as if day-to-day life is so much easier when you are not fat, I refuse to think that I deserve less respect, dignity, opportunity, and acceptance because of my fat body. And, I do my best to believe this.

I am at a very interesting and complex place. Of course, I could be considered a hypocrite because I resist the system that tells me to be ashamed and embarrassed of my fat and the meanings associated with it, while I simultaneously support the same system by working to reduce my weight. I argue that as a fat female, I deserve the same life options and experiences as my thin sisters, yet for a long time I have resolved that because of my deviant body I will never find a romantic relationship or marriage and that when the time comes, I will have to pursue motherhood by non-traditional means. For me, part of accepting my body means recognizing that in a social context that generally does not share in my acceptance, I will probably not have certain opportunities no matter how much I believe and act like I deserve them. This is how I cope with the tension.

I have recently experienced even more complexity in assuming an unashamed fat identity. I have been reminded that there is a difference in performing "fat confidence", the belief that as a fat woman you deserve the same opportunities as a thin woman, and actually having it. A few months ago, I unexpectedly met a "normal," attractive, intelligent man who wants to pursue a romantic relationship with me. He tells me that I am beautiful and means it in a way that includes my mind, spirit, and body. At the age of twenty-seven, it is the first time that I have ever experienced such a combination of words and motivations. As well as I exude fat confidence, I have to work very hard to trust and

believe his intentions towards me. For me, as a fat woman, those words are so hard to believe.

The motivation and the analysis for this thesis are shaped by my experiences from living as a fat American female and as a feminist who is critical of social and medical demands on female bodies. I can speak to the social implications and meanings of fat. While I have not yet had to deal with the medical co-morbidities of obesity, I can speak as someone who has seriously contemplated weight loss surgery. Because the issues that go along with obesity and fat are so complex, I have developed positions in coping with various parts that seem to be conflicting when they are juxtaposed.

Earlier, I argued that in many ways this thesis is another of my weight loss journals - my personal experience is ever-present in the work. Thinking about weight loss surgery as a potential solution to obesity in American women has been both a complicated and personal task. And, my perspectives on the surgery have changed and become increasingly complex in the two years that I have spent researching and thinking about this work. In the beginning, I was completely opposed to what I considered the butchering of fat bodies in the national quest for health and thinness. Now, I feel as if I have a better understanding of the context, benefits, risks, and actual workings of weight loss surgery. Yet, there is a continued tension in my perspective. As a feminist scholar who knows the history of medical technologies that regulate deviant bodies, I am opposed to weight loss surgery. As a fat woman who still wishes to lose weight, I sympathize with the many women who have gone under the knife in pursuit of the technological fix.

The purpose of this thesis is to understand why weight loss surgery is becoming a popular treatment for obesity – particularly among American women. This project, shaped by the lens of science and technology studies and informed by the methods of discourse analysis, is a mapping of issues that are important to such an understanding. But, no matter what I think about weight loss surgery in this academic exercise, I want to be sure to encourage medical and surgical professionals to continue to work to decrease the risk and increase the safety associated with weight loss surgery technologies. The reality is that tens of thousands of women will choose weight loss surgery this year – their lives are at stake.

Right now, the physical and emotional pain that I suffer, the sacrifices that I make, and the perceived benefits of living in a “normal” body, are just not enough for me to seriously consider putting myself through the physical and emotional pain, the sacrifices, and the lifestyle changes that go hand-in-hand with weight loss surgery. However, my perspective may change as I get older and weight loss surgery technologies get safer. My body will change. My relationship with my fat will change. The social context will change. Technologies will change. And, my experience will change. For now, I am not ruling surgery out.

# Introduction

This project is a mapping of issues that are important to understanding the contemporary significance of weight loss surgery. These issues include the context of the American obesity epidemic, the history and details of weight loss surgery technologies, weight loss surgery culture, the significance of gender, resistance to characterizing weight loss surgery as cosmetic surgery, conceptualizations of risk and benefit, and thoughts about weight loss surgery as a technological fix. My thesis is that among obese Americans, females and their bodies are especially stigmatized and pathologized. Because of this, efforts and applications of science, technology, medicine, and policy focus to “fix” these bodies/people, which are considered out of control.

My analysis is based in a tension between theory and practice. As a critical feminist scholar, I recognize the ways in which weight loss surgery technologies are used to regulate deviant bodies – those of obese American females. At the same time, as an obese American female, I can comprehend the difficulties and the pain that go hand in hand with living in a society that abhors fat. Accordingly, I understand that weight loss surgery is an important choice for women to have both as a means of empowerment and survival. This project is not an argument of whether weight loss surgery is empowering or disempowering to obese American women. Rather, acknowledging that it is both, I aim to delve deeper into understanding the complexity of the numerous power relationships involved in weight loss surgery technologies and culture.

This thesis is broken down into seven parts. I use the preface in attempt to explain my connection to the project and my motivation for pursuing research on weight loss surgery as a solution for obesity. I elaborate on my personal experiences of living as a fat woman in America. And, as I reflect on the identity that I have built around those experiences, I reveal the complicated and sometimes paradoxical perspectives I have about fat and weight loss surgery.

I use Chapter One to establish the context and theoretical framework for my project. Weight loss surgery technologies have been developed and have come to be understood as treatment for morbid obesity in the context of the American obesity epidemic. I reveal central issues of my project: the background conflict between the health paradigm that considers obesity as a disease of the individual versus that which considers it a disease of the environment, the role of gender in American obesity and its treatment, and how concepts of risk are used to legitimize weight loss surgery as a solution to obesity.

Chapter Two is my examination of the technologies of weight loss surgery. I provide a brief history of the use and developments of surgical techniques and apparatuses to treat obesity. I examine the current medical and policy perspectives toward this surgery and give a detailed account of the most popular surgical methods

used to produce weight loss today. I compare the medical perspectives on risk, health, and lifestyle of the patient before and after surgery.

In Chapter Three, I discuss the factors that qualify a woman for surgery, how surgery is obtained, and how it is afforded. I analyze the boundary between weight loss surgery and cosmetic surgery. I consider the complex role that social context plays in a woman's decision to have weight loss surgery. I examine representations of the surgery in the media, in "how to" guides, and in an online support group space in order to argue that the non-medical effects of the surgery play a significant role in motivating women to pursue weight loss procedures. The benefits from weight loss surgery – medical, aesthetic, and lifestyle - are notable sources of power to women. I argue that the benefits that women receive from weight loss surgery outweigh the pain and risk of the invasive procedure, life-long medicalization, and the permanent restriction of eating it entails.

I use the Conclusion to analyze the use of weight loss surgery to "fix" fat women. I deconstruct the framework for understanding obesity that considers the disease a result of crises in free will and produces weight loss surgery as its best technological fix. I illustrate the value-ladenness of health. In the Conclusion, I compare the medicalization of the morbidly obese female body before and after successful surgery and ask: which counts as a healthier body? I comment on what the valuing of one over the other says about the normative American notion of health.

In the final section, "Future Directions," I lay out a plan of future study. This thesis is the beginning of a much larger project on weight loss surgery. I point to several areas that I touch on in this work that require further analysis. I propose questions that may help direct my future work.

This thesis is an analysis of how societal values shape our ideas of health and disease, the designs and marketing of weight loss surgery technologies, and the ways in which obesity reducing operations are accepted and desired. Gender ideologies, American values of commodity capitalism, treatment that focuses on the individual, and a moral aversion to fat have all shaped the medical treatment of obesity as an epidemic and the promotion of weight loss surgery as the best available solution. In this project, I approach the question of obesity by deconstructing the terms that have framed it as a social problem and I show how and why specific technological remedies have been pursued.

# Chapter One

## Situating Weight Loss Surgery: Theories and Methods

In this project, I focus on a specific subset of obese people – morbidly obese women who undergo weight loss surgery. Bodies with a Body Mass Index greater than 40, at least one hundred pounds over ideal weight, are considered to be at serious risk for major weight-related health complications and categorized as morbidly obese. Although there are many methods and techniques available for measuring body fat and level of obesity, including anthropometry, underwater weighting, CAT scanning, infrared spectroscopy, the Ponderal Index<sup>1</sup>, and the Broca Index<sup>2</sup>, physicians commonly use the Body Mass Index (BMI)<sup>3</sup>. In fact, although obesity has the simple conceptual definition of “excessive body fat,” the clinical definition of obesity is usually expressed in terms of BMI (Allison et al., 305). BMI is a calculation that relates weight to height (weight in kg/ (height in m)<sup>2</sup>).

In 1997, the World Health Organization set universal BMI limits for overweight and obesity. Overweight is defined as BMI greater than 25 and obesity as BMI greater than 30 (Allison et al, 305). A BMI chart<sup>4</sup>, taken from a guide to obesity surgery that was written for the popular press, divides obesity into levels of severity. It also includes the level of “mild obesity” (BMI 27-30) between the World Health Organization’s cutoffs for obesity and overweight.

As BMI increases, so does the likelihood of weight-related morbidities. Health problems including high blood pressure, high cholesterol, diabetes, heart disease, stroke, respiratory problems, sleep apnea, cancer, poor reproductive health, and various psychological disorders may occur. Of the 38.8 million Americans who are considered

---

<sup>1</sup> Utilizing the Ponderal Index, body mass equals one hundred times the weight in grams divided by the square of the height in centimeters (Saunders).

<sup>2</sup> The Broca Index has been used since 1871 as a formula for calculating ideal weight. With the Broca Index, weight in kilograms should equal height in centimeters minus one hundred, plus or minus fifteen percent for women or ten percent for men (Halls).

<sup>3</sup> For the history of measurements used to determine overweight see “Criteria for definition of overweight in transition: background and recommendations for the United States” (2000) written by R. Kuczmarski and K. Flegal. Body Mass Index was first used in 1984 to provide a method for documenting overweight and evaluating weight control processes based on the simple and reliable measurements of height and weight. The calculation of BMI has evolved since 1984 to remove gender distinction.

<sup>4</sup> There are many published BMI charts, Here I refer to that which is published in Bryan Woodward’s guide to weight loss surgery, “A Complete Guide to Obesity Surgery: Everything you need to know about obesity surgery and how to succeed” (2001).

obese (BMI equal or greater than 30) and therefore at increased risk for morbidities, 19.6 million are men and 19.2 million are women (National Center for Chronic Disease Prevention and Health Promotion). Of these, 4 million are considered morbidly obese. Eighty percent of the morbidly obese are women (Guthrie). This is why I focus on women in this thesis.

## **Situating Weight Loss Surgery: The Problem of Obesity**

Even though weight control has been a priority of health policy since the 1980s, the percentage of overweight and obese Americans continues to increase. Recently, the National Health and Nutrition Examination Survey indicated that more than sixty percent of American adults are above ideal body weight standards. Thirty-five percent of the population is overweight. And, approximately twenty-seven percent of American adults are considered obese – a percentage that has nearly doubled since 1980 (National Center for Chronic Disease Prevention and Health Promotion). While the numbers of obese are increasing in other parts of the Western world, nowhere is the situation so bad as in the United States. Some liken this trend to a disease or an epidemic. For example, Robert Pool, author of Fat: Fighting the Obesity Epidemic a history of obesity research, reflects:

It is a staggering statistic. The number of overweight and obese have grown slowly enough that we have had time to get used to them, to think that it is somehow normal for so many people to be thirty, fifty, 100 or more pounds heavier than they should be. We take it for granted that at any given time a third or more of the adult population is trying to lose weight. Historically speaking, however, there is nothing natural about it. We are in the middle of a vast epidemic of obesity (Pool, 7).

### **American Obesity as Epidemic**

What does “epidemic” mean in the case of obesity? While obesity does not threaten the public order in the same way as traditional epidemics such as cholera or yellow fever, the incredible cost for treating the morbidities affiliated with obesity might be considered a threat. According to the U.S. Department of Health and Human Services, the total cost of obesity in 2000 was an estimated \$117 billion. Significant portions of this price tag can be attributed to costs of prevalent co-morbidities of obesity: type 2 diabetes, coronary heart disease, and hypertension. Additionally, obesity plays a factor in an estimated 300,000 deaths per year (Allison and Saunders, 316). This is a statistic indicative of heavy emotional as well as financial cost.

In addition to the financial burden, the prevalence of obesity is a visual challenge to America’s deeply embedded thin ideal. By invoking the term “epidemic” in its description of obesity and thereby enrolling the notions of chaos, large numbers of death, and the universal threat of contagion, American health policy makers strike hard as public body policers. By referring to obesity as an “epidemic,” particularly in the way that the label symbolizes loss of control, the government (in combination with medical workers)

identifies individuals who have failed to appropriately regulate themselves to meet socially valued health standards. The term “epidemic” marks obese individuals as needing to be controlled, monitored, and changed for the sake of the public good.

American obesity is expensive and the numbers of obese are increasing. I think that it is also important to think about the serious moral revulsion associated with obesity in combination with its prevalence as a threat to the image of our country. In my opinion, the term “epidemic” is in part an implement of government image-saving policing that gives an important message to the rest of the world: Obese Americans are sick Americans and that the country should not be judged on the aesthetic that they provide and the negative values associated with that aesthetic. We are working to control these sick people. The term “epidemic” can be considered an instrument of “health fascism” that establishes a class of ‘unfit’ obese Americans (Edgley and Brissett, 260). It legitimates and reinforces the stigmatization and moral revulsion felt towards this deviant group. This perspective shapes the methods by which obesity is treated.

### **Paradigms for Treating Obesity**

There are at least two paradigms for treating obesity. The first is the environmental-policy approach that tries to fight the epidemic at its contextual source – this involves the examination and regulation of societal patterns of food consumption and exercise. The second targets individuals and encourages them to treat their illness and protect themselves as best as possible from the wrath of the epidemic.

Efforts to prevent overweight and obesity in America are based upon the identification of risk factors in the environment. Current health policies recognize the need to change the environment as integral to thwarting the obesity epidemic. The following passage, part of a message from U.S. Surgeon General, David Satcher, written as a forward to the United States Department of Health and Human Services report, The Surgeon General’s Call to Action To Prevent Overweight and Obesity (2001), emphasizes the perceived importance of preventative measures.

Many people believe that dealing with overweight and obesity is a personal responsibility. To some degree, they are right, but it is also a community responsibility. When there are no safe, accessible places for children to play or adults to walk, jog, or ride a bike, that is a community responsibility. When school lunchrooms or office cafeterias do not provide healthy and appealing food choices, that is a community responsibility. When new or expectant mothers are not educated about the benefits of breastfeeding, that is a community responsibility. When we do not require daily physical education in our schools, that is also a community responsibility. There is much that we can and should do together (United states Department of Health and Human Services).

The Surgeon General’s recognition of the fight against obesity as a community effort fits with the public health paradigm that recognizes obesity as an epidemic in

America. As the Surgeon General highlights, the environmental approach to fighting the obesity epidemic would include changes in the structure of transportation, work, and school in order to encourage physical activity and discourage sedentary behaviors. Preventative policy also promotes the availability of healthy foods while restricting that of unhealthy foods. However, it is easier to make suggestions and policy changes for publicly supported institutions like schools than it is to regulate things like what food is available outside of the schools in privately run markets and restaurants. While wide spread regulation might be necessary for preventative policy success, such attempts face the challenge of acting against societal customs and economic interests (Battle and Brownell, 758).

Environmental interventionist tactics have been proposed. For example, in 2000 The Center for Science in the Public Interest, a national public interest group, launched a media campaign to support the creating of a “fat tax.” The group argued that unhealthy “junk foods” like soda and candy that seemingly contribute to our obesity epidemic should carry a tax. According to the Center for Science in the Public Interest, the collected tax should be used to fund health-promotion programs. While the fat tax, reminiscent of the cigarette tax, would be a form of environmental policy in its standard offering of disincentive through price inflation, it would also be a way for the government to turn a profit from people who do not choose to live by a socially acceptable diet (Newby, 1-2). The fat tax could be an effective way for the government to tell us what it thinks is right/healthy. They could use it as a tool to regulate our behavior and our bodies. As public health measures always have, such obesity-preventing legislation directly posits the government’s values of public health against individual freedom and choice. Additionally, the fat tax avoids a complex understanding of why Americans are obese. It does not recognize the seriousness and pervasiveness of our toxic environment (Battle and Brownell, 761). We have access to and are encouraged to consume a diet that is delicious, widely available, and low in cost. The same diet that is high in fat and calories.

Efforts in the environmental paradigm are limited by consumer capitalism. Prosperity in America is indicated by consumption – more is better. However our consumptive patterns directly contradict the environmental restraint that would need to take place to approach obesity treatment at an environmental level. It is simply un-American to encourage people to buy less food, less gas for their cars, and less equipment for sedentary activities (video games, movie tickets, computers, etc.). The environmental approach to regulating obesity is limited because such an approach would discourage participation in the economy. This situation necessarily reinforces the emphasis on obesity-preventing measures that target the individual.

Historically, most weight loss treatment methods (diets, exercise, behavioral modification, pharmaceuticals, etc.) have worked by treating the individual. As a treatment for morbid obesity, weight loss surgery, the subject of this project, is also part of the target-the-individual paradigm. The individual, especially in the case of obesity, is assumed at fault for her condition under this approach to treatment. Obesity is perceived to result from the failure of a person to control her own body and behavior. It is seen as self-indulgent. For example, obese individuals cost taxpayers money because they can

require government assistance. In addition, medical treatments for obesity related illnesses put a drain on the health care system that results in increased health insurance rates for all. Why should the non-obese have to pay for the selfish behavior of the obese? Because of this perspective, proposed solutions tend to call for personal responsibility (Battle and Brownell, 761). This paradigm considers the individual as a threat to public health. This is an idea that seems to necessitate strengthened governmental oversight and regulation of individuals.

### **Weight Loss Surgery as Treatment for Morbid Obesity in Women**

According to medical perspectives, morbid obesity is a problem that can only be solved with significant weight loss. Traditional treatments that include restriction of diet, behavior modification, and pharmacological therapy generally fail because of the need for long-term implementation to achieve the necessary reduction in weight. Current medical practice suggests that weight loss surgery, which may be referred to as “stomach stapling” in popular culture, is the only viable method/technology/treatment by which to attain solution to morbid obesity.

Weight loss surgery involves significantly reducing the size of the stomach to restrict food intake (gastroplasty), narrowing the connection between the stomach and intestines so that the emptying of food from the stomach is delayed, and manipulating the intestine such that food does not go through and is therefore not absorbed by the duodenum (part of the intestine). The surgery is a multi-step, invasive procedure that involves serious risks including infection, hernia, pulmonary embolism, blood clots, and malnutrition. It may result in death. Post-operative individuals must be monitored for these detrimental outcomes, while they follow a strict dietary regimen (eating as little as 2 ounces of food at a time). Medical professionals believe that the risks of morbid obesity outweigh the risks of bariatric surgery. This position is bolstered by the perceived benefits that come with the 20-50% weight reduction that commonly occurs in the twenty-four months following surgery.

In this project, I am specifically concerned with morbidly obese females (80% of the morbidly obese are females) that undergo weight loss surgery in the United States. Gender plays an important factor in understanding bodies in a land of “health fascism” (Edgley and Brissett, 260). Morbidly obese women are products of (and contributors to) a context that perceives them as lacking in self-control and constantly stigmatizes them for their deviation from the thin ideal. They are regularly discriminated against and are not protected by the law. In the U.S., women greatly outnumber men as consumers of gastric bypass surgery. While this disproportionality is related to the high percentage of morbidly obese women, in this thesis I discuss how the female identity of the weight loss surgery consumer relates to the marketing of the surgery, the specifics of the technology, and to culture.

## **Theoretical Framework**

The overall framework and analytical perspectives for this project are from the field of Science and Technology Studies (STS). STS is an interdisciplinary exploration of the relationships between science, technology, medicine, and society. It is informed

by disciplinary practices that include history, sociology, philosophy, cultural studies, and policy studies. The STS paradigm is built on the notion that science, technology, and medicine are not value neutral. Rather, they are ideas, institutions, and artifacts that embody and reflect cultural values. According to STS, science, technology, and medicine are not made of objective truths and facts. Rather, as products of the people they include the bias of the people. In the STS framework, science is culture.

STS pays attention to boundary negotiations<sup>5</sup>. It pays attention to the network of interactions that shape actors (animate and inanimate – to include the public, experts, instruments, laboratories, diseases, and facts) and power relationships among these actors. STS seeks to understand the cultural, intellectual, material, and social dimensions of technoscience (science and technology as indistinguishable constructs). Among many other things, STS explores knowledge production and scientific and technological practice. STS is a reflexive program that analyzes both how technoscience shapes society and how society shapes technoscience.

As far as I can determine, STS scholars have not yet turned their critical lens upon weight loss surgery. While this area of study is new, some of the ideas that inform my work are not. In fact, the very idea of the technological fix, has been the focus of STS analysis since Alvin Weinberg introduced the concept in 1966<sup>6</sup>. Pre-existing work in STS provides insight into understanding gender in combination with the insistence that the body is symbolic of health and moral fitness in our meritocracy<sup>7</sup>. I apply these ideas in my analysis of how weight loss surgery has been shaped (as both an apparatus and a culture) and why women accept the risk that the surgery entails.

STS research on cosmetic surgery is particularly relevant to my work. However, the analyses of cosmetic surgery that have been done to date do not consider weight loss surgery. While Elizabeth Haiken discusses liposuction in her history of cosmetic surgery, *Venus Envy* (1997), she does not extend her analysis to obesity reducing surgeries that affect the digestive tract.

While my research and analysis of gender and weight loss surgery is in part an extension of work that has already been done in STS, it is also notably unique. I contribute to the STS literature in my recognition that weight loss surgery frames the thin body as a medical imperative. I build upon STS work by identifying and examining a blurred boundary between medical and aesthetic procedures.

---

<sup>5</sup> See Thomas Gieryn's work *Cultural Boundaries of Science: Credibility on the Line* (1999). Gieryn defines boundary-work with specific reference to science as "the discursive attribution of selected qualities to scientists, scientific methods, and scientific claims for the purpose of drawing a rhetorical boundary between science and some less authoritative residual non-science" (4-5).

<sup>6</sup> See Alvin M. Weinberg, "Can Technology Replace Social Engineering?" *University of Chicago Magazine*, LIX (October 1966): 6-10.

<sup>7</sup> See Terry and Ulra's *Deviant Bodies* (1995).

I also contribute to STS work with my method of examining literature in the popular media to gain understanding of weight loss surgery technologies. This method is rationalized by contemporary STS work on popularization of science. Recently, STS scholars have problematized the long-held perspective that scientific knowledge determined by experts loses its theoretical power as it trickles down for popular consumption. In the article, “Science in Popular Culture” (1994), Roger Cooter and Stephen Pumfrey suggest that the scientific and popular domains of knowledge shape each other. They argue that “(P)opularization, conceived as a process of translation and enrollment, reconfigures the cultural content of scientific activity and hence conceivable reconfigures the nature of science itself” (251). Cooter and Pumfrey urge STS scholars to be responsive to the diversity of sites in which science is produced and reproduced. My work on weight loss surgery uses knowledge from representative texts of popular culture such as guidebooks and *People* magazine with the idea that the popular understanding and representation of science actually shapes the science.

This thesis lays out the plan for a larger research project on weight loss surgery. I explicitly point to significant future research directions in the last section of this work. My future work on weight loss surgery will continue to provide significant contribution to the STS literature and the understanding of relationships between gender and technology.

In the sections that follow, I provide synopses of relevant work under the headings of generalized themes. This narrative provides a foundation of ideas for use in my analysis.

### **How Medical Technologies Have Been Used to Control Women**

My understanding of the complicated relationships between gender, power, technology, and medicine in this project is informed by works of feminist STS scholars. These include Dorothy Roberts’ chapter, “From Norplant to the Contraceptive Vaccine: The New Frontier of Population Control,” from her book *Killing the Black Body: Race, Reproduction and the Meaning of Liberty* (1997), which is a historical investigation of the coercive marketing of Norplant to poor black women in a government-regulated effort to control the ‘underclass.’

Roberts demonstrates how racially motivated social policy can threaten reproductive rights. Under the banner of increasing poor black women’s access to Norplant, a long-term and highly effective contraceptive, with the supposed intent of enhancing women’s reproductive freedom, racial policies actually restricted the reproductive rights of women in targeted groups. Women were coerced into consenting to have Norplant surgically implanted with financial incentives or as prerequisite for social service benefits. Even though this practice caused serious detrimental health side effects, the Norplant women were not given access to adequate healthcare. When they desired to have the contraceptive removed, they were at the mercy of the overseeing doctor. The doctor had the power of using his own judgment and therefore was left to impart his own social values in making the decision of whether, or not, the women should be allowed to have the Norplant removed. Instead of giving poor black women greater reproductive freedom, Norplant gave both the policy-making government and the

Norplant-removing doctors the rights to and power of control over the women's procreative decisions.

In this thesis, I consider morbidly obese females as an 'underclass' that is controlled by weight loss surgery technologies. While coercive incentive and pressures to use obesity reducing surgeries is much less explicit than it was in the case of Norplant, the situations are similar in that the choice of a morbidly obese woman to obtain and/or reverse (and even the possibility of reversal as dictated by technology design) weight loss surgery is affected by her doctor's social perspectives on fat, health, and gender.

### **Reinforcing Norms by Fixing Bodies**

Other studies have suggested ways of making sense of weight loss surgery. I draw upon several articles from Patrick Hopkins' edited collection, Sex/Machine: Readings in Culture, Gender, and Technology. These deal with cosmetic surgery (Morgan, 1991), intersex surgery (Kessler, 1990), and transsex surgery (Stone, 1991). This literature discusses the regular practice of reinforcing societal norms through medicine and the associated technological fixing of bodies. It illustrates that the existence of a technological fix to a perceived problem changes the way that bodies are understood.

In her article, "Women and the Knife: Cosmetic Surgery and the Colonization of Women's Bodies" (1998), Kathryn Pauly Morgan argues that women are pressured into taking actions to cut and reshape their bodies by the social context in which they exist<sup>8</sup>. According to Morgan, women are taught to consider their bodies as sources of power that can be enhanced through beautification. This movement to attain beauty happens in a Western, white-male-supremacist, racist, anti-Semitic, and heterosexist context. Beauty ideals are determined by this context. And, bodies are judged in this context. Morgan's work on cosmetic surgery informs my consideration of the aesthetic components of morbid obesity and weight loss surgery.

Suzanne Kessler argues that physicians make quick decisions to reconstruct the genitals of intersex infants so that the genitals appear to fit within the normative and distinctive categories of male or female in the article, "The Medical Construction of Gender: Case Management of Intersex Infants" (1998)<sup>9</sup>. Officially, this is done with the purpose of giving parents a clear indication of how to raise their child. By finding a 'solution' to the gender ambiguity of the intersex infant, the physician is able to maintain the male or female genital dichotomy that society, parents, and the intersex infant is assumed to value. Thus, the physician is empowered by surgical technology to make intersex bodies fit with social norms. This analysis is important to my thesis because it parallels the power that weight loss surgery technologies afford to doctors to make morbidly obese bodies fit with the norms of health and femininity.

---

<sup>8</sup> For a more thorough analysis of cosmetic surgery see Elizabeth Haiken, Venus Envy: A History of Cosmetic Surgery (1997).

<sup>9</sup> See Alice Domurat Dreger's work, Hermaphrodites and the Medical Invention of Sex (1998), for a detailed analysis of the medical management of intersexed individuals.

In “The *Empire Strikes Back: A Posttranssexual Manifesto*” (1998), Sandy Stone describes the role of the medical establishment in determining the criteria and establishing the guidelines for selecting eligible patients for sex-change surgery<sup>10</sup>. Stone argues that because the physicians and the criteria for ‘fixing’ transsex value the male or female dichotomy, transsexuals are forced to create histories and performances that fit the rigid binary categorization, if they want to be allowed to have the surgeries that they desire. Transsexuals are coerced by the medical establishment to regulate their own bodies in a specific and dictated way. According to Stone, the simultaneous desire for transsexuals to ‘pass’ and the need of physicians of transsexuals to meet criteria informed by their mutually exclusive male or female classifications have rendered the transsexual invisible. Stone’s account draws attention to the medical community’s power over bodies – to silence them, delegitimize them, and construct them – and the group’s ability to reify social norms through medical practice. Stone’s analysis of the power of physicians informs my analysis of weight loss surgery culture. In particular, I draw from Stone’s analysis in my discussion of the steps that morbidly obese females must go through in order to obtain weight loss surgery.

### **Deconstructing Health**

My research is also informed by sociological perspectives on public health. Contributing literature includes Charles Edgley and Dennis Brissett’s article, “Health Nazis and the Cult of the Perfect Body: Some Polemical Observations” (1990), which asserts that self-righteous intolerance, embedded in seemingly objective science and medicine, is the driving force behind the health movement that considers health an individual responsibility and a moral obligation.

The paradigm of health as an individual responsibility justifies intervention in the lives of those who fail to adequately achieve health<sup>11</sup>. Edgley and Brissett argue that we live in a context of “Health Fascism” where groups and institutions are increasing the surveillance and control over what people put into their bodies and what people are doing with their bodies (260). These groups and institutions assert their power, using tactics of intimidation, harassment, and stigmatization to establish a totalitarianism around health.

According to Edgley and Brissett, Health Fascism is the quest for an increasingly improved and closer-to-perfect body – socially and individually. “Health Nazis” operating in this framework believe in a strong connection between physical bodies and the social body (260). In line with the ideas of social Darwinism, they believe that unhealthful conditions should be controlled and disease should be eliminated to improve society. This, of course, extends to the control of people who have unhealthy practices and the elimination of the people whose existence is considered symbolic of decadence and death – the ‘unfit’.

---

<sup>10</sup> Bernice L. Hausman discusses the relationship between gender and technology with regards to transsexualism in her book, Changing Sex: Transsexualism, Technology, and the Idea of Gender (1995).

<sup>11</sup> For more discussion of this perspective as the “American Way” see Paul Starr’s social history of the American medical profession, The Social Transformation of American Medicine (1982), especially Chapter 5.

Health Nazis and Health Fascism construct an inferior class of people who come to be associated with the bad habits of society – they are undependable, lazy, inefficient, and unclear in mind, spirit, and body. With sickness seen as the result of moral failure of the individual, the categorization of ‘disease’ becomes more of a cover word for accusations of weak willpower and faulty character than a true medical diagnosis. Science, with its reputation of objectivity, is used to disguise sins.

Edgley and Brissett’s work deconstructs health – one of America’s most valued conditions. This deconstruction is central to my discussion of weight loss surgery as a solution to morbid obesity in women. To be healthy is to achieve, perform, and / or conform to normative behavior and practice. In opposition, sickness and disease are concepts constructed to categorize, stigmatize, and later to control those who do not do what is normative. Because health is constructed, what counts as health changes over time and paradigm, or set of shared values. As the paradigm shifts, so do science, medicine, and technology. As the paradigm shifts, so does the line between addiction and free will attributions.

I call upon literary theorist Eve Kosofsky Sedgwick, who in “Epidemics of the Will” (1992) illustrates the relationships between will, addiction, consumerism and our conception of health. Sedgwick explores the extension of addiction-attribution to potentially include every form of substance ingestion and every form of human behavior. She argues that because addiction has come to include the ingestion, refusal, or even the partial ingestion of a substance that could itself be anything from a foreign substance to a normal food, the locus of addictiveness must be neither the substance nor the body. According to Sedgwick, addiction is constructed in opposition to healthy free will and the ability to freely choose health. The distinction between what is considered an act of will and what is considered a compulsion is determined by the values of the paradigm.

### **Body and Identity**

In his book, Modernity and Self-Identity: Self and Society in the Late Modern Age (1991), Anthony Giddens argues that we create and recreate narratives – the stories of who we are and explain how we came to be as we are now. According to Giddens, the self is not an inherent or static set of traits or observable characteristics in contemporary times. Instead, the self is continuously made and remade. Free from the protection and proscription of small community and traditional settings, we must decide daily and almost moment to moment how we will live. Giddens argues that everyone living in late modernity answers the fundamental questions of ‘what to do?’, ‘how to act?’, and ‘who to be?’ discursively or through daily behavior. According to Giddens, the reflexive project of self is an individual’s responsibility. The narrative of self-identity is created and continuously revised as an individual makes choices from a plurality of options; balancing opportunity and risk while being influenced by mediated knowledge and experience.

The modern self is embodied. Giddens argues that the reflexive project of self extends to the body. It can no longer be fed, shaped, or dressed according to traditional terms. Like the self, the body is not a static, given, or fixed biological entity. Rather than

a passive object, the modern body is part of an active system. We are in control of our bodies and make moment-to-moment choices as to how our bodies will be. An individual makes the decisions that design his or her own body. The body of late modernity is fully available to be worked on and changed.

Giddens argues that the body has become inseparable from the self and that both are deeply involved with modernity's reflexivity. The ways that we make and control our bodies, and the ways we have our bodies act in day-to-day life, are connected to our making and sustaining of self-identity narratives. It is significant that the self is constantly on display in terms of its embodiment. In late modernity, appearance has come to designate personal identity. Observers use the visible appearance and apparent demeanor of an individual's body to interpret the self-identity of the observed individual. According to Giddens, "What other people appear to do, and who they appear to be, is usually accepted as the same as what they are actually doing and who they actually are" (127).

A woman's primary expression of her individual identity is her body. Joan Jacobs Brumberg's analysis of girls' bodies as evidence of deep-change in twentieth century life, The Body Project: An Intimate History of American Girls (1997), is based on this concept. Brumberg argues that the body has become the central and most important project for twentieth-century American girls. A girl's experience of biological events is shaped by the world that she lives in. She answers the questions, "Who am I?" and "Who do I want to be?" through the management and understanding of her own body (Brumberg, xxiv). The body is constantly on display. It is a public project (107).

Both Brumberg and Giddens connect the body project of reflexive self-identity with risk culture and commodity capitalism. Because risks, from those considered to be minimal to those perceived as apocalyptic, are ever present in our environment, we think in terms of risk and risk assessment. This thinking shapes the choices that we make about our embodied identities. Giddens argues that the project of self is framed by market-governed freedom of choice. Because of this, the genuine project of self is translated into one of consumption of desired goods, and appearance becomes the visible sign of successful consumption. Brumberg gives many examples of this in her book. These include the contemporary celebration of menarche through the purchase of feminine hygiene products and a trip to the mall to acquire the accoutrements of womanhood: bras, makeup, high-heeled shoes, and pierced ears.

### **Gender and Weight Loss Culture**

Gender plays a significant role in weight loss culture. Kandi Stinson discusses eating, dieting, and being female in her book Women and Dieting Culture: Inside a Commercial Weight Loss Group (2001). She argues that to be female is to diet. The yearly 33 billion dollar diet industry is supported by 65 million American dieters (Stinson, 3). Stinson cites research that indicates that women are more likely than men to take action, whether that action is diet, pills, or surgery, to lose weight (Stinson, 4). She connects women's increased likelihood of dieting with antifat attitudes that she considers more directed at women than at men. This relates to the mind/body dualism that associates men with the rational, logical, and pure mind and women with the emotional,

desire-filled, unruly body. The fat female body is considered especially threatening in the mind/body framework as it represents a body that has run out of control and is unable to regulate itself (Stinson, 6). Societal and individual behaviors are shaped by this belief. The threat of the morbidly obese female body influences the imperative of the obesity epidemic and our willingness to accept the risks and restrictions of weight loss surgery as the only effective treatment.

### **Fat and Obesity**

Richard Klein gives the history of fat (the word and the thing) in his informative and entertaining “postmodern diet book,” Eat Fat (1996). Klein “rejects the modern rejection of fat” (Klein, 23).

Fat is beautiful, sexy and strong. Politicians cultivate it, singers require it, gourmets appreciate it, and lovers play with it. *Fat* is a fabulous three-letter word (Klein, xviii).

The National Association to Advance Fat Acceptance (NAAFA), a human rights organization that is dedicated to improving the lives of fat people, works to eliminate discrimination based on body size and to provide fat people with the tools for self-empowerment. One of NAAFA’s purposes is to “empower the large number of people regarded by the medical profession as “obese” to accept themselves, to live more fulfilling lives, and to promote acceptance of fat people within society” (NAAFA, online).

***Fat*** is not a four-letter word. It is an adjective, like short, tall, thin, or blonde. While society has given it a derogatory meaning, we find that identifying ourselves as *fat* is an important step in casting off the shame we have been taught to feel about our bodies (NAAFA, online).

NAAFA draws the distinction between *obese* and *fat* recognizing *obese* as a derogatory medical term and using *fat* as a tool for empowerment. The size acceptance movement argues that because *fat* has become one of the most powerful words in the English language, it is important to reclaim the word. Marilyn Wann writes about the power of this process in her zine style book, FAT!SO?: Because you DON’T have to APOLOGIZE for your size! (1998).

That’s why it’s time to take this powerful, awe-inspiring word back from the bullies! It’s time to put *fat* into the hands of people who will use its power for good, not evil! It’s time, my fat brothers and sisters, for us to embrace the F-word!

When you claim the word *fat*, no one can use it against you ever again. Imagine that. Aunt Gladys tells you you’re fat, and you say, “Yes, I am. Thanks for noticing!” Does she blink? Yes. Does she go up in a puff of smoke? No. Does she stop pestering you? Most likely.

Reclaiming the word *fat* is the miracle cure you've been looking for, the magic trick that makes all your worries about weight disappear. Do you want to feel good about yourself? Silence your tormentors? Look better in miniskirts? Use the F-word. Dorothy made her wish come true by saying, "There's no place like home." Well, I'm not Glenda the Good Witch, but I'm here to tell you that all you have to say is the magic word, *fat*. Say it loud, say it proud: Fat! Fat! Fat! Shake your belly three times and there you are, at home in your body, free from the guilt and the shame, the stress and the starvation, and the self-hatred. (And yes, when you use the F-word, you carry yourself with pride-so you will indeed look brilliant in above-the-knee fashions.) The trick is to really believe that there's no place like home, that there's nowhere you'd rather be than in the wonderful body you already have (Wann, 18-19).

As this passage illustrates, the term *fat* has an important meaning that is distinct from the term *obese*. This distinction is important in this thesis.

### Terminology

I use two sets of terms that may appear interchangeable in this project: *fat* and *obese* (or *overweight*, or *morbidly obese*) along with *body* and *self* (or *individual*, or *person*). The distinction between *fat* and *obese* is political. Words that include *overweight*, *obese*, and *morbidly obese* are medical labels that correspond, among other things, with a locus on a BMI chart and a number on the scale. Using these terms acknowledges that there is some 'normal' weight that exists. This standardized normal weight is valued as healthy and achievable by all. The labels *overweight*, *obese*, or *morbidly obese* signify deviance from the norm, pathology, and increased medical risk<sup>12</sup>. The meanings of the terms *obese* and *fat* overlap. They both have negative cultural connotations and carry with them images of gluttony, ugliness, and laziness. However, while the *obesity* label flourishes in the medical realm, the term *fat* is being reappropriated as part of the size acceptance movement.

In writing this project I use the terms *overweight*, *obese*, and *morbidly obese* in reference to medical categorization, diagnosis, and culture. I tend to use the term *fat* when reflecting upon personal experience. To me, life as a *fat* person is bigger than life as an *obese* person. *Fat* is the label I use when I talk about life outside the doctor's office. It is how I describe myself in day-to-day life. While the distinction between *fat* and *obese* is obviously blurry, in my mind *obesity* carries a more serious and institutionalized meaning. Most importantly, as a supporter of the size acceptance movement, I consider *fat* to be a much more empowering label.

While I intend *fat* and *obese* to have separate but related meanings, I use *body* and *self* (or *individual* or *person*) almost interchangeably in this paper. I do this according to

---

<sup>12</sup> For a philosophical discussion of the normal and the pathological, see the locus classicus, Georges Canguilhem's On the Normal and the Pathological (1966).

Giddens' understanding that self-identity and the body are unified as a reflexive project in late modernity.

## **Research Methods**

I utilize a combination of research methods in this project. I use the method of autoethnography to infuse this study of culture, science, technology, and medicine with my own “situated knowledge.” My discourse analysis draws heavily from professional medical and scientific sources as well as books and articles created for the popular press. I explain and justify these research methods in the sections that follow.

### **Situated Knowledges**

As I wrote in the preface, I consider my life-long experience of living as a fat female to be an important aspect of my research. In this project, I grapple with the issues of the obesity epidemic in the United States as one of America's obese. While I explore weight loss surgery as a potential solution to our public health crisis, I ponder the possibility of using it to solve my own weight problem. This project is very personal. While it is important that I resist speaking for all fat females out of fear of essentialization and in respect of all of our differences, I can speak for myself and from my own experiences. I learned this from the feminist studies of science and technology and am particularly inspired by Donna Haraway's work “Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective” (1988).

According to Haraway, feminist objectivity is about limited location, situated knowledge, and particular and specific embodiment. It is not about transcendence of limits and responsibilities, unlocatable/irrisponsible knowledge, and the splitting of subject from object. This postmodern feminist objectivity holds that all ways of visualizing/organizing the world are partial and mediated. It calls for contestation, de/construction, and connections.

Haraway extends her analysis of situated knowledges to include the split and contradictory self. In doing so, she notes the heterogenous multiplicities that simultaneously exist in the self. Like vision, subjectivity is multidimensional. Therefore, Haraway asserts that knowing the self must always be partial. And, we can join with others to see together. There is no single standpoint. Situated knowledge is about communities and the collective of partial views from somewhere. It means understanding the world as subject (an active, “trickster” agent) instead of an object (unified and unchanging) and knowing that there cannot be a single unified theory of the world. Haraway argues that our situated conversations with the world together constitute our knowledge.

## **Autoethnography**

My methods for this research project borrow from autoethnography<sup>13</sup>. I am studying my own community, the way of life of people like me, and in many ways, my own cultural experiences. Autoethnography allows for the study of one's own culture and oneself as a part of that culture (Patton, 85).

Autoethnography is an autobiographical genre of writing and research that displays multiple layers of consciousness, connecting the personal to the cultural. Back and forth autoethnographers gaze, first through an ethnographic wide-angle lens, focusing outward on social and the cultural aspects of their personal experience; then they look inward, exposing a vulnerable self that is moved by and may move through, refract, and resist cultural interpretations. As they zoom backward and forward, inward and outward, distinctions between the personal and cultural become blurred, sometimes beyond distinct recognition (Ellis and Boucher 2000)

In autoethnography, the researcher uses his or her own experiences to gain insights into the larger culture of which he or she is a part. Autoethnography fundamentally includes the researcher's self-awareness, introspection and reporting of his or her own experiences as important data for the project (Patton, 86).

I am choosing to use autoethnography for my project because the method is highly reflexive. It allows me, as researcher, to be both a producer and product of the text (Patton, 86). Autoethnography is the best method for this research because through it I am able to establish a set of assumptions based on my personal experience and reflections. These assumptions become fundamental to my analysis. For example, I do not assume that the women who undergo weight loss surgery have not been exposed to feminist critiques of body ideals or technology. Instead, I assume that, like me, they experience a tension between the desire for a technological fix and a feminist will to resist one. As a research method, autoethnography fits well with both my claim to situated knowledge and the interdisciplinary character of this project.

I wrote this thesis in first-person narrative form in order to purposefully acknowledge (1) that the work is shaped by my experience and perspective and (2) that these personal experiences open a window to larger social issues involving the construction of health and obesity as social problems and the development of weight loss surgery technologies to manage deviant bodies. I aim to continuously reflect on and

---

<sup>13</sup> Autoethnography pointed me to certain areas for investigation such as my idea to include popular literature on weight loss surgery because it was through such popular literature that I first learned of weight loss surgery technologies. While this thesis is not in the true form of autoethnography, this would involve constant reflection, it is shaped by these methods. In order to more thoroughly incorporate autoethnographic methods, I could have written this thesis in the form of a journal documenting the materials that I read and thought about that have led me to my current decision not to pursue weight loss surgery as a treatment for my own obesity. My analysis may take this form in future work.

make visible the values that are included in my research lens. This research is embodied. It is situated. And, it is in my voice.

### **Discourse Analysis**

In addition to autoethnography, I use discourse analysis of professional medical texts and literature written for the popular press. I do this in order to learn the relationships between the two types of text and because I want to recognize the similarities and differences between professional and popular perspectives of weight loss surgery. In my discourse analysis, I understand that in the popular press, perception matters as much as medical facts. For example, although medical texts say that weight loss surgery is in no way cosmetic, many women state that they pursue the surgery in order to be able to do things like look good in their wedding gowns (Adato and Espinoza, 138). While the goal of aesthetic improvement obviously conflicts with the medical rationale for surgery, I consider it relevant and indeed important for my purposes. Even though media representations of women and weight loss surgery do not have the power of detailed scientific and statistical analysis of data, they do have the power of providing the image of what people popularly believe about weight loss surgery. Such representations act both to give women voice and to perpetuate meanings surrounding the surgery – whether in line with the medical perspective or not.

My lens for discourse analysis is informed by work in the social, philosophical, historical, and cultural studies of public health, obesity, fat, and bodies. I use information and statistics from reports issued by government offices that include the National Institutes of Health and the Center for Disease Control. I draw heavily upon information produced by the American Society for Bariatric Surgery and American medical and surgical journals. These sources are important because they provide the professional, governmental, and medical perspectives on weight loss surgery. These documents give official endorsement to weight loss surgery technologies and shape the direction of their future developments. Because of the online availability and synthetic report form, government documents are often read by lay individuals researching weight loss surgery on the Internet. Information from medical and surgical journals is much more difficult for the non-specialized person to understand. However, this professional information is filtered, synthesized, and clarified by the umbrella organization for bariatric surgeons, the American Society for Bariatric Surgery, and is readily available online.

In order to understand who is being targeted for the surgery and what messages are being conveyed, my study of weight loss surgery includes literature written on the topic for the popular press. I look to books which have been written both by bariatric surgeons and post-operative, morbidly obese women, because they are meant to serve as guides for those seeking weight loss surgery. These are the books that obese American women read. In addition to studying the material provided in these guides, I used the books to gain familiarity with and understanding of the medical terminology used in professional journals. It is important to note the role these publications play in helping both the consumer/patient and the non-medically trained researcher make sense of weight loss surgery.

In addition to guidebooks, I call upon articles in newspapers and popular magazines that advertise the dramatic effects of weight loss surgery to the general public. These articles are significant because they introduce women to the possibility of a technological fix to morbid obesity and they frame the necessity and legitimacy of such a fix. To complement the personal testimonials found in the promotional books which are generally positive, I look to articles that focus on morbidly obese people who describe themselves as “weight-loss surgery survivors” and question the decisions that they made to undergo surgery.

In the following chapter, I explain the contemporary technologies of weight loss surgery. Through historical details I illustrate how the technologies came to take their specific shape- a shape that has been affected by the fact that most perspective consumers of the surgery, 80% of the morbidly obese, are female.

## **Chapter Two**

# **Stapling, Bypassing, and Banding: A Short History of Weight Loss Surgery**

In this chapter, I examine the history of weight loss surgery from its beginnings in the middle of the twentieth century through practices that are popular today. The historical overview is an important contribution to the interdisciplinary understanding of weight loss surgery. Understanding the origins and developments of weight loss surgery, its successes and failures, and its current acceptance contributes significantly to my analysis of weight loss surgery technology and culture today.

This history reveals the long-held desire for a “technological fix” to obesity (Weinberg, 32). The rationale behind the developments made to the surgery are connected to issues of acceptable patient risk, the meaning of “success,” and the patient’s role in compliance. This chapter draws upon sources that include original medical texts and contemporary weight loss surgery “how to” guide books along with web-based information from the National Institutes of Health, the Center for Disease Control, the American Society for Bariatric Surgery, and Spotlight Health (the organization that popularized weight loss surgery in America).

It is important to note that the “how to” guides were written for the popular press. They target the average candidate for weight loss surgery. Because of this, descriptions of surgical technique include minimal jargon. I found these descriptions not only useful for insight into how the average patient might understand the surgery but also for helping me to get a grasp on the complicated, professional medical texts.

Before it is possible to comprehend the details of and differences between the various forms of weight loss surgery explored in this history, it is foundational to understand the general physiology and functioning of the normal human digestive system<sup>14</sup>. Through digestion, food and drink are broken down into molecules of nutrients. These molecules are absorbed into the blood and dispersed throughout the body to support cells and provide energy.

Digestion involves the mixing of food, its movement through the digestive tract, and its chemical breakdown. This process occurs in the tube-like tract that runs from the mouth, where food enters the body, to the colon, from which waste is expelled. After food is swallowed, it is propelled through the digestive tract by peristalsis, a unidirectional, involuntary series of muscle movements. Food moves through the

---

<sup>14</sup> For a diagram of the Digestive System see the United States National Institute of Diabetes & Digestive & Kidney Diseases of the National Institutes of Health, ‘Your Digestive System and How it Works’ (<http://www.niddk.nih.gov/health/digest/pubs/diges.htm>).

esophagus to the stomach. The normal stomach, which is approximately the size of two fists, stretches to store between one and a half to four quarts of material (Boasten, 48). In the stomach, food and drink are mixed with digestive juices. The mixture is then moved into the small intestine.

The small intestine is about twenty feet in length and consists of three parts. In normal digestion, food moves from the stomach into the duodenum, the first part of the small intestine. The duodenum is less than one foot long (46). Bile and important digestive enzymes that have been produced in the liver, pancreas, and gallbladder travel through a small passageway, the common bile duct, into the duodenum and mix with the digesting food. The contents of the duodenum proceed through the other longer sections of the small intestine, the jejunum and the ileum.

Digested nutrients are absorbed through the walls of the small intestine. Waste products including food that has not been digested and absorbed move into the colon (also known as the large intestine). After a few days, the waste is expelled from the body in the form of feces (United States National Institute of Diabetes & Digestive & Kidney Diseases of the National Institutes of Health).

## **A Brief History of Bariatric Surgery**

Bariatrics is the medical specialty that focuses on weight loss and the treatment of morbid obesity. The bariatric surgeries that are currently performed are the results of over forty years of research and practice. Noteworthy events in the history of bariatric surgery began in 1954 with the work of several doctors affiliated with the University of Minnesota in Minneapolis.

### **1954 - The Beginnings**

During the first half of the twentieth century, surgeons noticed that the operations they performed to treat cancer or ulcers that involved the removal of portions of the stomach or small intestines had the side effect of reducing weight and appetite in their patients. It is out of observations of these unintended consequences that the idea for surgery with the specific purpose of facilitating weight loss was born (Woodward, B., 18).

Although Philip Sandblom of Lund, Sweden reported that Victor Henrickson of Gothenberg, Sweden had performed the first surgery for weight loss prior to 1954 (the exact date is unknown), Arnold Kremen and John Linner working at the University of Minnesota in Minneapolis are credited with the first documented attempt at weight loss surgery on a human (Macgregor). In an article published in the Annals of Surgery in 1954, Kremen and Linner discussed the studies in which they had attempted to understand the nutritional effects of removing parts of the small intestine in animals and concluded that if seventy-five percent or more of the small intestine were removed, weight loss would result. However, it was noted that the weight loss would be accompanied by serious nutritional deficiencies. Kremen and Linner also described the

jejunum-ileal bypass operation that they had performed on a 275-pound woman. During the surgery, they connected the upper part of her small intestine (the jejunum) with the lower part of her small intestine (the ileum) leaving the woman with only twenty-five percent of her functioning small intestine. It was recorded that as a result of the surgery, the patient's weight dropped to 240 pounds (Ackerman, 48).

Kremen and Linner were not the only surgeons from the University of Minnesota working on weight loss surgery at the time. The significant shared interest in weight loss surgery at Minnesota probably grew from a center-wide focus during the mid-1940s in surgery for patients with stomach and duodenal ulcers (Ackerman, 115). In 1954, Edward Mason, John Alden, and Richard Varco, all associated with the University of Minnesota, were pursuing bariatric projects. Edward Mason, who was trained at the University of Minnesota and would come to be known as the father of bariatric surgery and founder of the American Society for Bariatric Surgery (Woodward, B., 18), performed the first of his weight loss procedures at this time. These included a jejunum-colic bypass that removed the entire ileum portion of the small intestine from the digestive tract (Ackerman, 48). John Alden performed animal studies to understand how weight loss could be achieved by altering the gastrointestinal tract (Woodward, E., 26). And, although his results were not published and the patient record was lost, Richard Varco has also been credited with having performed a jejunum-ileal bypass surgery (Macgregor).

### **The Jejunum-Ileal Bypass to the Biliopancreatic Diversion**

In 1956, Dr. Howard Payne started an active program for the treatment of morbidly obese patients through surgery. Payne began with jejunum-colic procedures in which he bypassed all but fifteen inches of the jejunum and half of the colon. Although these surgeries sometimes resulted in major weight loss, the complications, which included diarrhea, severe nutritional problems, and liver failure, were significant enough that this particularly radical type of bariatric surgery was abandoned. However, the significant weight loss that the dramatic surgery was able to produce encouraged surgeons to proceed with their experimentation with the goal of finding a method that would balance the decrease in absorption of calories with an acceptable amount of nutrient absorption (Ackerman, 48-49).

In 1969, Payne published the jejunum-ileal bypass (Woodward, E., 26), which became the favored weight loss operation in the 1960s and 1970s with more than 100,000 of these surgeries performed in the United States during the period (Ackerman, 51). The jejunum-ileal bypass<sup>15</sup> retained portions of the jejunum and the ileum. However, the question of exactly how much of both of these sections should be retained and how much should be bypassed became subject for experiment. There was also a question of whether the functioning part of the jejunum should be attached to the end of the ileum, known as an end-to-end operation, or the side of the ileum, known as an end-to-side operation (50). Opinions on what worked best varied among surgeons.

---

<sup>15</sup> For diagrams of this and other weight loss surgery procedures see Macgregor's "The Story of Surgery for Obesity" (2002) on the website of American Society for Bariatric Surgery, URL: <http://www.asbs.org/html/story/chapter1.html>.

While the jejunio-ileal bypass produced excellent weight loss, it also resulted in frequent complications. These included malabsorption of nutrients, electrolytes, minerals, and vitamins that led to many negative symptoms (hair loss, anemia, liver disease, renal disease, kidney stones, subsequent death, etc.), and, in the case of the end-to-side technique, intestinal reflux. Because bile, which has a critical role in fat digestion, could no longer be reabsorbed in the small intestine, fatty acids built up in the colons of those who received the jejunio-ileal bypass. This led to severe diarrhea, the major patient complaint that characterized the jejunio-ileal bypass in the minds of patients and physicians (Macgregor).

The jejunio-ileal bypass produced weight-loss because of the malabsorption that it caused. However, the severity of the unintended consequences caused by the malabsorption inspired surgeons to come up with bariatric procedures that entailed less risk. The development of gastric bypass techniques would eventually make the jejunio-ileal bypass operation obsolete. In fact, the American Society for Bariatric Surgery currently recommends that patients who still have their jejunio-ileal bypass intact have it taken down or converted to a gastric restrictive procedure (Macgregor).

The successful and accepted biliopancreatic diversion is the modern variant of the jejunio-ileal bypass. Developed by Nicola Scopinaro in 1996 at the University of Genoa, the procedure differs from the jejunio-ileal bypass in that it does not defunctionalize the small intestine. Because of this, liver problems are much less frequent in biliopancreatic diversion patients (Macgregor).

There are two parts to the biliopancreatic diversion: limited gastroectomy to reduce consumption and a rerouting of the intestines (in the construction of a long Roux-en-Y anastomosis) to induce malabsorption of nutrients (Macgregor, Chapter Three). The biliopancreatic diversion procedure is considered a very successful surgery for weight loss and is popular today.

### **Gastric Bypass and the Roux-en-Y Gastric Bypass**

Working at the University of Iowa, Edward Mason made significant contributions to the development of bariatric surgery. His advancements built off the experience that he had with surgery for stomach and duodenal ulcers during his residency training at the University of Minnesota (Ackerman, 115). While Mason was at Minnesota in the 1940s, the Billroth II gastroectomy, developed in the late 1800s by the Viennese surgeon Theodor Billroth, was the favored surgery for peptic ulcer treatment. In the Billroth II, most of the stomach was removed and then the remaining upper portion of the stomach was connected to the jejunum section of the small intestines. Post-operative Billroth II patients lost weight and it became very difficult for them to regain it (Macgregor).

Having completed his surgical training, Mason moved to the University of Iowa and in 1966 he performed his first gastric bypass procedures (Ackerman, 115), applying the gastroectomy concept from the Billroth II to the treatment of morbidly obese women (Macgregor). In 1967, Mason was the first to publish a paper on the concept of gastroplasty, reducing the capacity of the stomach to induce weight loss (Woodward, E.,

26). Mason experimented with two important variables in his gastric bypass surgeries: the size of the stomach, or the severity of the gastroplasty, and the width of the stoma that connected the stomach and intestine. Regardless of the stretching that often occurred in the stomach pouches and stoma of Mason's gastric bypass patients, they lost significant amounts of weight. When Mason was able to demonstrate that his gastric bypass technique did not lead to the production of ulcers, as his critics had feared would occur if bile and gastrin built up in the functioning upper portion of the stomach, gastric bypass surgery grew in popularity (Ackerman, 115-116).

In 1977, John Alden, a surgeon in St. Paul, Minnesota, made a significant contribution to Martin's gastric bypass technique with the idea of partitioning off part of the stomach instead of bypassing it (Woodward, E., 26). While Mason had been completely separating the stomach by cutting it to create the pouch and lower stomach, Alden demonstrated that the same gastroplasty effect could be produced by merely creating a partition. Alden simplified gastric bypass when he developed the practice of implanting two parallel rows of surgical staples (33 total), which had proven tolerable in other types of stomach and intestinal surgeries, across the upper portion of the stomach (Ackerman, 116).

At about the same time as Alden's innovation, many surgeons began to use the Roux-en-Y method of attaching the intestines during gastric bypass. This adaptation to the surgery was made to avoid inflammation caused by the bile reflux that occurred when bile moved from the intestine to the stomach in the traditional gastric bypass method that had connected the stomach to a loop of intestine. The Roux-en-Y technique, named after the Swiss surgeon César Roux, connects the stomach to the jejunum and then attaches the portion of the intestine that is attached to the unused section of the stomach further down the jejunum in a jejuno-jejunostomy (Ackerman, 116-117).

Further modifications of Mason's gastric bypass technique included variations the size of the stomach pouch, in the width of the stoma, in the length of the Roux limb, and stapling techniques (and later banding) to improve weight loss and to ease the complications of the procedure (Macgregor).

### **Horizontal Gastroplasty to Vertical Banded Gastroplasty**

After having developed gastric bypass techniques, Mason turned his attention to fine-tuning gastroplasty. Gastroplasty is commonly known as "stomach stapling." Stapling techniques and instruments were invented by the Russians as simple and quick methods for dealing with injuries to body tissues during World War II (Macgregor). The concept of stapling and surgical stapling devices were further developed after the war and since Alden's original application in 1977 have become standard technologies of bariatric surgery.

Early uses of stapling in weight loss surgery occurred in a procedure called horizontal gastroplasty. The operation involved creating a staple line across the top of the stomach with a gap of only three staple spaces. Ideally, food would be held up in the top portion of the stomach causing a sense of fullness and a reduction of intake. Food

would then proceed very slowly through the stoma, the gap in the staples, to the remainder of the stomach and the intestines where normal digestion would occur.

While patients that received horizontal gastroplasty lost weight in their first few post-operative months, their muscular stomachs would eventually stretch. This would increase the size of the stoma and decrease the effects of the surgery (Macgregor). Mason tackled these problems, making several important modifications, in the early 1980s. In doing so, he developed the techniques of Vertical Banded Gastroplasty. Mason first published on Vertical Banded Gastroplasty in 1982 (Spotlight Health).

Instead of the traditional horizontal pouch, Mason realized that a vertical pouch created by stapling the thickest parts of the stomach where curvature is least would best limit stretching. He experimented and found that a very small pouch, holding only 14 ccs of saline at the time of operation, produced the best weight loss results. Additionally, Mason was able to fix the stoma by placing a polypropylene band around the lower end of the vertical pouch and creating an unstretchable outlet (Macgregor).

Vertical Banded Gastroplasty produced good weight loss and, because food was still digested normally, it avoided the side effects that accompany malabsorptive bariatric procedures. However, weight regain with Vertical Banded Gastroplasty is recognized as a significant late complication (Macgregor).

### **Gastric Banding**

Bariatric surgeons in Europe and Scandanavia began to explore the idea of implanting a restrictive device to reduce the size of the stomach in the early 1990s (Spotlight Health). Gastric banding, which creates an hour glass effect by placing a constricting ring around the top end of the stomach avoids the traumatic and invasive techniques of cutting and stapling that are involved with other bariatric procedures (Macgregor).

The popularity and success of gastric banding procedures increased with the development of modern band technologies designed specifically for the task. These bands enable surgeons to measure the stoma that they create. And, they withstand the pressures of their position. The most useful innovations in gastric band technologies have been the invention of the inflatable band by Kuzmak in 1990 and the development of models that can be laparoscopically applied (Macgregor).

## **Weight Loss Surgeries Today**

Several types of weight loss surgeries are used today. These surgeries fall into two categories: restrictive and malabsorptive. According to the American Society for Bariatric Surgery, the most frequent restrictive surgeries currently performed are vertical banded gastroplasty and various gastric banding procedures. Together these “simple” operations made up 21% of the weight loss surgeries performed in 2000 (SAGES/ASBS). The most popular malabsorptive procedures include the Roux-en-Y gastric bypass and variations of the biliopancreatic diversion. “Complex” operations like these made up 79% of the weight loss surgeries performed in 2000 (SAGES/ASBS).

Both types of bariatric surgery were endorsed by the NIH in their 1991 Consensus statement, “Gastrointestinal Surgery for Severe Obesity,”<sup>16</sup> the result of the Consensus Development Conference of the same name. The NIH Consensus Development Conference on Gastrointestinal Surgery for Severe Obesity of 1991 followed up on the similarly focused NIH consensus Conferences of 1978 and 1985. The 1991 conference gathered numerous experts and representatives of the public (though it is unclear who these representatives of the public were – whether or not they were morbidly obese, whether they were male or female, and whether or not they were in support of fat acceptance) to discuss: the nonsurgical treatment options for severe obesity, the surgical treatments for severe obesity and the criteria for selection, the efficacy and risks of surgical treatments for severe obesity, and the need for future research on and epidemiological evaluation of these therapies.

In addition to endorsing the Roux-en-Y gastric bypass and biliopancreatic diversion weight loss surgery procedures, the consensus panel recommended that:

- patients seeking therapy for severe obesity for the first time should be considered for treatment in a nonsurgical program with integrated components of a dietary regimen, appropriate exercise, and behavioral modification and support,
- gastric restrictive or bypass procedures could be considered for well-informed and motivated patients with acceptable operative risks,
- patients who are candidates for surgical procedures should be selected carefully after evaluation by a multidisciplinary team with medical, surgical, psychiatric, and nutritional expertise,
- the operation be performed by a surgeon substantially experienced with the appropriate procedures and working in a clinical setting with adequate support for all aspects of management and assessment, and
- lifelong medical surveillance after surgical therapy is a necessity (NIH Consensus Statement).

The most interesting section of the consensus statement discusses future directions for work involving weight loss surgery. The consensus panel recognized both the importance of evaluating risk in rationalizing the surgery and the actual difficulty of determining risk. They call for the development of centers and studies to research well-defined groups of subjects and develop standardized protocols. It is particularly interesting that the NIH consensus group calls for study of the effects of surgical therapy in subgroups defined by gender, race, socioeconomic status, comorbidity, and fat distribution. This recognition of both social and physiological factors that may affect the results of weight loss surgery is significant. In particular, this mentioning of social factors is interesting because these categories are made invisible with the use of BMI to

---

<sup>16</sup> The NIH Consensus Development Conference Statement, “Gastrointestinal Surgery for Severe Obesity,” from March 25-27, 1991 was fundamental for legitimizing the practice of weight loss surgery and encouraging further developments. It is available in the appendix of this thesis and online ([http://consensus.nih.gov/cons/084/084\\_statement.htm](http://consensus.nih.gov/cons/084/084_statement.htm)) and was originally published as Gastrointestinal Surgery for Severe Obesity. NIH Consensus Statement 1991 Mar 25-27; 9(1): 1-20.

determine obesity, in current perspectives on weight loss surgery provided by the American Society for Bariatric Surgery, and in the guidebooks created for the popular press. Although I have not found evidence that the effect of social factors on weight loss surgery has been researched since the 1991 proposal, I think that the very question of why this has not been done will be important to my own future research and analysis of weight loss surgery.

### **Popular Restrictive Weight Loss Surgeries (Gastroplasty)**

Restrictive procedures are the less severe of weight loss surgeries because they do not reroute the digestive tract. These operations promote weight loss by dramatically limiting food intake through the process of gastroplasty. After the surgery, gastroplasty patients can only eat 3/4 to one cup of food before feeling discomfort (United States National Institute of Diabetes & Digestive & Kidney Diseases of the National Institutes of Health).

In gastroplasty, a pouch is created in the area where the esophagus meets the stomach. This thumb-sized pouch reduces the capacity of the stomach, which is normally the size of two fists and can hold from one and a half to four quarts of food, to only one ounce (Boasten, 48). Although the pouch will stretch over time to accommodate two to three ounces, the intake of food remains severely restricted. In addition to limiting the volume of possible intake, the lower outlet of the constructed pouch is made to have a diameter of 3/4 inches. The narrowing of this passage causes a feeling of fullness by delaying the emptying of the pouch (United States National Institute of Diabetes & Digestive & Kidney Diseases of the National Institutes of Health).

#### Vertical Banded Gastroplasty

The most common restrictive weight loss operation has been vertical banded gastroplasty<sup>17</sup>. A band and staples are used to create the small pouch and narrow the food outlet passage in this procedure.

#### Adjustable Gastric Banding

As indicated by the name of the procedure, the band used in adjustable gastric banding can be manipulated to control the size of the stomach pouch and its outlet. This hollow band is tightened or loosened over time by increasing or decreasing the salt solution in its chamber.

Restrictive bariatric surgeries, like vertical banded gastroplasty and adjustable gastric banding, do lead to weight loss. However, these surgeries are less effective than malabsorptive procedures in enabling patients to achieve and maintain long-term goals. The success of vertical banded gastroplasty and adjustable gastric banding depends on patient compliance to a long-term plan for healthy eating and exercise. Patients who are

---

<sup>17</sup> For diagrams of this and other weight loss surgeries used today see the United States National Institute of Diabetes & Digestive & Kidney Diseases of the National Institutes of Health “Your Digestive System and How It Works”, URL: <http://www.niddk.nih.gov/health/digest/pubs/digesyst/newdiges.htm>.

unwilling to make such necessary adjustments do not reach or maintain their weight-loss goals. Of those who undergo vertical banded gastroplasty, about eighty percent achieve some degree of weight loss and thirty percent reach what would be considered their normal weight (United States National Institute of Diabetes & Digestive & Kidney Diseases of the National Institutes of Health).

Vomiting, which results when the stomach pouch is overly stretched by food that hasn't been chewed well enough, is the most common risk of these restrictive operations. Additional risks are associated with the band and staples implanted in the surgeries. After vertical banded gastroplasty, the band may wear away or the staple line may break. Band slippage and leakage may occur after adjustable gastric banding. In the rare occurrence, stomach juices may leak into the abdomen, presenting the need for emergency reparative surgery. Infection or death from complications results in less than one percent of all gastric banding cases (United States National Institute of Diabetes & Digestive & Kidney Diseases of the National Institutes of Health).

### **Popular Malabsorptive Weight Loss Surgeries (Bypass)**

Malabsorptive bariatric procedures, the most popular of weight loss operations, combine the gastroplasty of restrictive surgeries with a shortening of the functioning digestive tract. These operations both restrict food intake and limit the amount of food that can be absorbed. Malabsorptive surgeries are considered more successful than restrictive surgeries because they tend to produce more weight loss and seem to be more effective in reversing the health problems and co-morbidities associated with morbid obesity (United States National Institute of Diabetes & Digestive & Kidney Diseases of the National Institutes of Health).

#### Roux-en-Y Gastric Bypass

The Roux-en-Y gastric bypass is the most common and most successful malabsorptive surgery (United States National Institute of Diabetes & Digestive & Kidney Diseases of the National Institutes of Health). In the Roux-en-Y procedure, a staple line is placed on a diagonal angle across the stomach area that is closest to the esophagus. This gastroplasty creates a one to two ounce pouch (Boasten, 48). The pouch is different than that created in vertical banded gastroplasty and adjustable gastric banding because there is no food outlet from the pouch to the remainder of the stomach. Instead, a hole is cut in the pouch to create a new food outlet.

During the bypass portion of the Roux-en-Y gastric bypass, a full cut is made in the jejunum section of the small intestines. The end of the jejunal portion of the intestine is then connected to the new food outlet in the stomach. Another hole is cut further down the jejunum and the duodenal portion of the intestine is connected (Boasten, 52). This "Y-shaped" reconfiguration of the stomach and small intestine allows food to bypass the duodenum and a portion of the jejunum. However, all parts of the intestine and stomach remain in the body.

#### Biliopancreatic Diversion and Duodenal Switch

Biliopancreatic diversion is more complicated than the Roux-en-Y gastric bypass malabsorptive procedure because large portions of the stomach are actually removed

from the patient. In the biliopancreatic diversion, the small stomach pouch that remains is connected directly to the ileum, the last section of the small intestine. This radical bypass of the duodenum and the jejunum produces weight loss but, because of problems with resultant nutritional deficiencies, it is used less often than the Roux-en-Y gastric bypass (United States National Institute of Diabetes & Digestive & Kidney Diseases of the National Institutes of Health).

The duodenal switch is a less severe variant of the biliopancreatic diversion. In this procedure, the stomach pouch is made to hold six to eight ounces and the normal food outlet is used. The intestine is severed at the base of the stomach and the duodenal end is closed off. Another full cut is made in the jejunum portion of the small intestine. The jejuno-ileal portion is then connected to the stomach. The open end of the duodenal-jejunal portion is connected to a hole that is created in the ileum (Boasten, 49-52).

Malabsorptive surgeries like the Roux-en-Y gastric bypass, the biliopancreatic diversion, and the duodenal switch may be considered more effective than restrictive procedures in producing weight loss, with patients generally losing two thirds of their excess weight within two years of the surgery, but malabsorptive surgeries also entail greater risk (United States National Institute of Diabetes & Digestive & Kidney Diseases of the National Institutes of Health). The general rule is the more extensive the bypass, the greater the risk of complications from surgery. In addition to risks associated with restrictive weight loss procedures, malabsorptive surgeries produce risk of nutritional deficiency and “dumping syndrome.”

The bypassing of the duodenum and jejunum in malabsorptive operations eliminates the area in which most iron and calcium are absorbed into the body. This produces risks of nutritional deficiencies that include: anemia (iron), osteoporosis (calcium), and metabolic bone disease (calcium). Patients who undergo malabsorptive procedures must take supplements (iron, calcium, and vitamins A, D, E, and K) in attempt to prevent nutritional deficiencies. The Roux-en-Y gastric bypass and the biliopancreatic diversion can also cause “dumping syndrome.” This happens when post-operative patients experience the symptoms of nausea, weakness, sweating, fainting, and diarrhea after eating when stomach contents move through their small intestines too rapidly. Patients with malabsorptive weight loss surgeries require close and continuous medical surveillance and life-long use of special foods, nutritional supplements and medications. (United States National Institute of Diabetes & Digestive & Kidney Diseases of the National Institutes of Health).

### **Laparoscopic Weight Loss Surgery**

Laparoscopic techniques have been used in weight loss surgery since 1993. Surgeons utilize videoscopic instruments to perform minimally invasive bariatric procedures. While not all patients are eligible for laparoscopic surgery, virtually all bariatric operations can be performed with these techniques if the surgeon has received proper training. Patients who undergo laparoscopic surgery usually have shorter recoveries than those who have open procedures. Additionally, wound-related risks

including that for wound infections and hernias are reduced with the minimally invasive version of bariatric procedures (SAGES/ASBS).

## **Risks and Rewards of Weight Loss Surgery**

The medical justification for using surgery to treat morbid obesity is that the risk of living morbidly obese outweighs the risks of the surgery and post-operative complications. I have given brief listings of the risks associated with the specific weight loss surgeries that are popular today. In this section, I will speak generally about the risk-benefit analysis of weight loss surgery. Here it is important to remember the context of the American obesity epidemic. Obesity is perceived to be a disease run out of control – and a very expensive one at that.

### **Co-morbidities of Morbid Obesity**

As I discussed in the introduction to this project, medical literature reports that obesity-related morbidities increase with BMI. According to the medical perspective, obesity-related medical problems decrease the life expectancy of the morbidly obese individual. The list of the most common of these co-morbidities includes type-2 diabetes. Diabetes occurs when obese individuals develop a resistance to the insulin that normally regulates their blood sugar. The chance of high blood pressure (hypertension) and heart disease increases with body weight and strain on the heart. Excessive body weight also puts pressure and added wear and tear on joints like the knees, hips, and back. Osteoarthritis, pain, and decreased mobility may result (Ethicon Endo-Surgery).

Obese individuals are at an increased risk for sleep apnea and other respiratory problems as the fat deposits in their respiratory tract can cause intermittent obstruction of their air passage and breathing (Ethicon Endo-Surgery). Obese individuals experience increased risk for heart burn (gastroesophageal reflux), urinary stress incontinence, gallbladder disease, and high cholesterol levels – a risk factor connected with higher incidence of cardiovascular disease. Obese women have a higher chance of irregular menstruation and infertility. They have an elevated risk of uterine, gallbladder, cervical, ovarian, and breast cancers. Men have an increased risk of colon, rectal, and prostate cancers (Goodman).

Obese people face challenges in American culture that include everything from the disapproval from loved ones to sneers from strangers, from discrimination to the inability to ride on planes and other transportation. These social experiences in combination with feelings of failure that come with numerous unsuccessful attempts at dieting make obese individuals prone to depression (Ethicon Endo-Surgery). In addition to depression, many severely obese people experience difficulty with daily activities and need to rely on others for assistance with care, transportation, and hygiene (Goodman).

Although I am not a medical professional, it seems to me that the risk of developing every major medical problem increases with body weight. So does the

chance of being treated like a deviant body<sup>18</sup> by society. There is no known definitive cause for overweight and obesity, although it is thought to result from a combination of genetic, behavioral, and environmental factors. The general concept is that the energy the obese individual consumes is greater than that which he or she expends. Traditional weight loss treatments work with this equation and try to limit caloric intake through dietary control while increasing energy expenditures through exercise regimes. Often drugs that include the likes of Redux and Meridia<sup>19</sup> are added to the weight loss treatment plan. Unfortunately, these treatments alone and in combination do not work for severely obese individuals. They are difficult to sustain for the time necessary to lose and maintain a loss of more than one hundred pounds. Traditional weight loss treatments have long-term failure rates of above ninety percent with the morbidly obese (Goodman).

### **Eliminating and Reducing Co-morbidities through Weight Loss Surgery**

In light of this situation, weight loss surgery is currently considered the most effective treatment for obesity. It is almost impossible for patients not to lose weight with it. Actual weight loss depends on the patient's age, her weight before surgery, the overall condition of the patient's health, the type of surgical procedure that she undergoes, the patient's ability to exercise, her commitment to dietary guidelines and other aspects of follow-up care, the patient's motivation, and the level of support that she receives from friends, family, and associates (Ethicon Endo-surgery). Varying with these factors, patients lose between 40% and 75% of their excess body weight after surgery. Surgery is considered a success if at five years post-op at least 50% of the patient's excessive body weight has not been regained. Accordingly, the Roux-en-Y gastric bypass procedure, considered the gold standard of weight loss surgery, has an estimated success rate of 70% (Choban et al., 898).

While the weight reduction following bariatric surgery is impressive, the reduction in obesity-related medical problems is equally so. 80% of the cases of type-2 diabetes are cured with post-operative weight loss (Columbia). Hypertension is dramatically improved such that close to 50% of patients become normotensive after surgery. Patients are able to reduce or discontinue use of blood pressure medications as a result (Choban et al., 898). 75% of the cases of sleep apnea among bariatric surgery patients are cured with weight loss. An equal percentage of patients with general respiratory problems see improvement (Columbia).

Though pregnancy is dangerous in the first two years after surgery because of nutrition issues, weight loss can significantly increase the chances of pregnancy, reversing infertility in women (Columbia). In addition, heartburn, urinary continence, back and joint pain, and venous problems of the leg tend to improve dramatically with

---

<sup>18</sup> See Deviant Bodies (1995) edited by Jennifer Terry and Jacqueline Urla.

<sup>19</sup> Redux is the trade name for dexfenfluramine which was approved by the FDA in 1996 and prescribed as a diet pill until 1997 after it was linked to heart disease ([http://www.diet-i.com/diet\\_pills/weight-loss-pills.htm](http://www.diet-i.com/diet_pills/weight-loss-pills.htm)). Meridia is the trade name for sibutramine is the newest weight loss drug that is currently being prescribed. Eight and a half million people have taken Meridia since 1997, when it was approved by the FDA (<http://4meridia.com/>).

post-operative weight loss. The risk of premature death is lowered with successful weight loss surgery (Choban et al., 898).

Quality of life is improved with weight loss from bariatric surgery. Because joint pain, respiratory problems, and size limitations are decreased, patients find themselves able to participate in activities that had previously been excluded to them. Along with an increase in physical activity comes an increase in sexual interest and an increased self-perception of health (Choban et al., 898). Though the social effects of successful weight loss surgery are seldom mentioned in comparison to discussion of medical benefits in the medical literature, I believe that social effects play an important role in a patient's calculation and acceptance of surgical risk. I will discuss this in Chapter Three as I problematize the distinction between medical and cosmetic classification in the case of bariatric surgery.

### **Post-Surgical Risks and Problems**

The weight loss and reduction of obesity-related morbidities after surgery are significant. But it is important to recognize that patients are exposed to new risks during surgery and post-operative life. Weight loss surgery is not an easy way out of obesity. The procedures carry the pain and risk of any major abdominal operation. In addition, there are risks of being operated on while being affected by some of the co-morbidities of obesity. Although the number varies between post-operative weight loss surgery patient communities with a positive outlook toward surgery and those who consider themselves survivors, there is a reported 1% chance of death due to surgical, cardiovascular, or pulmonary complications during weight loss surgery (Goodman).

There are several common problems associated with weight loss surgery. 3% of patients experience leaks from the staples used in their procedures and three percent experience blood clots in the legs or lungs. Between 15% and 20% of incisions get infected, and 10% to 20% of patients experience hernias which require surgical treatment to repair (Goodman). Another common complication, experienced in 15% of cases, happens when scar tissue forms in the connection between the pouch and small intestine of gastric bypass patients. While this narrowing results in chronic vomiting, it is successfully treated 90% of the time with endoscopy, an outpatient procedure that stretches the opening (Columbia).

Other medical problems that result from weight loss surgery include operative bleeding that is controlled with removal of the spleen. This occurs in 3 out of 1,000 (Ethicon Endo-Surgery). If gallstones are present at the time of surgery, a patient's gallbladder is removed. This is done in order to prevent further complications, as rapid post-operative weight loss is associated with a thirty percent chance of forming gallstones (Columbia). Between 10% and 20% of patients require follow-up surgery for complications such as obstruction caused by adhesions from scar tissue, a very serious condition (Goodman).

Weight loss surgery necessitates lifestyle changes. One of the most significant of these changes is in post-surgical diet. In order to have successful weight loss, you must adhere strictly to the guidelines provided by your bariatric surgeon. The post-surgery diet

normally progresses from clear liquids to solid foods over three to six weeks. Because weight loss surgery works by limiting consumption and reducing the absorption of nutrients, it is very important that food be high in protein (Boasten, 142). Although specific guidelines differ by surgeon and type of procedure, they commonly include:

- ❑ chewing solid food thoroughly,
- ❑ not drinking fluids while eating so that you don't make yourself feel full before you have consumed enough food,
- ❑ omitting desserts and other high sugar items,
- ❑ avoiding alcohol,
- ❑ and limiting snacking between meals (Ethicon Endo-Surgery).

In addition to food restrictions, post-operative patients must be continuously monitored for serious vitamin and nutritional deficiencies that can result from malabsorptive bariatric procedures. Such deficiencies occur because bypass procedures do not allow for normal absorption of iron, B-12, and calcium. These nutrients are essential and deficiency in them can lead to many problems that include anemia (iron), osteoporosis (calcium), and neurological problems (B-12) (Columbia). In an attempt to prevent these problems, post-operative individuals take daily vitamin and mineral supplements.

Rapid weight loss after bariatric surgery results in the release of estrogen from fat cells. This free-flowing estrogen causes hair loss, contraceptive failure, nausea, mood swings, and menstrual irregularities. Birth control is very important in the months following weight loss surgery because nutritional deficiencies may result in fetal damage. Patients are encouraged to delay pregnancy for at least eighteen months after surgery (Boasten, 146). Several other changes occur in the post-operative body. Post-operative individuals may experience halitosis (bad breath), bowel changes, and climate sensitivity (feeling cold). If the patient eats the wrong foods, she may experience emesis (vomiting) or dumping syndrome.

It is not clear how dumping syndrome should be classified with respect to complications of weight loss surgery. After surgery, patients are directed to follow a strict low-calorie diet of between 400 and 600 calories per day. If post-operative individuals overeat, or, if they consume sweets or high-calorie drinks, they become violently ill with what has been named "dumping syndrome." Patients claim that the intense nausea, weakness, sweating, faintness, and diarrhea that they experience with dumping syndrome is so terrible that they will do anything to avoid it (Goodman, online). Though the physical experience of dumping can be seen as a side effect of weight loss surgery, it could be considered a built-in insurance policy for the success of the surgery rather than a complication. With patients doing everything that they can to avoid dumping, they are doing what they can to obey the post-operative dietary guidelines.

A patient's ability to resume pre-surgery levels of activity is dependent on her physical condition, extent of complications, the nature of the activity, and the type of bariatric procedure that she had. Many patients are able to return to pre-surgery levels of

activity within six weeks. Of course, patients who undergo laparoscopic procedures may return to activities even sooner (Ethicon Endo-Surgery).

With an understanding of the history and workings of weight loss surgery technologies along with the risks and lifestyle changes that they entail, I think it is important to understand weight loss surgery culture. Who is the average patient of bariatric surgery? What is life like before and after the operation? I address these issues and more in the following chapter. I look at weight loss surgery culture, including media representations of the procedures, and I problematize the distinction in classification between cosmetic and medically necessitated surgery.

## Chapter Three

# Weight Loss Surgery Culture

Carnie Wilson made the cover of *People* magazine for the week of January 15, 2001. The thin post-operative Wilson is pictured in a giant pair of jeans that represents the size of her clothing before surgery. Wilson's mouth is open and smiling and her hand is extended to hold out the waist of the pants in order to demonstrate the amount of weight she has lost. Wilson's hair is long and tucked away from her face. Her red, tight, and low cut top matches her red finger nails and lipstick. This image of a shrunken post-operative Wilson is contrasted with the photo on the inset of Wilson in 1997. The inset photo shows a fat Wilson from the waist up. Thick brown hair covers part of her face and a conservatively cut floral dress loosely drapes her large body. She smiles softly. In large bold red letters the cover caption reads, "HALF HER SIZE!" Then, in slightly smaller black lettering, "Seventeen months after stomach-reducing surgery, singer Carnie Wilson has dropped 150 lbs. And 20 dress sizes. 'I can't believe it's me in this thin body!'"

I picked up this copy of *People* from a grocery aisle rack in 2001. It provided the spark of inspiration for my thesis project and began my collection of representations of weight loss surgery in the media. Without even turning to the article, the cover image of Wilson already works to blur the distinction between weight loss surgery and cosmetic surgery. The post-operative half-sized Wilson is sexualized in her red tight clothing and makeup. Her mouth is open in awe of her "tiny body." While the attractiveness and smallness of post-operative Wilson is highlighted in the photo, there is no mention of the medical element or benefits of her surgery.

In this chapter I look at the culture of weight loss surgery. I analyze images of weight loss surgery in the media for insight into the popular understanding of the procedures. I examine the process women go through leading up to their surgery, the criteria that they must meet to qualify for the surgery, and how they finance the endeavor. I argue that weight loss surgery must be understood, at least in part, as cosmetic surgery.

### Images of Weight Loss Surgery in the Media

Two years ago, when I started this project, anyone who browsed through a grocery-aisle magazine had probably heard of weight loss surgery. Carnie Wilson, of musical group Wilson Phillips fame, was all over the place – giving her emotionally charged testimonial about how weight loss surgery changed and saved her life. Wilson rationalized, she had "no other option" but to undergo a Roux-en-Y gastric bypass procedure (Dam and Wohlberg, 87).

The publicity Wilson received was not by chance. In fact, she became a spokeswoman for weight loss surgery in 1999 through a company called Spotlight Health. It is important to realize that Spotlight Health has commercial interests that

include pharmaceutical companies, medical technology suppliers, and health care organizations. According to their website, the company is dedicated to using stories of celebrity health challenges “to deliver the most effective awareness programs that empower and encourage consumers to make informed health care decisions.” Spotlight Health uses the “magnetic attraction of celebrities’ intimate personal health stories to generate strong interest, promote enhanced awareness, and motivate positive behavioral change” (Spotlight Health).

Carnie Wilson’s actual gastric bypass surgery was broadcast live over the Spotlight Health website – located at [www.spotlighthealth.com](http://www.spotlighthealth.com). Video clips of the surgery and reports on her personal thoughts about weight loss surgery are currently available as a supplement to Wilson’s story. Wilson has given numerous interviews, published a book, Gut Feelings: From Fear and Despair to Health and Hope (2001), and has traveled a national lecture circuit speaking about her experiences with weight loss surgery. More than three years after her surgery, Wilson continues to post updates on the website about her post-operative, post-obese life.

The celebrity role in promoting weight loss surgery is remarkable – with many of our fat celebrities using it to achieve dramatic results. Ann Wilson, of the musical group Heart, recently joined Carnie Wilson as one of Spotlight Health’s weight loss surgery spokeswomen. Additionally, the list of celebrities who have lost weight through bariatric surgery includes actress Roseanne, John Popper from the musical group Blues Traveler, our favorite weatherman Al Roker, and most recently, Michael Genadry, who was 473 pounds before surgery and who worked his procedure into the script of the popular NBC show “Ed” (Donahue, 9).

The celebrity phenomenon forms an important part of the context in which women decide to pursue bariatric procedures for themselves. A magazine cover picture of celebrity weight loss and the emotionally charged article that accompanies it is likely to be a morbidly obese woman’s first exposure to the idea of surgical treatment for obesity. Indeed, the idea of weight loss surgery as a possibility does not necessarily happen in a doctor’s office. Instead, it may happen at the magazine rack on the end of the check-out aisle at the grocery store. It may happen while watching an afternoon talk show, or a health program, or even a special on celebrity weight loss on the television. It may happen while searching for information on weight loss in the bookstore or on the Internet. As with Carnie Wilson’s relationship with Spotlight Health, commercial interests help determine representations of weight loss surgery in the media. Bariatric specialists, hospitals, and medical supply companies make money with every weight loss surgery performed. Magazine companies make money with every issue that sells. For them, it doesn’t even matter if the reader pursues surgery. It only matters that the reader’s desire to lose weight or to know about the latest obesity cure attracts them to the publication.

Whether it is celebrity spokespeople or Internet presence, the number of surgeries performed each year has increased dramatically, almost tripling in the last five years. The Society for American Bariatric Surgery reported 63,100 obesity-reducing surgeries

performed in the United States during 2002. This number was up from 23,100 cases in 1997 (Radford).

In the U.S., women outnumber men 3:1 as consumers of weight loss surgery. This disproportionality recognizes a high percentage of men who get the surgery considering that eighty percent of morbidly obese individuals are women (American Society for Bariatric Surgery). Still, according to the American Society for Bariatric Surgery, the average weight loss surgery patient is a woman in her late 30s who weighs 300 pounds (Guthrie). While it is important to ask why more women than men are morbidly obese, I will not do so in this project. Instead, I will accept these statistics and examine the ways in which representations of weight loss surgery in the media specifically target women.

One of the ways in which women are targeted for weight loss surgery occurs through representations of the surgery in popular literature. As I explore in the following section, these representations often make weight loss surgery appear as more a cosmetic than medical procedure.

### **Representations of Weight Loss Surgery in *People Magazine***

While there are many images of weight loss surgery in popular media today, due to the space and time constraints of this project, I only examine two of these representations in detail. I would like to pursue further analysis in this area in future work. Both of the representations of weight loss surgery that I have chosen come from issues of *People* magazine. The first, “Weigh to Go!”, is a story about the success of Carnie Wilson’s surgery. The article is from January 15, 2001 issue of *People*, the cover of which I described in the opening of this chapter. The second article looks at negative outcomes from weight loss surgery. It is from the March 10, 2003 issue of *People* and is entitled “Weighing the Risks.”

“Weigh to Go!,” the article about Carnie Wilson written by Julie K.L. Dam and Ulrica Wihlborg, opens with a photo that spans one and a half pages. Wilson is pictured leaning up against a bathtub. She is dressed in a violet satin robe with delicate lace details. She is moderately made up and is smiling. The curls of her hair fall onto her exposed cleavage. Her left hand is placed at the slit of her robe, on her mid thigh. Wilson’s wedding ring stands out as the focus of the sexually charged photo. The subtitle reads: “After shedding 150 pounds via stomach surgery, Carnie Wilson rejoices in the lighter side of life.” Again, this photo and caption focus on Wilson’s new appearance and the cosmetic improvements that she has benefited from as a result of weight loss surgery.

There are many other photos included in the six-page spread: Wilson’s recent wedding picture; casual photos of Wilson interacting with her husband, sister, and father; a photo of Wilson as a heavy child; and a photo of the fat Wilson with the two other members (both very thin) of the failed musical group Wilson Phillips. In general the pictures depict Wilson as happy and successful socially and professionally at her new size.

The text of the article does briefly mention the drastic nature of weight loss surgery and that Wilson risked serious side effects. However, the focus is on the non-medical improvements that weight loss, by means of the surgery, has brought to her life. This is illustrated in the following passage.

Wilson is herself overwhelmed by the new joy she finds in the most ordinary activities. A trip to the mall, once as appealing as a visit to the dentist, has become a favorite pastime. There was a time when simply walking from the parking lot left her gasping for breath; now she flits effortlessly from store to store. And she's loving every moment: Anyone standing outside the fitting room at the Sherman Oaks, Calif., Bloomingdale's one day recently might have been puzzled by the hoots and hollers coming from within. Shaking her hips in a stretch denim skirt, an ecstatic Wilson kept checking the label to reassure herself that she was wearing a size 6, not a 26. "You want to know why I'm screaming?" she asked a saleswoman. "Because this is what I looked like a year ago." She reached into her purse and pulled out a picture of herself at her heaviest. The woman just stared, Wilson gleefully recalls. "She said, 'I don't believe it. I just can't believe this is you.'"

Sometimes neither can Wilson. As dramatic as the physical transformation has been, the emotional change has been even greater. "It's a major sense of freedom," says Wilson, who now wears between a size 6 and a size 10. "I walk by a window and see my reflection and I can't believe it's me in that tiny body. I just start smiling. People think I'm nuts because I'm always smiling out of nowhere. They're like, 'What's so funny about seeing your own reflection?' and I'm thinking, 'You just don't understand'" (Dam and Wihlborg, 88).

Wilson is excited with her thin body. She briefly mentions that she gasped for breath in her fat body but focuses on the delight of shopping for and wearing a small size. Wilson also recognizes the emotional change that came with her weight loss and the freedom that she has found from the social burdens of being obese.

Beyond the passage above, "Weigh to Go!" describes Wilson's previous overeating and lack of control with her diet. It goes over her history with musical group Wilson Phillips and the struggles that Wilson had performing for music videos as a fat woman. The article gives a brief overview of Wilson's surgery. It discusses Wilson's wedding and other life changes she has experienced post-surgery. Wilson considers her weight loss a new beginning.

The representation of weight loss surgery in "Weigh to Go!" focuses much more on the successful and beautiful life of a thin person – and her shopping trips - than on the medical necessity of weight loss surgery. The message seems to be that weight loss surgery is a drastic method by which to lose large amounts of weight in order to become beautiful, sexy, and socially acceptable. Weight loss surgery is represented as a

transformative technology – life is not the same for the post-operative individual. For Wilson, weight loss surgery is liberating. In the time since Wilson had gastric bypass surgery, she lost 150 pounds, got married, revived her career and found happiness – is this health? The line between cosmetic and medical benefit in the text is blurred along with the distinction between beauty and health. However, the photos clearly tell the story of weight loss surgery for cosmetic transformation.

The recent article, “Weighing the Risks” written by Allison Adato and Galina Espinoza and published in *People* magazine, did not make the rank of cover story – perhaps, because it focuses on the complications of surgery for obesity, a message that may not be popular on grocery store aisles. The short text of the article connects the dramatic before and after pictures from weight loss surgery, specifically referencing those of Carnie Wilson and Al Roker, with the serious risks that the bariatric operations entail. The authors recognize the death rate from weight loss surgery to be as high as 7% percent for those with complications from their obesity (Adato and Espinoza, 138). And they repeat the rationale for surgery: by opting for surgery, obese individuals take an immediate risk with the hope of improving long-term survival. The main text of the article is supplemented with four profiles of women who have had severe complications from their weight loss surgery.

The profiles of these females, whom we might consider “weight loss surgery survivors,” include pictures of new, thin bodies. However, the accompanying texts tell stories of pain and regret. All four of the women featured in the article report non-medical motivations for their weight loss surgeries. Laura Lee Turner, who went from 243 to 98 pounds with the surgery, wanted to be thin and do more things with her children. Jesyca Murphy, who lost 112 pounds, wanted to be thin and not be harassed by strangers for her size. Lisa Ross, who lost 130 pounds, wanted to lose weight so that she would look good for her wedding. And, Kaye Parsley, who lost 100 pounds, wanted to be thin for her fortieth birthday. Each of these women had what I would consider cosmetic intentions for pursuing surgery – they wanted to be thin in order to look better. Each of them experienced severe complications. Laura Lee Turner had three follow-up surgeries and needed a feeding tube to deal with bleeding ulcers and a hole in her stomach. Jesyca Murphy had her arm amputated after a series of post-surgery infections resulted in gangrene. Lisa Ross got osteoporosis and became infertile because of nutrient deficiencies. And, Kaye Parsley was given a twenty percent chance of survival after four follow-up surgeries attempted to repair her leaking intestines.

“Weighing the Risks” reveals the danger that comes with blurring the line between cosmetic surgery and weight loss surgery, The article acknowledges a popular perception of the use of weight loss surgery for cosmetic benefit – this is a perception bolstered by the cover of *People* that first attracted me to the surgery. In doing so, the article uncovers the dissonance between the medical community’s insistence that weight loss surgery is not a cosmetic operation and the reality of the motivating factors claimed by the featured women. “Weighing the Risks” illustrates the danger of this dissonance with examples of the possible complications that have occurred to the shock of the post-operative weight loss surgery patient. The article is an exposé of the medical community’s failure to manage obesity reducing surgery in such a way that patients

understand and accept the rationale for surgery. It illustrates what can happen when the distinctive boundary between weight loss surgery and cosmetic surgery fails.

## **Obtaining Weight Loss Surgery**

Whether a woman is motivated to get weight loss surgery by cosmetic or medical reasons or both, how does she go about pursuing the surgery? In the following section I continue with the analysis of weight loss culture by examining the steps that a woman must take and the qualifications that she must meet in order to obtain weight loss surgery.

### **Guidebooks**

My research for this section draws from a popular “how to” guidebook for weight loss surgery, Weight Loss Surgery: Understanding and Overcoming Morbid Obesity (2001). Michelle Boasten wrote this book after she experienced weight loss surgery. Her touchy-feely inspirational guide even includes a prayer for the person struggling with morbid obesity. While at least four additional popular books guide potential weight loss surgery patients in addition to numerous online guides and support groups, I have chosen to use Boasten as my primary representation of the lay pro-surgery perspective for this section. I selected Boasten’s work because it has a high sales rank among the guides that were not written by doctors. Additionally, I chose to look at Weight Loss Surgery: Understanding and Overcoming Morbid Obesity because it is regularly sold on online bookstores (eg. Amazon.com) with Carnie Wilson’s book Gut Reactions. Because I consider the celebrity role in promoting weight loss surgery significant, I think that the sales connection between Wilson’s and Boasten’s works indicates that the readers of Boasten are likely to have been affected by images of Wilson. Of course, the comparison and detailed analysis of the many guides for weight loss surgery would lend greater support to my research. However, due to time and resource constraints, it is necessary for such a comparison and analysis to be the focus of future work.

### **Qualifying for Weight Loss Surgery**

There are several key players in the path to weight loss surgery. Boasten recognizes these below in a passage from her book entitled, “Am I a Candidate for Bariatric Surgery?”

This all depends on whom you ask. If you are asking your PCP (primary care physician), you will get one answer. If you are asking the bariatric surgeon, you will get another answer. There are nationally recognized standards established by the National Institute of Health and Millman & Robertson, which is a nationally recognized source for establishing medical necessity for the insurance industry. Still, the insurance carrier will have its own set of standards that they will use to judge whether or not you are “worthy” of having bariatric surgery (Boasten, 61).

#### The Primary Care Physician

Boasten’s guide is very much in favor of weight loss surgery. In Weight Loss Surgery: Understanding & Overcoming Morbid Obesity, Boasten argues that weight loss surgery is the medically necessary treatment for morbid obesity, a disease that due to

genetic factors an individual should not beat herself up for having – it is not her fault (Boasten, 31). Boasten considers weight loss surgery an operation that saves lives<sup>20</sup>. Accordingly, recognizing that bariatric specialists usually require a referral from the primary care physician, Boasten argues that if your primary care physician is a critic or cynical of weight loss surgery, you should switch to a more supportive primary care physician (Boasten, 62). This is the advice that many feminist scholars have given with regards to treatment for fibromyalgia and chronic fatigue as well as to transsexuals seeking reassignment surgery.

Boasten's instructions construct primary care physicians as powerful gatekeepers on the path to surgery. While the primary care physician is charged with acting in his or her patient's best interest, Boasten recognizes that actions with this intention may not lead to a referral to a bariatric specialist. This situation brings up the question of what counts as best interest.

Best interest with regard to morbid obesity and weight loss surgery varies among primary care physicians. A doctor's determination of best interest is dependent on his or her values and biases<sup>21</sup>. For example, a doctor may not think that health is dictated strictly by weight and because of this might not recommend someone with a BMI of 42 for the surgery. Another example is a doctor who considers weight loss surgery medically necessary - as the only successful treatment for morbid obesity. This doctor would refer a morbidly obese patient who meets weight loss surgery criteria to a bariatric surgeon. There are many more perspectives and actions that primary care physicians might take: some may see weight loss surgery as an available elective procedure; some may be completely against weight loss surgery and refuse to refer any patients; others may offer a referral to every patient who requests one whether or not they meet the criteria for surgery. Boasten's suggestion to look for a primary care physician that supports weight loss surgery disrupts the power of the physician, highlights the role of values in determining best interest, and illustrates the tension between understanding weight loss surgery as medically necessary compared with considering it as elective.

---

<sup>20</sup> The lives of the morbidly obese are often considered lives not worth living. This 'underclass' is controlled by weight loss surgery technologies. Dorothy Roberts give an example of the control of a perceived 'underclass' with another medical technology, Norplant, in her book Killing the Black Body: Race, Reproduction, and the Meaning of Liberty (1997).

<sup>21</sup> The role of a physician's values in determining best practice with regards to patient regulation is illustrated in Dorothy Roberts' discussion of the coercive marketing of Norplant to poor black women in her book Killing the Black Body (1997). The role of medical practitioners in determining whether or not patients are eligible for certain procedures that will have the affect of reinforcing social norms is discussed in Kessler's work, "The Medical Construction of Gender: Case Management of Intersex Infants" (1998), and Stone's work, "The Empire Strikes Back: A Posttranssexual Manifesto" (1998).

### The Bariatric Surgeon

Whether the weight loss surgery candidate reaches the bariatric surgeon by referral from primary care physician or even by self-referral, she must meet the criteria of the bariatric specialist to qualify for an obesity-reducing operation. According to Boasten, these criteria vary among doctors but tend to be in line with the guidelines provided by the National Institutes of Health and the American Society for Bariatric Surgery (Boasten, 62).

The American Society for Bariatric Surgery states that weight loss surgery should be offered to patients who are morbidly obese, well informed, motivated, accepting of operative risks, and dedicated to long-term follow-up. A risk-benefit analysis should be performed for each prospective patient and each patient must be analyzed for psychopathologies that may jeopardize her ability to give informed consent (American Society for Bariatric Surgery). In addition to these general qualifying factors, the final judgment of which patients are eligible for weight loss surgery is in the hands of the surgeon. The National Institutes Consensus Development Conference of 1991 concluded that “patients judged by experienced clinicians to have a low probability of success with non-surgical measures, as demonstrated, for example, by failure in established weight control programs or reluctance by the patient to enter such a program, may be considered for surgical treatment” (National Institutes of Health).

Surgeons use the BMI to determine potential candidates for weight loss surgery. According to the American Society for Bariatric Surgery and the National Institutes of Health, individuals with a BMI greater than 40, the strong desire for substantial weight loss, and a clear and realistic understanding of how their lives may change after surgery are good candidates for bariatric surgery. However, those with a BMI over 40 who are suffering from severe co-morbidities may need to be hospitalized before surgery to reduce operative risks. If operative risks or BMI are too high, they may be turned away from surgery. Some less severely obese patients, with BMIs between 35 and 40, may be considered for surgery if they suffer from life-threatening co-morbidities such as severe sleep apnea or severe diabetes. Additionally, patients with BMIs between 35 and 40 may qualify for weight loss surgery if they have obesity-induced physical problems that interfere with lifestyle. Such problems include musculoskeletal or neurologic or body size issues that preclude or interfere with employment, family function, and ambulation (American Society for Bariatric Surgery).

I find the concession to provide surgery for less severely obese people with BMIs between 35 and 40 because of body size problems to be the most interesting qualifying factor for surgery. It appears to acknowledge that the obese are regularly discriminated against by society (employment, relationships, etc.) and that the experience of living as an obese person may count as a co-morbidity. Further, it is interesting that the bariatric specialist, as gatekeeper of weight loss surgery, gets to make the decision of whether or not an individual's body size is a significant enough co-morbidity to rationalize her surgery. This may be part of what Boasten was referring to in the passage that I used at the beginning of the section “Qualifying for Weight Loss Surgery” when she argued that primary care physicians, surgeons, and insurance companies decide who is “worthy” of weight loss surgery. Boasten's book seems to be a guide to how to obtain worthiness –

either by speaking to the right people or by giving the approved performance<sup>22</sup> of a regularly qualifying patient.

### Financing Surgery

Weight loss surgery, without consideration of follow-up procedures, costs on average between \$20,000 and \$30,000 (O'Neill, C01). A growing number of states have passed or are working to pass legislation that requires insurance companies to provide benefits for weight loss surgery when the patient meets the National Institutes of Health surgical criteria (Ethicon Endo-Surgery). In fact, Louisiana state representative Jean Doerege is currently pushing for proposed House Bill 68 that would require insurers to pay for weight loss surgery in her state. Doerege is arguing that insurers will save money in the long-run by paying the one time expense of surgery and not having to pay the much greater expenses of major diseases that would occur later in morbidly obese individuals (Courreges, 1-B). In the same spirit, on September 23, 2002, thousands of people took part in Ontario's "Million Pound March," a demonstration to fight funding cuts for weight-loss surgery providers in the province (LaFlamme, 1).

Despite the legislative and activist push for insurance coverage, some states and some insurance programs cover weight loss surgery, while others do not. In her description of the steps required to qualify for weight loss surgery, Boasten argues that in general insurance companies are able to make up their own guidelines to qualify or disqualify their clients for coverage (Boasten, 64). She devotes a chapter of her book to advice as to how to do battles with insurance companies that include unclear policies, exclusion statements, gaining pre-authorization, and establishing proof that you meet the criteria for surgery. Still, many people - Boasten records 25% - are unable to get coverage for their obesity-reducing operations and they choose to pay out of pocket (105). Boasten suggests that these self-payers take out home equity loans, borrow against their retirements, use credit cards, borrow from friends and family, and hold fundraisers. She argues that individuals who firmly believe that surgery is the right thing for them will find a way to pay for it (107).

As weight loss surgery becomes more popular, whether it is being financed by insurers or paid for out of pocket, the demand on bariatric surgeons increases. Bariatric medicine is becoming a very lucrative business. As a result, membership in the American Society for Bariatric Surgery, now with more than 570 members, has grown by 30% in the last two years (Jacob and Jackson). As the practice of bariatric surgery gets

---

<sup>22</sup> Stone discusses the practice of performing the qualifications of the appropriate candidate for transsex surgery in the article "The Empire Strikes Back: A Posttranssexual Manifesto" (1998). Patients study the medical requirements for surgery qualification and then act them out in their interactions with physicians whether they are true or not. This practice disrupts the power of medical practitioner as gatekeeper to the surgery but at the same time it erases the true state of the performing candidate from the understanding of transsexuals. The act of performing qualifications leads to the question: should anyone who desires surgical intervention be able to get it if they can afford it? What types of surgeries need to be regulated? These questions are particularly important with regard to weight loss surgery.

increasingly competitive while the demand from patients gets stronger, many surgeons and surgical centers establish themselves by putting up websites, running television and radio commercials, and hosting informational seminars.

I think that the business and finance side of bariatric surgery is particularly interesting. It makes sense that more specialists will emerge as the demand or perceived need for weight loss surgery grows. However, I don't know of many medical procedures, other than cosmetic ones (separate from pharmaceutical campaigns that prevail), that have such an advertising presence<sup>23</sup>. Once again, this seems to be a demonstration of the elective character of weight loss surgery. Patients find out about the surgery outside of the doctor's office and they research it and seek it out on their own. Because of the process by which surgery is obtained, bariatric specialists are motivated to advertise in order to attract clients. While other products and programs for weight loss are advertised in the same media outlets as bariatric surgery, I would argue that obesity-reducing surgery is a very different method of weight loss. But because weight loss surgery, Jenny Craig, and Metabolite are advertised in the same space, the serious risks and outcomes of weight loss surgery may be perceived to be less than they are. Weight loss surgery may get categorized as just another reducing product.

### **Pre-operative Fantasies**

After a patient has been approved for surgery, she goes through a period of preparation for the event. Boasten discusses this in Weight Loss Surgery: Understanding and Overcoming Morbid Obesity. She suggests that pre-operative patients deal with false hopes about how their lives will improve as they lose weight. She points out five common fantasy traps (Boasten, 112-116):

- ❑ "I'm no longer going to be single."
- ❑ "My marriage will be better, my spouse will love me more."
- ❑ "I can eat anything that I want."
- ❑ "I'll be happy."
- ❑ "I'm going to be outgoing."

Four out of five of these fantasies connect psychological, emotional, and social happiness with weight loss. This relates to our understanding of the relationship between bodily appearance and identity – they are unified in our culture (Giddens). If these are the fantasies of pre-operative patients, mostly women, then we should question their motives for obtaining surgery. Although weight loss surgery is constructed as a medically necessary procedure as it is rationalized by medicine and to insurance companies, fantasies surrounding the surgery seem to signal that consumers are daydreaming about resultant cosmetic and identity changes. Pre-operative weight loss surgery patients don't fantasize about getting off their hypertension medication, they fantasize about being loved and having successful relationships. These motivations are

---

<sup>23</sup> The one comparable medical procedure that has such an advertising presence that I can think of is corrective eye surgery for myopia (lasik surgery). Male circumcision is not explicitly advertised but is another example of a aesthetic surgery that is framed as a medical imperative.

regularly represented and reinforced through images of weight loss surgery in the media – as I demonstrated at the beginning of this chapter.

The pre-operative fantasy, “I can eat anything that I want,” is significant. Boasten confronts this fantasy with an explanation of the constraints of the post-surgery diet. I, on the other hand, think that the fantasy about eating has to do with issues of power and control. By the time a patient has been qualified for surgery, she should be keenly aware of the dietary restrictions that she will have to live with in her post-operative life – in fact, this awareness is part of the surgery qualification process. Instead, I want to suggest that the eating fantasy has to do with a shift in control. Morbidly obese individuals are particularly aware of the importance of control of eating because they live as the people perceived not to have it. Their severe obesity is regularly assumed to result from their uncontrolled eating habits. Because of this, there is a continuous, though often unspoken, pressure on the morbidly obese to take control and thereby attain health. I think that the “I can eat anything that I want” fantasy signifies a surrender of this power. It is physically impossible for post-operative individuals to eat whatever they want without getting very ill. However, this limit is no longer regulated by individual will. Rather, it is determined by a shrunken stomach and rerouted intestines.

### **Preparation for Surgery**

In addition to the suggestion of coping with weight loss surgery fantasies, Boasten encourages pre-operative patients to make a variety of arrangements in preparation for their surgery. These include common sense steps like purchasing food and medications for use immediately following surgery, lining up support from family and friends, making the home comfortable, getting pre-operative testing (EKG, psychiatric evaluation, pap smear, etc.), assigning durable medical power of attorney, and making a will (Boasten, 118-121).

Boasten also directs pre-operative individuals to create a website at the Online Association for Morbid Obesity Support – located at [obesityhelp.com](http://obesityhelp.com) (118). Boasten argues that it is important to share your weight loss surgery story as a form of encouragement for others. The Online Association for Morbid Obesity Support (AMOS), with a self-reported membership of 70,258, offers peer support and resources to those dealing with weight loss surgery. These include opportunities to meet local peers, a clothing exchange, and a chat room that is open twenty-four hours per day. Members of the AMOS community document their steps pre-surgery and post-surgery in their personal profiles. They communicate with each other, answer questions, and offer well wishes over message boards.

The most interesting part about the site is that it seems to be centered upon a collection of before and after weight loss surgery photos that members of the community have submitted in addition to their personal weight loss surgery narratives. The opening flash sequence to the site features three sets of these pictures that exhibit dramatic weight loss. As each of the photos appears, the background music changes to the word “wow.” While weight loss surgery does produce dramatic weight loss, it also entails risks and often complications. The picture show hides these risks. Additionally, the photo comparisons highlight the aesthetic improvement over the medical improvement that

comes with weight loss from surgery. The after photos in the opening session and in the larger collection found on the AMOS site tend to be much more sexualized (with dress, cosmetics, and pose) than the before photos.

### **Post-operative Life**

During and after the period of weight loss following bariatric surgery, Boasten suggests that there are two non-medical and non-food related adjustments with which women must cope. These involve the comments and questions of those around the patient and knowing the patient's knowing that she is being watched. Boasten explains:

**Comments & Questions:** You will get comments and questions from anybody and everybody. Those who know you well will ask everything from how much you've lost to requests to see your incisions. If you don't want to show off your incision, kindly decline the request. Or if you are willing to "show and tell," consider showing photos of your incision if you are unable to show the real thing.

Even those who don't know that you had surgery can't help but comment as the weight starts to come off. Some people have tact, others don't. I suggest that you rehearse your answers because you will repeat them often. The people around you will have a natural curiosity. Some are rejoicing with you, others will be jealous of you. But this too will pass. As time goes on, you will mix in with the rest of the normal size people and the fact that you were once morbidly obese will no longer be the hot topic of conversation.

**On Display:** For the first year post-op, the people around you will watch you closely. They'll watch how you fix your plate, how much you eat, how slow you eat, and what you eat. People are somewhat fascinated to see you change before their eyes and although you may not want to be "on display," you will be. Take pride in knowing that you have a life worth observing! Like the comments, the monitoring of your post-op behaviors will subside in time. Keep in mind that the same adjustments you are dealing with on the inside and outside are also shared by those around you. You have to get ready for the new you and so do they (Boasten, 150).

Both of these adjustments speak to the constant surveillance of the body and the blurred distinction between private and public body. People will observe the shrinking volume of the post-operative individual's body and request to see proof of technological intervention – the scar. I think that it is interesting that Boasten suggests showing photos of the incision instead of the actual physical one. The photo decontextualizes the incision. It becomes a mark on flesh in a picture. The photo puts distance between the technology and the person. Viewing the incision scar on an individual's body tells a different story. It marks the person with the scar as having been morbidly obese and having made the decision to undertake the risks and compromises of surgery in order to lose weight. The incision scar marks a fixed body.

Boasten points out that as time goes by the post-operative individual will fit in with normal sized people and will no longer be the topic of conversation. The markings of their previous deviance, their morbid obesity, will be covered by their clothing. Often, post-operative individuals obtain cosmetic surgeries to remove the folds of excess skin that result from their dramatic weight loss. Weighing less isn't enough. These people want to look normal. They want to pass.

## **Normalizing Female Bodies**

We are what we look like. We are how we are perceived. Our identities are determined in the eye of the beholder<sup>24</sup>. Our identities are determined by the normative values that influence how the beholder gives meaning to what he or she sees. We are constantly immersed and understood in culture. While there is a biological component to our bodies, our understanding, framing, and knowledge of the biological component are culturally based<sup>25</sup>. For example, my BMI is 47. BMI is measurement that we have defined and accepted as an appropriate method of understanding the relationship between height and weight – a proportion that we feel it is important to measure and understand. The connection of BMI with health is based on the cultural perception that health is valuable and certain BMIs are better than others, or healthier. Science, technology, and medicine, as culture, give meanings to our bodies. The authority of the medical perspective that considers fat bodies to be unhealthy and a drain on the public good gives power to the perspective that considers fat bodies, particularly fat female bodies, unattractive. This linkage between unhealthy and unattractive bodies<sup>26</sup> is important in the conceptualization of weight loss surgery as cosmetic surgery.

### **The Significance of Gender**

Because gender plays a significant factor in our understanding of bodies, we must consider the significance of weight loss surgery being primarily a technology used by women. The framework of mind/body dualism has associated women with the unruly and emotional body that is in need of being controlled<sup>27</sup>. Accordingly, the fat female body appears especially threatening. As I mentioned earlier in this paper, there are four times as many morbidly obese women than there are men. The threat of the morbidly obese female body compounded by the number of morbidly obese female bodies influences the imperative of the obesity epidemic and our willingness to accept the risks and restrictions

---

<sup>24</sup> See Giddens' Modernity and Self Identity: Self and Society in the Late Modern Age (1991) and Brumberg's The Body Project: An Intimate History of American Girls (1997). Both works discuss the body as representative of identity.

<sup>25</sup> Bordo discusses this in the introduction to Unbearable Weight: Feminism, Western Culture, and the Body (1993).

<sup>26</sup> See Edgley and Brissett's discussion of medicine as a mask for moral revulsion in "Health Nazis and the Cult of the Perfect Body: Some Polemical Observations" (1990).

<sup>27</sup> Kandi Stinson argues that to be female is to diet in her book Women and Dieting Culture: Inside a Commercial Weight Loss Group (2001). Stinson argues that women's increased likelihood of dieting result from antifat attitudes that target women. These attitudes come from notions of mind/body dualism.

of weight loss surgery when we take it as a treatment. When bariatric surgery is constructed as the one way to save lives that are not worth living and those lives that are considered in need of being saved are, for the most part, female, then gender is significant. While I do not want to essentialize what it means to be a man or woman, I do want to assert that men generally have more power than women in American culture. For example, while most of the patients acted upon with weight loss surgery are women, most of the founding doctors of bariatric surgery were men.

As women are more likely than men to utilize weight loss technologies, they are more likely than men to undergo cosmetic surgery. According to the American Society for Plastic Surgeons, women made up 87% of the patients for cosmetic surgery in 2001 (“More Men Considering Plastic Surgery”, 2003). This is not because men are objectively more beautiful than women. Rather, it is because it is more important that women are considered beautiful when judged against normative standards. Although men’s cosmetic body projects are becoming more common, women’s body projects prevail. Women claim power through self-control and beautification<sup>28</sup>.

It is important to recognize the critique of attaining power through beautification and self-regulation. While these practices can be useful, by achieving and accepting power through body control, women reinforce the framework that designates their worth to the realm of the body in the first place – a framework that considers women inferior to men. Further, by participating in beautification practices and reaping power from them, women legitimize body control as a power source and reinforce normative beauty standards.

### **Boundary Work: Weight Loss Surgery as Cosmetic Surgery**

While weight loss surgery eliminates and reduces the co-morbidities of morbid obesity, producing real medical benefits, it does so because it causes dramatic weight loss. This weight loss also increases the perceived aesthetic and social value of the post-operative patient when she is judged on a normative scale. Weight loss surgery produces both medical benefits and cosmetic enhancements.

While weight loss surgery produces similar consequences to cosmetic surgeries such as liposuction, it is definitely unique. Liposuction, which removes fat cells at a specific locality, causes minimal weight reduction and an improved appearance. However, unlike weight loss surgery, liposuction does not alter the systems of the body and it does not provide a cure for diabetes. Liposuction is also not a realistic weight-reducing treatment for the morbidly obese.

The connection of weight loss surgery with cosmetic surgery is purposefully avoided in medical and guidebook texts. One reason for this is because of the

---

<sup>28</sup> Morgan discusses the influence of social ideals and normatives in shaping women’s decisions to obtain cosmetic surgery in her article “Women and the Knife: Cosmetic Surgery and the Colonization of Women’s Bodies” (1998). Brumberg discusses girls and women’s body projects in great detail and with historical perspective in the book, The Body Project: An Intimate History of American Girls (1997).

devaluation of cosmetic surgery, or the “easy way out,” in the insurance-focused, dominant health paradigm. Spotlight Health illustrates the danger of this connection in the following passage:

Despite these staggering numbers, weight loss surgery continues to face stigmatization. There is a misconception that it is a "cosmetic procedure," instead of the potentially life-saving procedure it can be to thousands of patients each year. Others view surgery as "the easy way out," unaware of the disciplined changes in eating and lifestyle that patients must adopt in order to best use their "new stomach" after surgery. Weight loss surgery also takes a lot more time than you might think - as much as 18 months or longer - to reach optimal results.

"It is a not a quick fix," says Carnie Wilson. "Weight loss surgery helps you control what you could not otherwise control. But you still have to stick with a diet and exercise if you want to get all the weight off" (Spotlight Health).

In order for weight loss surgery to be rationalized as a medical necessity the bariatric surgeons, weight loss surgery patients, and their supporters must avoid the connection with cosmetic surgery, which is considered elective surgery. Weight loss surgery must be constructed and understood as a legitimate and necessary way of saving people from the disease of obesity – from the epidemic at hand. This status must be maintained in order to give credibility to bariatric procedures and research as valid medical practices. It gives authority to bariatric surgeons who treat morbid obesity and epidemiologists, public health officials, and others who consider obesity a disease.

At the same time, as we saw in the analysis of representations of weight loss surgery in the media at the beginning of this chapter, it is important to maintain the distinction of weight loss surgery from cosmetic surgery in order best to encourage patients to be aware of the drastic nature of the surgery and the risks that it entails. The women featured in the article, “Weighing the Risks,” illustrate that a blurring of the boundary between weight loss surgery and cosmetic surgery might allow for women with motivation for cosmetic improvement to obtain surgery without being educated in its serious medical nature. In the article, these women argued that they would not have obtained weight loss surgery if they had known what might happen to them.

Further, the medical categorization of weight loss surgery and its endorsement as a necessary treatment encourages, and in cases of legislation, works to make insurance coverage of the procedures mandatory. The applicability of insurance coverage to weight loss surgery is absolutely fundamental. The majority of bariatric surgery patients are only able to obtain the operation because of insurance coverage. Without insurance, they would have to find a way to pay \$20,000 to \$30,000 out of pocket, before dealing with long-term care and complications. The number of individuals able to afford weight loss surgery would decrease. This decrease would happen in the pool of people who would normally be covered by insurance but also in those who in the current state are made to pay out of pocket. Part of the reason that patients are currently motivated to find the

money to pay for their own surgeries, not to mention to assume the associated risks, is because they are made to believe that it is a medically necessary treatment for their disease.

There are numerous stakeholders invested in maintaining the boundary between weight loss surgery and cosmetic surgery. While this boundary is by no means natural, it is meaningful. The boundary upholds the legitimacy of using weight loss surgery for treatment of the morbidly obese. It works to ensure that surgery candidates are aware of the serious medical consequences – intended and unintended – that may result from the surgery. This classification enrolls patients, medical specialists, public policies, insurance coverage, and a supportive social context. These actors interact in support of each other and the paradigm of weight loss surgery. For example, insurance coverage allows patients to obtain surgery and it allows bariatric surgeons to get paid for surgery. This creates a demand that more medical doctors obtain training in bariatric medicine.

The boundary between weight loss surgery and cosmetic surgery is important for maintaining the current paradigm and increasing the normative value of surgery for the treatment of obesity. However, the boundary is easily blurred when examining the thoughts of weight loss surgery patients (see discussion of Boasten's list of weight loss fantasies) and images of weight loss surgery in the media. Such a blurring is necessary in an analysis of weight loss surgery that seeks to disrupt both the medical disciplining of female bodies and the connection of thinness in women to beauty, health, and power.

In positioning myself, I am caught in the tension between theory and practice. As a feminist, I am critical of the values and practices that weight loss surgery perpetuates and legitimizes with its non-cosmetic label. I want to argue for weight loss surgery to be considered cosmetic surgery in order to remove some authority from the field while at the same time working to disrupt a network that considers my fat body in need of fixing for medical reasons. In light of the understanding of weight loss surgery as cosmetic surgery, the operation to fix my body would be seen as an elective procedure used for beautification purposes. I think that this disruption might work to make explicit the connection between health perspectives, beauty standards, and our values.

However, at the same time, I want to make weight loss surgery as safe as possible for those who pursue it – whatever their reason. Research shows that this may necessitate maintenance of the boundary between weight loss surgery and cosmetic surgery in order to guarantee that patients are made to meet strict criteria, including demonstrated understanding of the risks the procedures entail, before they qualify for obesity-reducing operations. I might also argue for the continued distinction between weight loss surgery and cosmetic surgery because, although this distinction involves the construction of fat people as diseased, it allows for insurance coverage of bariatric procedures. I know that it is difficult to live fat, and I recognize that even though weight loss surgery perpetuates the stigmatization of fat, it is a way out of it. Insurance coverage increases the possibility of this way out.

The boundary between weight loss surgery and cosmetic surgery has complex implications. While I can argue for both the maintenance and the removal of this

boundary, I think that the most important thing is recognizing that the boundary exists and that it plays an important role in numerous power relationships surrounding weight loss surgery.

## **Conclusion**

### **Fixing Women**

The main argument of this thesis is that among obese Americans, females and their bodies are especially stigmatized and pathologized. Science, technology, medicine, and policy focus to fix these women who are perceived by society to be in need of control. This thesis serves as a mapping of the issues that are important to understanding the contemporary significance of weight loss surgery. It aims to identify and begin to understand the complex network of power relationships surrounding weight loss surgery technologies and culture. This work is an analysis of how societal values have shaped our ideas of health and disease, the designs and marketing of weight loss surgery technologies, and the ways in which obesity-reducing operations are accepted and desired. My acknowledgement of the tension between theory and practice – the competing perspectives that I have as both a feminist scholar who recognizes the way in which weight loss surgery technologies are used to regulate deviant bodies and as a fat woman who knows how tough it is to live in an anti-fat society – is central to this analysis.

I began this work, in Chapter One, by establishing the American obesity epidemic as the context for understanding weight loss surgery. I started to deconstruct the terms that have framed fat as a social problem and obesity as an epidemic and I argued that the powerful label of “epidemic” is used to invoke ideas of chaos and to recognize obese bodies as being in need of outside control. I acknowledged that although efforts to contain, treat, and prevent obesity could tackle environmental factors, we resist this treatment paradigm because it could pose threats to societal customs and economic interests. Instead, we utilize a paradigm that focuses treatment on the individual. This fits with the perception that an individual is at fault for his or her own obesity and is in line with the understood connection between body and identity in late modernity.

In the second chapter I provided a brief history of the use of surgery in the treatment of obesity. Weight loss surgery is currently considered the only successful treatment for morbid obesity and it is a treatment that is primarily consumed by women. Several types of surgery are now in use, but the Roux-en-Y gastric bypass, a malabsorptive procedure that involves a severe restriction of the stomach and a significant rerouting of the intestines, is the most popular and is considered the most drastic and successful of the procedures. I detailed the methods by which weight loss surgery forces anorexia. This includes an explanation of how patients are unable to sabotage their weight loss because of the painful side effect of dumping syndrome that occurs with over-eating. I gave the medical rationale for weight loss surgery – the perspective that the risks of morbid obesity outweigh the risks of obesity-reducing surgery – and listed just what these risks are.

The third chapter provided a discussion of both the culture of weight loss surgery and the boundary that separates weight loss surgery from cosmetic surgery. I began the

chapter with recognition of the role of celebrity in the promotion of weight loss surgery and focused specifically on weight loss surgery spokeswoman, Carnie Wilson. I moved into a discussion of other representations of weight loss surgery in the media through an analysis of two articles that were published in *People* magazine. My examination of the articles revealed the blurring of the line between weight loss surgery and cosmetic surgery as well as the danger that can occur as a result of the loss of this distinction. In the second section of Chapter Three, I used Michelle Boasten's guidebook to weight loss surgery, Weight Loss Surgery: Understanding & Overcoming Morbid Obesity, to consider the process that a woman must go through in order to obtain weight loss surgery. The path to qualifying for and affording surgery involves negotiations with primary care physicians, bariatric surgeons, and insurance companies – the powerful gatekeepers of weight loss surgery. It involves performing worthiness. I illustrated how a doctor's values influence his or her consideration of what counts as the best interest for the patient and what counts as a performance worthy of weight loss surgery.

I continued the discussion of the boundary that distinguishes weight loss surgery from cosmetic surgery at the end of Chapter Three. As a feminist, I argued for the deconstruction of this boundary, the medical disciplining of deviant bodies that it entails, and the normative beauty/ health values that it reinforces. On the other hand, as a fat female, I argued that the medical distinction of weight loss surgery is useful in that it has the effect of decreasing the chance that patients will be unaware of the risks of the surgery. The medical distinction also justifies the insurance coverage that allows fat women to use it as a way out.

All in all, this thesis is a discussion of a specific technological fix to morbid obesity in women. My main argument is that this technological fix, weight loss surgery, has been designed specifically to establish control over threatening female bodies. It does so by removing a woman's ability to regulate her own eating. After weight loss surgery, a woman must consume a limited quantity and specific diet of food in order to live, while, at the same time, her reconstructed digestive tract will not allow her to overeat. The design of weight loss surgery defines morbid obesity as a problem of the will. It aims to intervene in an addictive behavior.

However, the addiction versus free will framework for understanding weight loss surgery offers up a paradox. While weight loss surgery is constructed as an intervention into an obese individual's addictive behavior of eating, it produces an anorexic that demonstrates the addictive behavior of not eating. Weight loss surgery solves one form of addiction by creating another. Anything can be constructed as addictive. And, as there needs to be recognition of the healthy state in opposition to compulsion, anything can be constructed as an exercise of free will<sup>29</sup>.

Not everyone who eats a large number of calories is obese, and every obese person does not have an above-average caloric intake. In the case of weight loss surgery, weight indicates food addiction. When a woman records a certain number on the scale

---

<sup>29</sup> This is Sedgwick's main point in the article "Epidemics of the Will" (1995). Addiction attribution is based on value judgment.

and achieves a specific BMI, intervention is rationalized. Because morbidly obese women are constructed as food addicts, weight loss surgeries are designed with the purpose of disrupting the putative addiction. And morbidly obese women are expected to exercise their free will, the will to freely choose health in order to obtain weight loss surgery. Weight loss surgery, because of the reduction in co-morbidities that comes with weight loss and in light of normative anti-fat attitudes, is held up as the healthy choice.

While weight loss surgery may be considered an exercise of free will, it results in a body that does not have it. Post-operative women cannot eat. This addiction, created as permanent by weight loss surgery technologies, presents no opposing option for exercising free will. Reversals of weight loss surgery are very rare and dangerous. The permanency of the technology is enforced by the bariatric doctor who by way of his or her identity as a bariatric specialist, shares the normative medical perspective that sees the necessity for life-long treatment of obesity. Therefore, those who obtain weight loss surgery permanently sacrifice their ability to eat freely. Some may resist weight loss surgery precisely on these grounds, without ever problematizing the free will or addiction attribution dilemma.

This analysis reveals the preference of thin (controlled) and even anorexic bodies over fat (uncontrolled) bodies that is institutionalized in science, technology, medicine, and our framework for understanding public health. This demonstration of the socially constructed character of health, in combination with our perception of health as the responsibility of an individual, illustrates the foundational values that are embodied in the framing of obesity as a disease, the prevalence of obesity in America as epidemic, and the development and acceptance of weight loss surgery as the best possible fix. Health is a measurement of normative being and weight loss surgery is a way to normalize morbidly obese female bodies.

While I would like to encourage women to avoid weight loss surgery in an act of resistance to the values that it perpetuates – the very ones that construct us as diseased individuals – I concede that I don't think that such a resistance would actually have the affect of disrupting the power differentials embedded in our anti-fat paradigm enough to improve the quality of life of these women. Because I am not sure if revolution is possible, I think that we need to work to make weight loss surgery safer. We need to encourage the design and consumption of procedures with minimal side effects, maximum benefits, and the possibility for patient determined reversal. These suggestions recognize that women can be empowered through weight loss surgery and aim to maximize this empowerment.

While I argue that fat women have the right to the respect and opportunities that are afforded to thinner women, and I will personally work to achieve these goals, I know that the pain of living morbidly obese is real and I would like to know that there is a safe way out. I acknowledge that the development and use of technological fixes to morbid obesity runs the risk of further ghettoizing the morbidly obese and I do not like the possibility. At the same time, if a safe fix existed, I'm not sure that I wouldn't opt out of the fight.

## Future Directions

This introductory analysis of gender and weight loss surgery provides a foundation for future work. In this section, I will briefly map areas deserving of future research and analysis. Some of these focal points were alluded to in the previous text, while others were not.

A dissertation-level treatment of the issues surrounding the use of weight loss surgery as a solution for morbid obesity in American women would need to include in depth reviews of STS literature on gender theory as well as the relationship between technology and the body. It would be necessary to obtain a complex understanding of power. This could begin with analysis of Foucault's works.

In addition, literature on public health, the general gendering of medicine, and the history of fat/obesity should be reviewed. I need to get a clearer understanding of the distinction between normalcy and pathology. For this I could start with Canguilhem's work. It would be beneficial to look at the use of metaphor. For example, the term *morbid* in the medical label of morbid obesity has meaning that could be important to understanding the construction of obesity. Additionally, I would like to gain a more in depth understanding of the meaning of *epidemic* in terms of obesity.

Several issues for further analysis accompany my method of examining popular representations of weight loss surgery. In the future, I should thoroughly review the literature on the popularization of science and the co-production of knowledge in order to properly situate my study. There is much analysis to be done of representations of weight loss surgery in the media. I could compare weight loss surgery guidebooks. I might examine Internet self-help culture. Both projects would contribute to an understanding of expertise with regard to weight loss surgery that moves beyond that which is embodied by the scientific and medical elite.

If I plan on using autoethnography as my method for analysis in future work, it might be beneficial to go through the steps that other women go through in obtaining weight loss surgery and reflecting on these experiences. For example, I could attend an information session put on by a center for bariatric surgery or I could participate in an online support group. If I did this, it would be important to journal my interactions with others involved with and going through the process as well as my thoughts at each step.

I may find it useful to use interviews as part of my research for future work. This method would allow me to learn first-hand information about an individual's motivation for obtaining weight loss surgery and the reactions that he or she has to it. I think that interviews would help me to continue the boundary work that I have begun in this thesis - analyzing the popular characterization of weight loss surgery as a cosmetic surgery when it is simultaneously presented as a medical imperative.

I am very interested in learning more about how the social factors including gender, race, and socioeconomic status that were mentioned in the NIH consensus statement of 1991 affect the results of obesity-reducing operations. In future work, I might research the invisibility (or visibility) of gender, race, and socioeconomic status in the tools (BMI, etc.) and policies surrounding morbid obesity and weight loss surgery.

Additionally, I would like to think about the shaping of the actual weight loss surgery technologies. What would weight loss surgery look like if men were its primary consumers? Would the risks that are considered acceptable now be acceptable if men were the majority of patients? How would reversibility of the procedure factor in? Would the steps that are currently required to obtain weight loss surgery change for men? I am also eager to think about whether or not weight loss surgery and the risks that it entails would be accepted medically and socially as it is now if it did not produce the cosmetic improvement of weight loss. Would people seek out surgery for obesity and accept its risks if beautification was not a side effect?

Weight loss surgery is a fascinating topic for STS work. For me, it offers the promise of intellectual stimulation and personal growth. Future analyses may contribute to theoretical knowledge about the gender-technology relationship and, perhaps more significantly, I think that such knowledge could affect weight loss surgery policy and practice in America. There is much to be done.

# Appendix

## Gastrointestinal Surgery for Severe Obesity National Institutes of Health Consensus Development Conference Statement March 25-27, 1991

-----  
This statement was originally published as:

Gastrointestinal Surgery for Severe Obesity. NIH Consensus Statement 1991 Mar 25-27;9(1):1-20  
-----

**NIH Consensus Statements are prepared by a nonadvocate, non-Federal panel of experts, based on (1) presentations by investigators working in areas relevant to the consensus questions during a 2-day public session; (2) questions and statements from conference attendees during open discussion periods that are part of the public session; and (3) closed deliberations by the panel during the remainder of the second day and morning of the third. This statement is an independent report of the panel and is not a policy statement of the NIH or the Federal Government.**

**The statement reflects the panel's assessment of medical knowledge available at the time the statement was written. Thus, it provides a "snapshot in time" of the state of knowledge on the conference topic. When reading the statement, keep in mind that new knowledge is inevitably accumulating through medical research.**

□

-----  
Abstract

Introduction

What Are the Nonsurgical Treatment Options for Severe Obesity and Their Consequences?

What Are the Surgical Treatments and Criteria for Selection?

Figure 1 - Vertical banded gastroplasty

Figure 2 - Gastric bypass procedures

What Are the Efficacy and Risks of Surgical Treatments for Obesity?

What Specific Recommendations Can Be Made for the Treatment of Severe Obesity?

What Are the Future Directions for Basic Science, Clinical Research, and Epidemiological Evaluation of Therapy?

Consensus Development Panel

Speakers

Planning Committee

Conference Sponsors  
-----

## **Abstract**

The National Institutes of Health Consensus Development Conference on Gastrointestinal Surgery for Severe Obesity brought together surgeons, gastroenterologists, endocrinologists, psychiatrists, nutritionists, and other health care professionals as well as the public to address: the nonsurgical treatment options for severe obesity, the surgical treatments for severe obesity and the criteria for selection, the efficacy and risks of surgical treatments for severe obesity, and the need for future research on and epidemiological evaluation of these therapies. Following 2 days of presentations by experts and discussion by the audience, a consensus panel weighed the evidence and prepared their consensus statement.

Among their findings, the panel recommended that (1) patients seeking therapy for severe obesity for the first time should be considered for treatment in a nonsurgical program with integrated components of a dietary regimen, appropriate exercise, and behavioral modification and support, (2) gastric restrictive or bypass procedures could be considered for well-informed and motivated patients with acceptable operative risks, (3) patients who are candidates for surgical procedures should be selected carefully after evaluation by a multidisciplinary team with medical, surgical, psychiatric, and nutritional expertise, (4) the operation be performed by a surgeon substantially experienced with the appropriate procedures and working in a clinical setting with adequate support for all aspects of management and assessment, and (5) lifelong medical surveillance after surgical therapy is a necessity.

The full text of the consensus panel's statement follows.

## **Introduction**

In a 1985 National Institutes of Health (NIH) consensus conference, the health implications of obesity were established as including increased risk for cardiovascular disease (especially hypertension), dyslipidemia, diabetes mellitus, gallbladder disease, increased prevalences and mortality ratios of selected types of cancer, and socioeconomic and psychosocial impairment.

Risk for morbidity and mortality accompanying obesity is proportional to the degree of overweight. A simple means to define overweight is by the body mass index (BMI): [weight (kilograms)/height (meters)<sup>2</sup>]. The BMI associated with lowest mortality is between 20 and 25 kg/m<sup>2</sup>. Approximately 4 million Americans have BMI's between 35 and 40 kg/m<sup>2</sup>, and another 1.5 million have BMI's over 40 kg/m<sup>2</sup>. A BMI of 40 kg/m<sup>2</sup> is roughly equivalent to 100 pounds overweight for an average adult male. Persons at the highest risk of morbidity and mortality can be categorized as having "clinically severe obesity," a term that is preferred to "morbid obesity." Patients with severe obesity are potential candidates for treatment by surgical procedures.

The ultimate biologic basis of severe obesity is unknown, and specific therapy directed to it, therefore, is not available. This disorder, nevertheless, is accompanied by a reduction in life expectancy, which is due in large part to significant comorbid associations in the form of metabolic abnormalities and several serious cardiopulmonary disorders. In addition, significant psychosocial and economic problems frequently are experienced by persons with severe obesity. These facts lend urgency to the effort to provide rational care for those seeking relief from effects of this condition.

A 1978 NIH consensus conference on surgery for obesity considered primarily intestinal (jejunoileal) bypass, which exerts its weight-loss effects through malabsorption, decreased food intake, and possibly other mechanisms. This operation was shown to be effective in some reported series of cases, but in many patients it was accompanied by serious complications. The 1978 conference highlighted the undesirable side effects of this operation, and its use has all but disappeared. In the past 10 to 15 years, other types of surgical procedures have been developed; these use reduction in gastric volume, gastric bypass, and other procedures. Mechanisms of weight loss with newer procedures, which may include both food aversion and malabsorption, have not been determined with certainty. Refinements in such procedures have led to reports of results superior to those seen with the earlier operation; however, side effects sometimes do occur, and in spite of weight loss, ideal body weight is rarely attained. The time has come to evaluate the objective evidence for these new surgical therapies.

To resolve questions relating to surgery for severe obesity, the National Institute of Diabetes and Digestive and Kidney Disease and the Office of Medical Applications of Research of the NIH convened a Consensus Development Conference March 25-27, 1991. After 2 days of presentations by experts in the field, a consensus panel representing the professional fields of surgery, general medicine, gastroenterology, nutrition, epidemiology, psychiatry, endocrinology, and including representatives from medical literature and the public, considered the evidence and agreed on answers to the questions that follow.

- 
- 

### **What Are the Nonsurgical Treatment Options for Severe Obesity and Their Consequences?**

Nonsurgical approaches to treatment of clinically severe obesity include various combinations of low- or very low-calorie diets, behavioral modification, exercise, and pharmacologic agents. In addition to weight reduction regimens, comorbid factors such as hypertension, dyslipidemia, and diabetes mellitus can be treated by usual medical methods. Published studies of medical approaches to the treatment of obesity include few reports or indications of efficacy in persons with clinically severe obesity. The potential efficacy of these approaches in persons with this degree of obesity, therefore, must be inferred from evidence of their efficacy in less obese persons.

Nonsurgical treatment of clinically severe obesity aims to create a caloric deficit sufficient to result in both permanent weight loss and reduction of weight-related risk

factors or comorbidity. The specific amount of targeted weight loss is defined on a case-by-case basis and does not necessarily require reduction to ideal body weight.

Very low-calorie diets (VLCD's) have been widely publicized as having dramatic success in the treatment of clinically severe obesity. Typically, these diets contain 400 to 800 kilocalories per day with increased protein and minimal fat in a solid or liquid form. Significant weight reduction, for example 20 kg over 12 weeks, can be expected. However, in the absence of successful behavior modification, most patients regain their lost weight within 1 year. Thus, although VLCD's used under close medical supervision often are effective in short-term treatment of clinically severe obesity, these diets alone generally have not been successful for achieving permanent weight loss. Combining a VLCD with intensive behavioral modification may be more effective than a VLCD alone for treating the severely obese patient. Although data on the use of this approach are few, some evidence suggests that initial treatment with a VLCD followed by intensive behavioral modification may result in sustained weight loss in highly motivated patients with clinically severe obesity.

Behavioral modification is a therapeutic approach based on the assumption that habitual eating and physical activity behaviors must be relearned to promote long-term weight change. Behavioral treatment also can be combined with a lesser degree of caloric restriction, although evidence of long-term efficacy of this more conservative approach in persons with clinically severe obesity is lacking. Although increased physical activity is recommended as a component of weight-loss programs, the role of exercise in promoting and sustaining weight loss has never been established.

Experience with drug therapy for clinically severe obesity has been disappointing. Although pharmacologic studies with anorexigenic drugs suggest short-term benefit, prolonged and sustained weight loss has not been proved with these agents. Drugs such as amphetamines and thyroid derivatives are unsafe and unapproved.

Medical complications of rapid weight loss may occur and are usually treatable. Electrolyte abnormalities and cardiac arrhythmias during administration of VLCD's generally can be avoided or corrected by the inclusion of high-quality protein and frequent physician surveillance. Recent studies have recognized that rapid weight loss may be associated with a substantial incidence of gallstones. Although there are no specific complications of behavior therapy, failure to achieve sustained weight reduction may heighten the patient's sense of personal failure and decrease the motivation for further medical therapy.

Limited success has been achieved by various techniques that include medically supervised dieting and intensive behavior modification. During such a treatment program, comorbidity factors such as hypertension, dyslipidemia, and diabetes mellitus can be treated by conventional medical therapy in the patient with clinically severe obesity. Although weight may be reduced acceptably, a major drawback to the nonsurgical approach is failure to maintain reduced body weight in most patients. The possibility should not be excluded that the highly motivated patient can achieve sustained weight

reduction by a combination of supervised low-calorie diets and prolonged, intensive behavior modification therapy.

### **What Are the Surgical Treatments and Criteria for Selection?**

A number of operations have been tried and discarded as inefficacious or because of complications. Two procedures dominate practice in the early 1990's and have advanced beyond the experimental stage.

Vertical banded gastroplasty (see Figure 1 below) and related techniques consist of constructing a small pouch with a restricted outlet along the lesser curvature of the stomach. The outlet may be externally reinforced to prevent disruption or dilation.

Gastric bypass procedures (see Figure 2 below) involve constructing a proximal gastric pouch whose outlet is a Y-shaped limb of small bowel of varying lengths (Roux-en-Y gastric bypass).

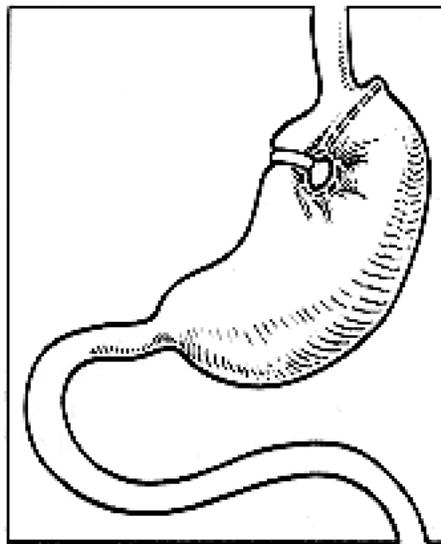


Figure 1. Vertical banded gastroplasty

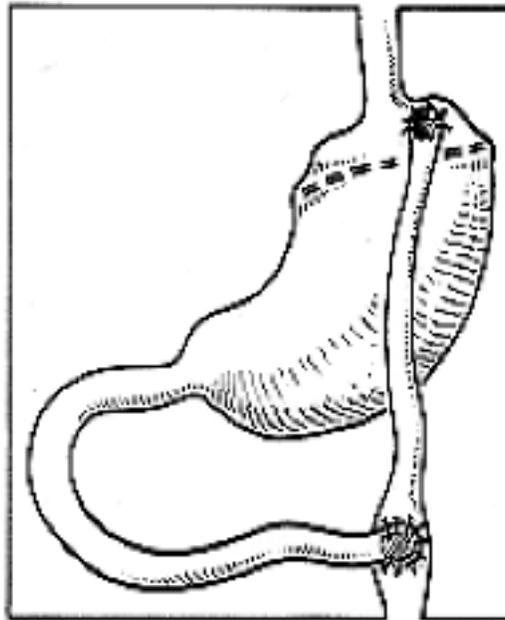


Figure 2. Roux-en-Y gastric bypass

Choosing between these procedures involves the surgeon's preference and consideration of the patient's eating habits. The somewhat greater weight loss after the gastric bypass procedure must be balanced against its higher risk of nutritional deficiencies, especially of micronutrients.

Biliary-pancreatic bypass includes a gastric restriction and diverts bile and pancreatic juice into the distal ileum. Experience with the procedure in the United States is limited.

## Patient Selection

These surgical procedures are major operations with short- and long-term complications, some of which remain to be completely elucidated. There are insufficient data on which to base recommendations for patient selection using objective clinical features alone. However, while data accumulate, it may be possible in certain cases to consider surgery on the basis of limited information from the uncontrolled or short-term follow-up studies available. A decision to use surgery requires assessing the risk-benefit ratio in each case. Those patients judged by experienced clinicians to have a low probability of success with nonsurgical measures, as demonstrated for example by failures in established weight control programs or reluctance by the patient to enter such a program, may be considered for surgery.

A gastric restrictive or bypass procedure should be considered only for well-informed and motivated patients with acceptable operative risks. The patient should be able to participate in treatment and long-term follow-up.

Patients whose BMI exceeds 40 are potential candidates for surgery if they strongly desire substantial weight loss, because obesity severely impairs the quality of their lives. They must clearly and realistically understand how their lives may change after operation.

In certain instances less severely obese patients (with BMI's between 35 and 40) also may be considered for surgery. Included in this category are patients with high-risk comorbid conditions such as life-threatening cardiopulmonary problems (e.g., severe sleep apnea, Pickwickian syndrome, and obesity-related cardiomyopathy) or severe diabetes mellitus. Other possible indications for patients with BMI's between 35 and 40 include obesity-induced *physical* problems interfering with lifestyle (e.g., joint disease treatable but for the obesity, or body size problems precluding or severely interfering with employment, family function, and ambulation).

Children and adolescents have not been sufficiently studied to allow a recommendation for surgery for them even in the face of obesity associated with BMI over 40.

- 
- 

### **What Are the Efficacy and Risks of Surgical Treatments for Obesity?**

Issues of efficacy and risk in bariatric surgical procedures must be viewed in light of the fact that severe obesity is a chronic intractable disorder; any therapeutic program must, therefore, be lifelong.

While definitive therapy for severe obesity is not available, the surgical procedures in use can induce substantial weight loss, and this, in turn, may ameliorate comorbid conditions. Since short- and intermediate-term effects observed in several studies may relate to long-term benefits, further application and investigation of these operations are justified. It must be kept in mind, however, that long-term results are of critical importance and must be delineated. Of special note, many patient cohorts studied to date are not representative of the distribution of race, ethnic and cultural factors, and socioeconomic status among the severely obese population.

## **Efficacy of Surgical Treatments for Obesity**

### **Weight Loss**

The two major types of present operations for severe obesity are vertical banded gastroplasty and Roux-en-Y gastric bypass. The success rate for weight loss has been reported to be slightly higher with the Roux-en-Y operation. Substantial weight loss generally occurs, with the weight nadir occurring in 18 to 24 months. Some regain of weight is common by 2 to 5 years after operation. A third operation, biliopancreatic bypass, about which there are only limited data, also has been reported to produce weight loss but with a higher frequency of metabolic complications.

## **Comorbid Conditions**

Weight reduction surgery has been reported to improve several comorbid conditions such as sleep apnea and obesity-associated hypoventilation, glucose intolerance, frank diabetes mellitus, hypertension, and serum lipid abnormalities. Whether beneficial effects in the various metabolic disorders are maintained long enough to prevent end-organ damage (e.g., renal disease, stroke, myocardial infarction, and heart failure) is not known.

## **Psychosocial Effects**

Many patients report improvement in mood and other aspects of psychosocial functioning after these operative procedures. The degree to which these improvements are sustained is unknown.

## **Risk**

Assessing the risks in the surgical treatment of obesity involves evaluating both perioperative and long-term complications. Available published series report that the immediate operative mortality rate for both vertical banded gastroplasty and Roux-en-Y gastric bypass is relatively low. On the other hand, morbidity in the early postoperative period, i.e., wound infections, dehiscence, leaks from staple line breakdown, stomal stenosis, marginal ulcers, various pulmonary problems, and deep thrombophlebitis in the aggregate, may be as high as 10 percent or more. In the later postoperative period, other problems may arise and may require reoperation. These are pouch and distal esophageal dilation, persistent vomiting (with or without stomal obstruction), cholecystitis, or failure to lose weight. Moreover, mortality and morbidity rates with reoperation are higher than those of primary operations.

In the long term, micronutrient deficiencies, particularly of vitamin B12 folate, and iron, are common after gastric bypass and must be sought and treated. Another potential result of this operation is the so-called "dumping syndrome," which is characterized by gastrointestinal distress and other symptoms. Occasionally, these symptoms may not respond to conservative measures and may be troublesome to the patient.

Many data suggest that deficient nutrition in pregnancy carries with it a high risk of fetal damage or loss. This is of particular concern because as many as 80 percent of patients having weight reduction surgery are women of childbearing age. In view of the uncertain frequency and effects on fetal development of rapid weight loss, micro- or macronutrient deficiency, or other metabolic sequelae of these procedures, secure birth control methods should be provided for these patients during this period of weight loss. They should be informed that maternal malnutrition may impair normal fetal development. Women who become pregnant after these surgical procedures need special attention from the clinical care team. The increased nutritional requirements for energy, protein, and specific micronutrients as well as the normal need for weight gain during pregnancy must be emphasized as part of the obstetrical management of these patients.

Quality-of-life considerations in patients undergoing surgical treatment for obesity must be considered, as there must be reorientation and adjustment to the side effects of surgery and the effect of a changing body image. Euphoria can be seen in patients during the early postoperative period. Some patients, however, may experience significant late postoperative depression. Some patients have depressive symptoms that are not improved by surgically induced weight loss.

□

## **What Specific Recommendations Can Be Made for the Treatment of Severe Obesity?**

Decisions on what therapy to recommend to patients with clinically severe obesity should depend on their wishes for outcomes, on the physician's judgment of the urgency of the need for therapy, and on the physician's judgment of possible options for therapy and their probable efficacy.

Patients seeking therapy for the first time should be evaluated by a knowledgeable physician and provided with sufficient information on which to make a reasonable choice for therapy. In most cases, patients should first be considered for treatment in a nonsurgical program with integrated components of a dietary regimen, appropriate exercise, and behavioral support and modification. Possible comorbidities such as hypertension and diabetes should be sought and treated if not already under treatment. The desired outcomes may vary among patients and include such indices as a gain in the quality of life as judged by the patient, reduction of hypertension, and amelioration of glucose intolerance. A judgment of failed nonsurgical therapy should be followed by a decision for nonsurgical therapy in a different kind of program or with a different therapist, for no further therapy if significant comorbidities do not exist, or for surgical therapy.

Patients who are candidates for the surgical procedures reviewed during this conference should be selected carefully after evaluation by a multidisciplinary team with access to medical, surgical, psychiatric, and nutritional expertise. Patients should have an opportunity to explore with the physician any previously unconsidered treatment options and the advantages and disadvantages of each. The need for lifelong medical surveillance after surgical therapy should be made clear. With all of these considerations, the patient should be helped to arrive at a fully informed, independent decision concerning his or her therapy.

A decision for surgical therapy should be reached only after assessment of the probability that the patient will be able to tolerate surgery without excessive risk and to comply adequately with the postoperative regimen. There must be full discussion with the patient of the probable outcome of the surgery, of the probable extent to which it will eliminate the patient's problems, of the compliance that will be needed in the postoperative regimen, and of the possible complications from the surgery, both short- and long-term. Women with reproductive potential would be well advised to avoid pregnancy until weight has stabilized postoperatively and potential micronutrient deficiencies have been identified and treated.

The operation should be carried out by a surgeon substantially experienced with the appropriate procedures and working in a clinical setting with adequate support for all aspects of perioperative management and assessment. Postoperative care, nutritional counseling, and surveillance should continue for an indefinitely long period. The surveillance should include the monitoring of indices of inadequate nutrition and of amelioration of any preoperative disorders such as diabetes, hypertension, and dyslipidemia. The monitoring should include not only indices of macronutrients but also of mineral and vitamin nutrition.

□

### **What Are the Future Directions for Basic Science, Clinical Research, and Epidemiological Evaluation of Therapy?**

The panel recognized the need to develop safe and effective means to treat patients with clinically severe obesity. In the view of the panel, none of the available therapies, including surgery, has been adequately evaluated. For this reason, it is recommended that centers be developed that can manage patients with clinically severe obesity, using a multidisciplinary approach, and, at the same time, can enter these patients into controlled investigations with long-term follow-up. The research will need to involve a team that includes professionals trained in fields such as epidemiology, nutrition, surgery, general medicine, gastroenterology, cardiovascular-pulmonary medicine, psychiatry, and endocrinology. Only if in-depth investigations are carried out over long periods will needed information be obtained to care for obese patients more effectively in the future.

A series of issues arose during the conference that need additional investigation. These issues include the following:

- \* The balance of efficacy and risk between surgical treatment and nontreatment or alternative treatments of severe obesity is difficult to evaluate with available information. Lacking are studies that use well-defined groups of subjects and standard protocols, with adequate power to define long-term outcomes. Nevertheless, the current reports from case series are sufficiently encouraging to indicate that well-organized clinical trials that address the critical issues surrounding surgical procedures are now in order.
- \* A better vocabulary and nomenclature are critically needed to define clearly terms related to obesity, especially terms defining outcomes. These will improve communication between investigators.
- \* A definition of the natural history of severe obesity is required that can serve as a baseline to evaluate the long-term effects of any form of therapy.
- \* Various surgical procedures should be compared for complication rates, weight loss, long-term weight maintenance, and improvement in secondary complications of obesity.
- \* Several specific issues were identified for better definition of the efficacy and risks of surgical therapy for severe obesity.
- \* The mechanisms whereby surgical treatment produces weight reduction (i.e. malabsorption of nutrients, food aversion, decreased intake, altered metabolism) deserve further investigation.

- \* Further investigation is needed of mechanisms whereby comorbidity factors are reduced by these surgical procedures.
- \* The effects of surgical therapy should be defined in various subgroups stratified for gender, age, ethnicity, socioeconomic status, comorbidity, and fat distribution.
- \* The effects of surgical treatment of mothers on their developing fetuses and whether it is safe for women to get pregnant after such operations must be determined.
- \* Better statistical reporting of surgical results is urgently needed for clearer assessments of outcomes.
- \* In addition, more effective alternate forms of weight-reduction therapy need to be developed and evaluated. Specifically, the following needs were identified:
- \* Development of more effective behavioral techniques for producing long-term changes in eating and exercise behaviors is needed. Further, there is a need to determine the types of behavioral strategies that are most effective in treating various subgroups of overweight populations and to define the roles of physician, clinical psychologist, and dietitian in the behavioral approach.
- \* Research is needed on how best to maintain weight reduction for a long term, with clarification of the roles of reduced caloric intake and increased energy expenditure (e.g., exercise). Consideration should be given to use of combined approaches, for example, low-calorie diets, behavior therapy, and drug therapy.
- \* The potential for pharmacologic therapy needs further evaluation. The possibility that long-term drug therapy can be used successfully deserves exploration. Especially important are efficacy of therapy, long-term safety, and enhanced efficacy of drugs in combination.
- \* One of the key problems in evaluating the current reports of case series in surgical therapy is the lack of standards for comparison. The present practice is to compare postoperative indicators of comorbidity to the same patient's own preoperative status. Although this approach may give some useful information on short-term effects of surgical therapy, it is insufficient for evaluation of long-term effects and of survival. An alternative approach for evaluating surgical therapy is to compare levels of morbidity and mortality in the surgical group with an appropriate comparison group. The establishment of a meaningful comparison group presents a challenge to future research.
- \* Evaluation of the psychosocial changes that occur during weight reduction is needed. Standardized, reliable, and valid questionnaires and structured interviews should be developed to evaluate the patient's expectations about changes and the psychosocial changes they actually experience during weight loss and maintenance.

## **Consensus Development Panel**

### **Scott M. Grundy, M.D., Ph.D.**

Conference and Panel Chairperson

Director

Center for Human Nutrition

University of Texas Southwestern Medical Center at Dallas

Dallas, Texas

### **Jeremiah A. Barondess, M.D.**

President  
The New York Academy of Medicine  
Adjunct Professor of Clinical Medicine  
Cornell University Medical College  
New York, New York

**N.J. Bellegie, M.D., F.A.C.S., D.A.B.S.**  
General Surgeon (Retired)  
Surgical Clinic  
Waco, Texas

**Hans Fromm, M.D.**  
Professor of Medicine  
Director  
Division of Gastroenterology and Nutrition  
The George Washington University  
Washington, D.C.

**Frank Greenway, M.D.**  
Associate Clinical Professor of Medicine  
UCLA School of Medicine  
Marina Del Rey, California

**Charles H. Halsted, M.D.**  
Chief  
Division of Clinical Nutrition and Metabolism  
University of California at Davis  
Davis, California

**Edward J. Huth, M.D.**  
Editor Emeritus  
Annals of Internal Medicine  
Philadelphia, Pennsylvania

**Shiriki K. Kumanyika, Ph.D., R.D., M.P.H.**  
Associate Professor of Nutritional Epidemiology  
Nutrition Department and Center for Biostatistics and Epidemiology  
The Pennsylvania State University  
University Park, Pennsylvania

**Efrain Reisin, M.D., F.A.C.P.**  
Professor of Medicine  
Louisiana State University School of Medicine  
New Orleans, Louisiana

**Marie K. Robinson, Ph.D.**  
Associate Dean

College of Associated Health Professions  
University of Illinois at Chicago  
Chicago, Illinois

**June Stevens, Ph.D., R.D.**

Nutritional Epidemiologist  
Department of Biostatistics, Epidemiology, and Systems Science  
Medical University of South Carolina  
Charleston, South Carolina

**Patrick L. Twomey, M.D.**

Associate Professor of Surgery  
University of California at Davis/East Bay  
Martinez, California

**Milton Viederman, M.D.**

Professor of Clinical Psychiatry  
Cornell University Medical College  
Director, Consultation Liaison Service  
The New York Hospital  
New York, New York

**William Zipf, M.D.**

Professor  
Department of Pediatrics and Physiology  
Ohio State University  
Children's Hospital  
Columbus, Ohio

## **Speakers**

**Peter N. Benotti, M.D.**

"Effect of Surgically Induced Weight Reduction on Heart Disease and Hypertension"  
Chief  
General Surgery  
New England Deaconess Hospital  
Boston, Massachusetts

**George A. Bray, M.D.**

"Pathophysiology of Severe Obesity"  
"Pharmacologic Intervention and Control of Food Intake for Treatment of Severe Obesity"  
Professor and Executive Director  
Pennington Biomedical Research Center  
Louisiana State University  
Baton Rouge, Louisiana

**Robert E. Brolin, M.D.**

"Critical Analysis of Results: Weight Loss and Quality of Data"

Professor of Surgery  
University of Medicine and Dentistry of New Jersey  
Robert Wood Johnson Medical School  
New Brunswick, New Jersey

**Jorge Calles, M.D.**

"Nonsurgical Treatment of Severe Obesity"

Assistant Professor of Medicine  
University of Vermont  
Burlington, Vermont

**Ilan Charuzi, M.D.**

"Bariatric Surgery in Morbidly Obese Sleep Apnea Patients: Short- and Long-Term Followup"

Chief of Surgical Services  
Head  
Full Professor of Surgery  
Department of Surgery "C"  
Faculty of Health Sciences  
Medical School  
Ben-Gurion University of the Negev  
Beer Sheva  
ISRAEL

**Graham A. Colditz, M.D., Dr.P.H., M.B.B.S.**

"Economic Costs of Severe Obesity"

Assistant Professor of Medicine  
Channing Laboratory  
Harvard Medical School  
Boston, Massachusetts

**John J. Gleysteen, M.D.**

"Results of Surgery: Long-Term Effects on Hyperlipidemia"

Associate Professor of Surgery  
University of Alabama at Birmingham  
Birmingham, Alabama

**D. Michael Grace, M.D., D.Phil., F.R.C.S.(C), F.A.C.S.**

"Gastric Restriction Procedures for the Treatment of Severe Obesity"

Professor of Surgery  
University of Western Ontario  
University Hospital  
London, Ontario  
CANADA

**John D. Halverson, M.D.**

"Metabolic Risk of Obesity Surgery and Long-Term Followup"

Associate Professor of Surgery  
Washington University School of Medicine  
St. Louis, Missouri

**John G. Kral, M.D., Ph.D.**

"Overview of Surgical Techniques for Treating Obesity"

"Assessment of Quality of Life Before and After Surgery for Severe Obesity"

Professor of Surgery  
Health Science Center at Brooklyn  
State University of New York  
Brooklyn, New York

**Robert J. Kuczmarski, Ph.D., R.D.**

"Prevalence of Overweight and Weight Gain in the United States"

Nutritionist/Epidemiologist  
National Center for Health Statistics  
Hyattsville, Maryland

**John H. Linner, M.D.**

"Reoperative Surgery--Indications, Efficacy, and Long-Term Followup"

Clinical Professor  
Department of Surgery  
University of Minnesota  
Surgical Practice at Metropolitan Mount Sinai  
Medical Center  
Minneapolis, Minnesota

**Edward E. Mason, M.D., Ph.D.**

"Perioperative Risks and Safety of Surgery in Severe Obesity"

Professor and Chairman of General Surgery  
University of Iowa Hospitals and Clinics  
Iowa City, Iowa

**J. Patrick O'Leary, M.D.**

"Gastrointestinal Malabsorptive Procedures"

Professor and Chairman  
Department of Surgery  
Louisiana State University Medical School  
New Orleans, Louisiana

**Theodore N. Pappas, M.D.**

"Physiological Implications of Gastrointestinal Surgery"

Assistant Professor of Surgery  
Duke University Medical Center

Durham, North Carolina

**Walter J. Pories, M.D.**

"Surgical Treatment of Obesity and Its Effect on Diabetes: 10-Year Followup"

Professor and Chairman

Department of Surgery

East Carolina University School of Medicine

Greenville, North Carolina

**Lars Sjöström, M.D., Ph.D.**

"Morbidity and Mortality of Severely Obese Subjects"

"Mortality of Obese Subjects"

Associate Professor of Medicine

University of Göteborg

Sahlgren's Hospital

Göteborg

SWEDEN

**Albert J. Stunkard, M.D.**

"Psychological Aspects of Morbid Obesity"

Professor of Psychiatry

University of Pennsylvania

Philadelphia, Pennsylvania

**Harvey J. Sugerman, M.D.**

"Gastric Bypass"

"Long-Term Effects on Respiratory Function"

David M. Hume Professor of Surgery

Medical College of Virginia

Virginia Commonwealth University

Richmond, Virginia

**Rena R. Wing, Ph.D.**

"Behavioral Treatment of Severe Obesity"

Associate Professor of Psychiatry, Psychology, and Epidemiology

University of Pittsburgh School of Medicine

Western Psychiatric Institute and Clinic

Pittsburgh, Pennsylvania

**Planning Committee**

**Benjamin T. Burton, Ph.D.**

Planning Committee Cochairperson

Associate Director for Disease Prevention and

Technology Transfer

National Institute of Diabetes and Digestive and Kidney Diseases

National Institutes of Health  
Bethesda, Maryland

**Van S. Hubbard, M.D., Ph.D.**

Planning Committee Cochairperson  
Director  
Nutritional Sciences Branch  
National Institute of Diabetes and Digestive and Kidney Diseases  
National Institutes of Health  
Bethesda, Maryland

**Richard L. Atkinson, M.D.**

Professor of Internal Medicine  
Associate Chief of Staff for R & D  
Hampton Veterans Administration Medical Center  
Eastern Virginia Medical School  
Medical Research Service  
Department of Veterans Affairs Medical Center  
Hampton, Virginia

**Darla E. Danford, M.P.H., D.Sc.**

Director  
Division of Nutrition Research Coordination  
Office of the Director  
National Institutes of Health  
Bethesda, Maryland

**Jerry M. Elliott**

Program Analyst  
Office of Medical Applications of Research  
National Institutes of Health  
Bethesda, Maryland

**John H. Ferguson, M.D.**

Director  
Office of Medical Applications of Research  
National Institutes of Health  
Bethesda, Maryland

**James N. Fordham, M.A.**

Writer and Editor  
National Institute of Diabetes and Digestive and Kidney Diseases  
National Institutes of Health  
Bethesda, Maryland

**Willis R. Foster, M.D., M.S.**

Senior Staff Physician

Office of Disease Prevention and Technology  
Transfer  
National Institute of Diabetes and Digestive and Kidney Diseases  
National Institutes of Health  
Bethesda, Maryland

**Gilman D. Grave, M.D.**

Chief  
Endocrinology, Nutrition, and Growth Branch  
National Institute of Child Health and Human Development  
National Institutes of Health  
Bethesda, Maryland

**Scott M. Grundy, M.D., Ph.D.**

Conference and Panel Chairperson  
Director  
Center for Human Nutrition  
University of Texas Southwestern Medical Center at Dallas  
Dallas, Texas

**William H. Hall**

Director of Communications  
Office of Medical Applications of Research  
National Institutes of Health  
Bethesda, Maryland

**William R. Harlan, M.D.**

Director  
Division of Epidemiology and Clinical Applications  
National Heart, Lung, and Blood Institute  
National Institutes of Health  
Bethesda, Maryland

**Jules Hirsch, M.D.**

Sherman Fairchild Professor  
Rockefeller University  
Senior Physician  
Rockefeller University Hospital  
New York, New York

**Jay H. Hoofnagle, M.D.**

Director  
Division of Digestive Diseases and Nutrition  
National Institute of Diabetes and Digestive and Kidney Diseases  
National Institutes of Health  
Bethesda, Maryland

**John G. Kral, M.D., Ph.D.**  
Professor of Surgery  
Department of Surgery  
Health Sciences Center at Brooklyn  
State University of New York  
Brooklyn, New York

## **Conference Sponsors**

**National Institute of Diabetes and Digestive and Kidney Diseases**  
Phillip Gorden, M.D. Director

**NIH Office of Medical Applications of Research**  
John H. Ferguson, M.D. Director

## Works Cited

- Ackerman, N. (1999) *Fat No More: The Answer for the Dangerously Overweight*. New York: Prometheus Books.
- Adato, A. and Espinoza, G. (2003) 'Weighing the Risks', *People* March 10, 2003: 137-140.
- Allison, D. and Saunders, S. (2000) 'Obesity in North America: An Overview', *Medical Clinics of North America* 84(2): 305-332.
- American Society for Bariatric Surgery (2001) 'Rationale for the Surgical Treatment of Morbid Obesity' Website of the American Society for Bariatric Surgery, URL (consulted April 2003): <http://www.asbs.org/html/rationale/rationale.html>.
- American Society for Bariatric Surgery (2000) 'SAGES/ASBS Guidelines for Laparoscopic and Conventional Surgical Treatment of Morbid Obesity', Website of American Society for Bariatric Surgery, URL (consulted April 2003): [http://www.asbs.org/html/lab\\_guidelines.html](http://www.asbs.org/html/lab_guidelines.html).
- American Society of Plastic Surgeons (2003) 'More Men Considering Plastic Surgery', American Society of Plastic Surgeons Survey Reports Press Releases, February 27, 2003, URL (consulted April 2003): [http://www.plasticsurgery.org/news\\_room/press\\_releases/More-Men-Considering-Plastic-Surgery.cfm](http://www.plasticsurgery.org/news_room/press_releases/More-Men-Considering-Plastic-Surgery.cfm).
- Battle, E. and Brownell, K. (1996) 'Confronting a Rising Tide of Eating Disorders and Obesity: Treatment vs. Prevention and Policy', *Addictive Behaviors* 21(6): 755-765.
- Boasten, M. (2000) *Weight Loss Surgery: Understanding & Overcoming Morbid Obesity – Life Before, During & After Surgery*. Ohio: FBE Service Network.
- Bordo, S. (1993) *Unbearable Weight: Feminism, Western Culture, and the Body*. Berkeley: University of California Press.
- Brumberg, J. (1997) *The Body Project: An Intimate History of American Girls*. New York: Vintage Books.
- Canguilhem, G. (1978) *On the Normal and the Pathological*. Translated by Carolyn R. Fawcett. Dordrecht, Holland: D. Reidel.
- Choban, P., Jackson, B., Popalawski, S. and Bistolarides, P. (2000) 'Bariatric Surgery for Morbid Obesity: Why, who, when, how, where, and then what?', *Cleveland Clinic Journal of Medicine* 69(7): 897-903.

Columbia University Department of Surgery. (last update unknown) 'Obesity Surgery' Obesity MD, URL (consulted April 2003): <http://www.obesitymd.org/index.html>.

Cooter, R. and Pumfrey, S. (1994) 'Science in Popular Culture', *History of Science*, Vol. 3, Part 3, No. 97: 237-267.

Courreges, P. (2003) 'Bill would aid obese. Insurance industry against idea', *The Advocate of Baton Rouge* February 3, 2003: 1-B.

Dam, J. and Wihlborg, U. (2001) 'Weigh to Go!', *People* January 15, 2001: 86-93.

Donahue, P. (2002) 'Donahue for November 29, 2002', MSNBC, television transcript.

Dreger, A. (1998) *Hermaphrodites and the Medical Invention of Sex*. Cambridge, MA: Harvard UP.

Edgley, C. and Brissett, D. (1990) 'Health Nazis and the Cult of the Perfect Body: Some Polemical Observations', *Symbolic Interactions* 13(2): 257-279.

Ethicon Endo-Surgery, Inc. (2001-2002) 'Weight Loss Surgery Info', URL (consulted April 2003): <http://www.weightlossurgeryinfo.com/>.

Fisher, B. and Schauer, P. (2000) 'Medical and surgical options in the treatment of obesity', *The American Journal of Surgery* 184: 9S-16S.

Giddens, A. (1991) *Modernity and Self-Identity: Self and Society in the Late Modern Age*. Stanford: Stanford UP.

Gieryn, T. (1999) *Cultural Boundaries of Science: Credibility on the Line*. Chicago: Chicago UP.

Goodman, E. (last update unknown) 'Surgery for Severe Obesity: Drastic Treatment for a 21<sup>st</sup> Century Epidemic', *Healthology*, ABSNEWS.COM, URL (consulted April 2003): [http://www.healthology.com/focus\\_article.asp?f=beyond\\_dieting&c=obesitysurgery2](http://www.healthology.com/focus_article.asp?f=beyond_dieting&c=obesitysurgery2).

Guthrie, C. (2000) 'Bariatric Surgery: A Radical Obesity Fix', *WebMDHealth*, December 18, 2000, URL (consulted April 2003): [http://mywebmd.com/content/article/14/1689\\_51239](http://mywebmd.com/content/article/14/1689_51239).

Haiken, E. (1997) *Venus Envy: A History of Cosmetic Surgery*. Baltimore: The Johns Hopkins UP.

Halls, S (2003) 'About arithmetic formulas for calculating ideal body weight', Paper published on personal website, URL (consulted April 2003): <http://www.halls.md/ideal-weight/devine.htm>

Haraway, D. (2002) 'Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective' in J. Kourany (ed.) *The Gender of Science*. New Jersey: Prentice Hall.

Hausman, B. (1995) *Changing Sex: Transsexualism, Technology, and the Idea of Gender*. Durham, NC: Duke UP.

Hopkins, P. (ed.) (1998) *Sex/Machine: Readings in Culture, Gender, and Technology*. Bloomington: Indiana UP.

Institute of Medicine (1995) *Weighing the Options: Criteria for Evaluating Weight-Management Programs*. Washington: National Academy Press.

Jacob, J. and Jackson, C. (2002) 'Weighing options: The business of helping obese patients', *Amednews.com*, May 20, 2002, URL (consulted April 2003): [http://www.ama-assn.org/sci-pubs/amnews/pick\\_02/biba0520.htm](http://www.ama-assn.org/sci-pubs/amnews/pick_02/biba0520.htm).

Kessler, S. (1998) 'The Medical Construction of Gender: Case Management of Intersex Infants', in P. Hopkins (ed.) *Sex/Machine: Readings in Culture, Gender, and Technology*, pp: 241-260. Bloomington: Indiana UP.

Klein, R. (1996) *Eat Fat*. New York: Vintage Books.

Kremen, A. and Linner, J. (1954) 'An Experimental Evaluation of the Nutritional Importance of Proximal and Distal Small Intestine,' *Annals of Surgery* 140: 439-48.

Kuczmarski, R. and Flegal, K. (2000) 'Criteria for definition of overweight in transition: background and recommendations for the United States', *American Journal of Clinical Nutrition*, Vol. 72, No. 5, pp. 1074-1081. URL (consulted May 2003): <http://www.ajcn.org/cgi/content/full/72/5/1074>

LaFlamme, L. (2002) 'The Million Pound March for Weight-Loss Surgery', *Canada AM*, CTV Television, September 23, 2002.

Macgregor, A. (2002) 'The Story of Surgery for Obesity', Website of American Society for Bariatric Surgery, URL (consulted April 2003): <http://www.asbs.org/html/story/chapter1.html>.

Morgan, K. (1998) 'Women and the Knife: Cosmetic Surgery and the Colonization of Women's Bodies', in P. Hopkins (ed.) *Sex/Machine: Readings in Culture, Gender and Technology*, pp. 261-285. Bloomington: Indiana UP.

National Association to Advance Fat Acceptance (last update unknown) 'What is NAAFA?', Website of NAAFA, URL (captured April 2003): <http://www.naafa.org/documents/brochures/naafa-info.html#whatis>.

National Center for Chronic disease Prevention and Health Promotion (2001) 'Obesity and Overweight: A Public Health Epidemic', CDC, November 16, 2001, URL (consulted April 2003): <http://www.cdc.gov/nccdphp/dnpa/obesity/epidemic.htm>.

National Institutes of Health (1991) 'Gastrointestinal surgery for severe obesity', Proceedings of a National Institutes of Health Consensus Development Conference, March 25-27, 1991, URL (consulted April 2003): [http://consensus.nih.gov/cons/084/084\\_statement.htm](http://consensus.nih.gov/cons/084/084_statement.htm).

National Institutes of Health – National Heart, Lung, and Blood Institute 'Body Mass Index Table,' URL (consulted May 2003): [http://www.nhlbi.nih.gov/guidelines/obesity/bmi\\_tbl.htm](http://www.nhlbi.nih.gov/guidelines/obesity/bmi_tbl.htm)

Nestle, M. and Jacobson, M. (2000) 'Halting the Obesity Epidemic: A Public Health Policy Approach', Public Health Reports 115: 12-23.

Newby, D. (2000) 'The Fat Tax: Public Policy Goes Belly Up', September 14, 2000, URL (consulted April 2003): <http://www.sutherlandinstitute.org/point/091400.html>.

O'Neill, P. (2002) 'As Americans get fatter, weight loss surgery gains popularity', The Oregonian, December 9, 2002: C01.

Patton, M. (2002) Qualitative Research & Evaluation Methods, 3<sup>rd</sup> Ed., Thousand Oaks: Sage.

Pool, R. (2001) Fat: Fighting the Obesity Epidemic. New York: Oxford UP.

Radford, B. (2003) 'Weight-loss surgery is not without risks', New Bern Sun Journal Online, February 9, 2003, URL (consulted April 2003): <http://www.newbernsunjournal.com/Details.cfm?StoryID=7125>.

Roberts, D. (1997) Killing the Black Body: Race, Reproduction, and the Meaning of Liberty. New York: Vintage Books.

Saunders, W. (2002) 'Health Library at MerckSource', URL (consulted April 2003): [http://www.mercksource.com/pp/us/cns/cns\\_health\\_library\\_frame.jspzQzpgzEz/pp/us/cns/cns\\_hl\\_dorlands.jspzQzpgzEzzSzppdocszSzuszSzcommonzSzdorlandzSzdorlandzSzmd\\_i\\_06zPzhtm](http://www.mercksource.com/pp/us/cns/cns_health_library_frame.jspzQzpgzEz/pp/us/cns/cns_hl_dorlands.jspzQzpgzEzzSzppdocszSzuszSzcommonzSzdorlandzSzdorlandzSzmd_i_06zPzhtm).

Schwanke, J. (2001) 'Reducing the Obesity Epidemic: What Works and What Doesn't' WebMD Medical News, March 1, 2001, URL (consulted April 2003): <http://aolsvc.health.webmd.aol.com/content/article/1728.73816>.

Sedgwick, E. (1995) 'Epidemics of the Will' in Crary, J. and S. Kwinter (eds.) Incorporations, pp: 582-595. Cambridge: MIT Press.

Spotlight Health (2002) 'The History of the Surgical Treatment of Obesity', Website of Spotlight Health, URL (consulted April 2003):  
[http://www.spotlighthealth.com/morbid\\_obesity/weight\\_loss\\_surgery/history.html](http://www.spotlighthealth.com/morbid_obesity/weight_loss_surgery/history.html).

Spotlight Health (2003) 'Morbid Obesity', Website of Spotlight Health, URL (consulted April 2003): [http://www.spotlighthealth.com/morbid\\_obesity/mo/mo/htm](http://www.spotlighthealth.com/morbid_obesity/mo/mo/htm).

Starr, P. (1982) *The Social Transformation of American Medicine*. New York: Basic Books.

Stinson, K. (2001) *Women and Dieting Culture: Inside a Commercial Weight Loss Group*. New Jersey: Rutgers UP.

Stone, S. (1998) 'The Empire Strikes Back: A Posttranssexual Manifesto', in P. Hopkins (ed.) *Sex/Machine: Readings in Culture, Gender, and Technology*, pp. 322-341. Bloomington: Indiana UP.

Terry, J. and Urla, J. (1995) *Deviant Bodies*. Bloomington: Indiana UP.

United States National Institute of Diabetes & Digestive & Kidney Diseases of the National Institutes of Health (last update unknown) 'Your Digestive System and How It Works', Website of NIDDK, URL (consulted April 2003):  
<http://www.niddk.nih.gov/health/digest/pubs/digesyst/newdiges.htm>.

U.S. Department of Health and Human Services (2001) 'The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity', Website of USDHHS, December 13, 2001, URL (consulted April 2003): <http://www.hhs.gov/news>.

Wann, M. (1998) *FAT!SO?: Because you DON'T have to APOLOGIZE for your size!* Berkeley: Ten Speed Press.

Weight-Control Information Network of the United States National Institute of Diabetes & Digestive & Kidney Diseases of the National Institutes of Health (2001) 'Gastrointestinal Surgery for Severe Obesity', Website of NIDDK, URL (consulted April 2003): <http://www.niddk.nih.gov/health/nutrit/pubs/gastric/gastricsurgery.htm#whatare>.

Weinberg, A. (1966) 'Can Technology Replace Social Engineering?' *University of Chicago Magazine*, LIX, October 1966: 6-10.

Wilson, C., Kleber, M. and Spotlight Health (2001) *Gut Feelings: From Fear and Despair to Health and Hope*. Carlsbad: Hay House.

Woodward, B. (2001) *A Complete Guide to Obesity Surgery: Everything you need to know about weight loss surgery and how to succeed*. Trafford.

Woodward, E. (1991) 'History of Surgery for Obesity', 1991 Medical Section Proceedings: Sixteenth Annual Meeting of the American Council of Life Insurance.

## **Donna Marie Augustine**

### Curriculum Vita

Donna earned a S.B. in Molecular Biology from the Massachusetts Institute of Technology (MIT) in 1997. She will receive an M.S. in Science and Technology Studies from Virginia Polytechnic Institute and State University (Virginia Tech) in 2003. Donna plans to continue with her research on the topic of weight loss surgery and American obesity through the Ph.D. program in Science and Technology Studies at Virginia Tech.