# VIRGINIA COOPERATIVE EXTENSION SERVICE





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Lesson 5
Diet, Exercise, and Behavior Modification
(Weight Control by Mail)

Dear Weight Control Member:

Thanks for returning the assignments. I read everything you return and make written comments. If I didn't return your RECALL computer printout last week, it's attached to this week's lesson.

From the beginning of these lessons, I have stressed the importance of eating a nutritious and varied diet. In Lesson 1 you calculated the number of calories you could eat to lose 1 or 2 pounds each week. This program does not recommend that you restrict calories below the 1200 calorie-plan. (It is difficult to have an adequate intake of nutrients below this level.)

In this lesson I want to concentrate on ways in which you can change your eating habits. Habits are learned. Therefore, they can be unlearned. New habits can become permanently established. Let me help you!

#### How to Begin

- Read and re-read the enclosed lesson--Behavior Modification I Why do I overeat?
- 2. To help you identify environmental cues which trigger overeating and over-fatness, I asked you to keep a record of your eating habits for 7 days last week.
- 3. Now at the end of 7 days I want you to analyze the record. Do you see an eating pattern? For example, do you eat alone? Do you eat in more than one place? Do you engage in other activities while eating? Are foods easy to get and readily available for eating? Do you skip breakfast or eat most of the food for the day after 4 p.m.? Do you stay up late at night and snack before going to bed? Have you developed regular hours for eating and sleeping? How do you feel when you eat—happy, bored, angry, depressed?
- 4. When you have studied your eating habits, complete the enclosed form—— Analyze Your Eating Habits (348-213)—and mail it to me. I will look it over.

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If you will study this lesson and do the suggested activities, I believe it will help you to identify the environmental influences which lead to overeating.

Next week the topic is Behavior Modification II--Changing Eating Habits. In this lesson I will share with you some ways in which you may modify or change the environmental cues which influence eating behavior.

Call me if you need any assistance!

Sincerely,

Extension Agent

### 1. Behavior Modification I--Why Do I Overeat ?

The objectives of this lesson are to help you: (1) identify conditions or environmental influences which lead to overeating, and (2) evaluate and reform eating habits for a lifetime of weight reduction maintenance.

Most authorities agree that obesity is the result of underexercising, overeating, or both. What situations cause people to behave inappropriately by eating more calories than are needed for energy balance and weight maintenance? What social and physical environmental forces lead to the problematic behavior of overeating and underexercising? Authorities believe that the control of overeating can be accomplished by modification of the environment and/or our behavioral responses.

- a. Eating Habits. Most of our habits are developed to satisfy needs. They are formed and become established through practice and satisfaction with family, friends, and social or cultural groups, and by physical interaction with the world around us. Eating habits are some of the most difficult habits to change. This is true since eating satisfies emotional needs as well as physiologic or hunger needs.
- b. Environmental Cues. The eating patterns or habits of the obese differ from those of nonobese persons. Environmental cues, rather than actual hunger, tend to determine the eating habits of the obese. Obese persons are apparently unable to distinguish between internal hunger cues and external environmental cues. Let's take a closer look at some of these environmental cues which influence eating behavior.
  - 1) Emotional Cues. Emotions affect the eating behavior of man. Obese persons have been found to eat more and the nonobese less when negative experiences occur. Obese persons are likely to eat more when upset or under emotional stress, less when they are socially accepted or happy, and the least when in a neutral state. The obese find that eating reduces the discomfort of bad experiences. Conversely, normal weight persons eat less when under stress, more when in a neutral state, and the most when socially accepted or happy. Thus, eating behavior does not appear to give comfort and support to the normal weight person.
  - 2) Perceived Time Cues. Meal hours are strongly learned cues to illicit eating behavior. Most Americans expect that four to six hours after eating a meal they will eat the next one. However, obese persons often have less conventional eating patterns than do persons of normal weight. The obese are more likely to skip breakfast, eat between meals, miss lunch occasionally, and eat most of the food for the day after 4 p.m. Eating a large portion of the day's food intake at one time causes a caloric overload. When so many calories are eaten at one sitting, only a portion of the calories can be expended for immediate energy needs by the body for basal metabolism and for activity. The calories not expended are converted to and stored as fat. Research has indicated an increased rate of activity of the lipid (fat) synthesizing enzymes in adipose tissue (fat stores of the body) soon after an animal is exposed to infrequent but large feedings. Therefore, if frequent small meals prove to be effective diet therapy for obese humans, the fat loss will be slow until the rate of fat synthesizing enzymes has decreased.

It is recommended that the eating habits of the obese should be repatterned to include at <u>least</u> three meals a day. This pattern of eating will also ensure that the person losing weight will not get very hungry and be tempted to snack on high calorie foods. More frequent, smaller feedings are to be encouraged if permitted by the person's occupation and work schedule. However, the eating pattern should be <u>planned</u> and maintained. Eating only <u>planned</u> foods at <u>planned</u> times can assist obese persons to modify their response to environmentally cued eating habits.

- 3) Food Cues. Studies have indicated that obese persons like good food. The sight, smell, taste, and availability of food, as well as the sight of others eating are more apt to trigger eating behavior in the obese than in the nonobese. The taste and quality of food as perceived by the obese are environmental cues influencing the amount of food eaten. Monotonous, dull food appears to decrease the appetite of the obese. Tasty food of high quality tends to increase the appetite. Food cues may be either real food or reminders of food such as television, radio, newspaper, and magazine advertisements.
- 4) Place Cues. Eating may be associated with certain rooms of the house. Eating may be limited to the kitchen and dining room or it may extend to the living room, bedroom, and office. Just being in one of these rooms may cue one to eat.
- 5) Activity Cues. Eating while performing an activity may cause one to become cued to eat while engaging in that activity. For example, eating while watching television may soon become a habit so that watching television automatically stimulates eating.
- 6) Feedback. Obese persons tend to eat less if they are provided with feedback about how much they have eaten. Feedback provides external information or cues to either continue or discontinue eating, depending upon the goal set for consumption. One study revealed that obese subjects drank less of a milk shake mixture when they could see how much they drank than when they could not monitor their intake. This again demonstrates that external cues, such as feedback on the amount consumed, will have a more direct effect upon the amount eaten by obese persons than the internal cue of hunger.
- 7) Social Monitoring. Inhibitory social monitoring of eating behavior by other people seems to be a stronger cue to discontinue eating to the obese than the external cue to eat initiated by the sight and availability of food.

## 2. Summary

a. Analyzing Your Food Record. Obese individuals seem to be more aware of external cues concerning eating behavior than internal cues of hunger. Some external stimuli will illicit behavior other than eating and may successfully compete with cues favoring eating behavior. By manipulation of these environmental cues, the obese person may find successful ways to lose weight and to maintain weight loss.

Get out the worksheet "Record of Eating Habits" which we sent to you last week and on which you have been recording your food intake for the last week. Use the worksheet "Analyze Your Eating Habits" (348-213) which is attached to this lesson as a guide to help you analyze your recorded food intake. Can you identify certain external cues such as time of day, place, or activity in which overeating tended to occur? Do you see any particular foods which might be causing you problems? Do you skip meals and then tend to "splurge" after dinner? Do you eat more when you're bored?

Choose one environmental cue which you recognize as causing you a problem and think of ways in which you could improve your eating habits by not responding to this environmental cue or responding in a different fashion. Please return the form "Analyze Your Eating Habits" (348-213) to me. I will go over it and see if I can make suggestions to improve your habits. I will return it to you.

I am enclosing "Record of Eating Habits" (348-212) again this week. Record your food intake each day for the next week. We will analyze your habits again after seven days.

<ul><li>b. Objectives C</li></ul>	hecklist
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You should now be able to:

1. Identify conditions or environmental influences which lead to overeating.

#### c. Activities Checklist

- 1. Keep up the diet plan and weight graph!
- 2. Analyze Your Eating Habits (348-213) RETURN
- 3. Keep Record of Eating Habits (348-212) KEEP for another week