As We Age: Nutrition for Senior Adults

Kathleen M. Stadler and Pamela B. Teaster*

As We Age, we realize that aging started the day we were born. Our society is living longer than ever before. In Virginia, one out of every three older adults is over the age of 74.** Throughout our entire life course our minds and our bodies constantly undergo changes. When we consider aging as affecting us on many levels, we are exploring aging using a biopsychosocial lens.

For example, on a biological level, our major organs—heart, lungs, eyes, ears, and brain—lose a portion of their functioning ability as we grow older. On a psychological level, changes in our short-term memory may decrease our ability to recall information that we have just heard. Aging also affects our social environment. Upon retirement, friends may elect to move to a warmer climate or nearer to family or friends. Friendship patterns may change from those centered around a work life to those centered around religion, travel, clubs or organizations, or volunteer activities.

Not only does aging affect our bodies, our minds, and our relationships, it also affects our nutritional status. This publication highlights nutrition and wellness practices to help you maintain a healthy, productive lifestyle—lifelong goals for everyone.

Remember that most age-related changes are gradual, and there is considerable variation in how older adults are affected by them. As a rule, we are well equipped to handle our age-related changes.

Aging Facts
- The young-old are between the ages of 65-80.
- The oldest-old are ages 81 and older.
- In 2030, the U.S. Census Bureau projects that the number of older adults will exceed the number of children.
- In 2030, 21% of the population will be made up of people 65 and older.

** The Virginia Department for the Aging (May 1996), Statistical Profile of Older Virginians. For the purpose of this report, an older adult was any person age 60 or older.

* Assistant Professor & Extension Specialist, Nutrition, Dept. of Human Nutrition, Foods and Exercise; Assistant Professor & Extension Specialist, Gerontology, Dept. of Human Development, Virginia Tech; respectively.
Eat The Food Guide Pyramid Way

The Food Guide Pyramid is a general guideline to help children, youth, and adults eat a well-balanced diet. It is based on the Dietary Guidelines for Americans. Everyone should eat at least the minimum servings from each group of the Food Guide Pyramid. This gives you a variety of foods that are good sources of protein, vitamins, minerals, and fiber. Also, research shows that a variety of foods have other naturally occurring ingredients, such as antioxidants and phytochemicals. These ingredients may decrease the risk of cancer and heart disease.

As you age, your lifestyle may be less active; you may sit more and perform less vigorous exercises or physical labor. Also, your body's metabolism may be less efficient or slower. These lifestyle and metabolism changes may cause weight gain and less efficient absorption of nutrients. Select more nutrient-dense foods with lower amounts of fat and sugar (empty calories). If you are having problems losing weight, limit your fat or sugar intake. Eat a variety of foods that are good sources of protein, vitamins, minerals, and fiber.

The following Food Guide Pyramid is recommended for adults aged 50+. Use the Food Guide Pyramid to help plan your meals and snacks. Specific nutritional recommendations are based on age, gender, health status, and physical activity levels.

Recently, researchers from Tufts University developed a Food Guide Pyramid to more accurately represent the calorie and special nutrient needs for healthy persons over the age of 70. The new Modified Food Guide Pyramid for 70+ Adults includes the following changes:

1. Eat at least the minimum number of servings for each food group in the Food Guide Pyramid. Eat a variety of foods that are good sources of protein, vitamins, minerals, and fiber. It is important to eat nutrient dense foods with calories. Eating fewer foods or calories may be due to poor appetite, less activity, or medical conditions, which may result in weight loss.

2. Eat at least three servings of calcium-rich foods. Calcium and vitamin D are important to maintain bone health.

3. Drink eight cups of water as the base of the 70+ Pyramid. This is needed because of higher intake of medications and to prevent dehydration and constipation.

4. Eat fiber-rich foods from grains, fruits, vegetables, dried beans, and nuts.

5. Eat fortified foods with vitamin B12, calcium, and vitamin D. Consult a doctor or dietitian, if you need a dietary supplement.
Eat A Fiber-Rich Diet
Fiber (F) or roughage is important to have a healthy digestive system and proper bowel function. Constipation is a problem for many aging adults. Choose a variety of high-fiber foods—vegetables, fruits, beans, nuts, and whole-grain products—drink plenty of water and be physically active to stay regular. Eat at least one high fiber food (pears, dried beans and peas, corn, dates, 100% bran cereals, or potatoes with skins) every day to help you get 20-35 grams of fiber each day.

Find The Vitamins
You can get about 20 grams of dietary fiber if you choose at least:

- **3 Servings a Day of Vegetables**
  Examples: Broccoli, Sweet Potatoes, Kidney Beans, Greens, or Carrots

- **2 Servings a Day of Fruits**
  Examples: Apple, Banana, Orange, Pear, or Raisins

+ **3 Servings a Day of Whole-Grain Foods**
  Examples: Oatmeal, Barley, Whole Grain Muffins, Bread, or Cereals

From the Fruit and Vegetable examples, draw a circle around the foods that are good sources of Vitamin A. Draw a box around the foods that are good sources of Vitamin C. Remember that some foods are good sources for both vitamins! All of these foods are good sources of fiber, too.

Drink Enough Fluids. Water or other liquids are needed to avoid and prevent constipation and dehydration. Drink six to eight (8-ounce) glasses of fluid every day — water or other liquids (100% juices, milk, beverages, or soup). Limit the amount of caffeinated drinks (coffee, tea, and soda) and be sure to drink at least 2 glasses of water per day. If you are taking medications, you need more water. Throughout the day take water breaks, or in the morning, fill up a glass to remind you to drink water.

Eat Calcium-Rich Foods
Calcium and Vitamin D are essential to maintain strong bones and teeth. After age 50, more calcium or 1,200 milligrams are needed to prevent a disease called osteoporosis. As you age, minerals in your bones are lost and bones may get thinner. Protect your bones by choosing calcium-rich foods, such as milk, cheese, yogurt, greens, broccoli, sardines, canned salmon with bones, dried beans and peas, tofu, and calcium-fortified foods. If you have problems digesting milk,

- Drink lactose reduced milk.
- Eat yogurt or cheese, where the lactose has been broken down,
- Drink a smaller amount of milk or buttermilk at a time,
- Eat other calcium-rich foods that are not milk-based.

Vitamin D helps the absorption of calcium. It is found in fluid milk, dried milk products, and fortified cereals. Your body can make its own Vitamin D when your skin is exposed to the sunshine. Several times a week try to take a walk or sit in the sun for 20-30 minutes. This is especially important in the winter when there is less sunlight. Remember to use sunscreen

Eat Protein-Rich Foods
Body proteins are constantly being made and used during your lifetime to maintain cell and organ functions. Adequate protein intake and protein reserves are important for older adults, especially during periods of emotional and physical stresses. Protein helps to prevent muscle loss. Eat protein-rich foods such as meats, fish, dried beans and peas, or tofu. Also, these foods are good sources of iron and zinc.

As you age, blood levels of vitamin B-12 usually decrease. Vitamin B-12 is needed to make red blood cells and maintain the central nervous system. Animal foods are good sources of vitamin B-12.

Eat a Plant-Based Diet
Research reveals that a variety of nutrient-dense fruits, vegetables, and whole-grain foods may protect cells against free radicals (unstable compounds). They also may help protect you against the adverse effects of everyday cancer causing agents such as pollution, dietary factors, tobacco smoke, and viruses.

Antioxidants are compounds, such as vitamins A, C, and E, which are found in foods. They protect us from cell damage and may reduce the risk of cancer and heart disease, and may slow down the aging process.

Phytochemicals are chemicals or ingredients naturally found in all plant foods. Some phytochemicals help to protect a healthy, normal cell from turning into a cancerous cell. Also, phytochemicals may slow down the growth of tumor cells.

Eat colorful meals and snacks by choosing lots of fruits, vegetables, dried beans, nuts and whole-grain foods. It is the easiest way to get all of these important nutrients.

- Vitamins—A, C, E, D, & niacin,
- riboflavin, thiamin, folate, B-6 & B-12
- Minerals—calcium, iron, & zinc
- Fiber—soluble & insoluble
- Proteins, Carbohydrates, & Fats
- Antioxidants & Phytochemicals

Time to Choose!
Circle the foods that are the best source of the nutrient listed below. The same or equal serving sizes are used in the comparison. Hint: Some have more than one correct answer!

- Vitamin A—
  - Cauliflower, Greens, Apple
- Vitamin C—
  - Apple, Banana, Grapefruit
- Fiber—
  - Pear, Dried Beans, Apple Sauce
- Calcium—
  - Broccoli, Butter, Yogurt
- Iron—
  - Milk, Meat, Dried Fruits
- Nutrient-Dense Foods—
  - Cake, Barley, French Fries
- Phytochemical Rich Foods—
  - White Rice, Mashed Potatoes, Sweet Potatoes

Drink more of this fluid—
Sodas, Water, Coffee
Drink more of this fruit juice—
Fruit Cocktail, 100% Fruit Juice, Fruit Punch


Posters: fluids—Water, 100% Fruit Juice
broccoli, Turmeric, Iron—Meat, Dairy, Fruits, Nutrient-Dense—Barley, Phytochemical—Sweet
Should I Take Supplements?
By Eleanor Schlenker, Ph.D., R.D. Professor, Dept. of Human Nutrition, Foods and Exercise, Virginia Tech. Dr. Schlenker is an expert on nutrition for older adults.

Every day in the media we see ads for dietary supplements that promise to prevent aging changes or improve physical, mental, and nutritional health. Although we know that vitamins, minerals, antioxidants, and possibly particular herbs are beneficial to health, it is important that we don’t use supplements in place of food or in extremely high amounts. Some herbal remedies or high potency vitamin or mineral supplements can interfere with the action of certain prescription and over the counter medications. Be sure to check with your doctor before starting any dietary supplements.

Vitamin B-12 can be a problem nutrient for older people. In nature, vitamin B-12 is found only in animal foods. Acid normally found in the stomach releases vitamin B-12 from the animal proteins where it is found. Unfortunately, the amount of stomach acid decreases as we age, resulting in lower body levels of vitamin B-12. Vitamin B-12 found in fortified foods can be absorbed by older people despite lower stomach acid. Regular use of a breakfast cereal fortified with vitamin B-12 helps supply this vitamin.

Some older people have a poor appetite as a result of their health conditions, lack of exercise, or as a side effect of certain medications. Older people with low food intake who rely on a nutritional supplement to help provide needed amounts of protein, vitamins and minerals should seek the advice of a health professional when selecting a supplement. Well-meaning family or friends do not have the educational background to help you avoid dangerous drug interactions. Store clerks may be more interested in selling products than providing reliable information. Liquid nutritional supplements are very expensive and don’t always contain other important dietary components such as phytochemicals or fiber. Your doctor, dietitian, or pharmacist is the best source of information.

Osteoporosis
By Karen A. Roberto, Ph.D., Professor and Director, Center for Gerontology, Virginia Tech. Dr. Roberto is an expert on osteoporosis.

Osteoporosis is an age-related bone disorder characterized by thinning of the bones where bones become fragile and prone to fractures. This chronic, progressive disease affects more than 28 million Americans, about 80% of whom are women.

Osteoporosis offers unique challenges to older adults. Most persons in the early stages of osteoporosis experience few or no signs or symptoms. If the disease progresses and multiple fractures occur, many people have pain, particularly after standing for a long time, bending and reaching, and riding in a car. This often makes it hard to perform daily activities. Unable to do them alone, older adults with osteoporosis often rely on their spouses or adult children for help. Older women and men with osteoporosis may experience stress and depression. These problems often result in withdrawal from social relationships and activities and in increased feelings of isolation and loneliness.

Successful strategies used by older persons to cope with osteoporosis include these:

- **Physical Strategies**: do weight-bearing exercises; eat a balanced diet rich in calcium and vitamin D; limit lifting, pushing, and pulling; rest and take breaks during the day; say "no" to activities that cause pain.

- **Psychological Strategies**: seek information; read or watch television as a distraction; try biofeedback or relaxation techniques; talk to a friend or family member; join a support group.

- **Medical Strategies**: ask your doctor about approved medication; see a physical therapist; talk to a nutritionist.

- **Social Strategies**: keep in contact with and accept help from family members and friends; modify social and recreational activities; develop new interests and skills.

For more information about osteoporosis, contact the National Osteoporosis Foundation, 1232 22nd Street N.W., Washington, D.C. 20037-1292, (202) 223-2226 or see their website, [http://www.nof.org/](http://www.nof.org/)
Nutrition and social quiz
Check the statements that apply to you.

- The food I eat doesn’t taste as good to me as it did.
- Most of the time I eat by myself.
- I eat fewer than two meals a day.
- It is hard for me to prepare meals.
- I have tooth pain or mouth pain that makes it difficult for me to eat.
- I take more than three prescribed or over-the-counter drugs daily.
- Without trying, I have lost ten pounds or more in the last six months.
- I don’t have enough money to buy food throughout the month.
- I have a health-related illness or disease that makes it hard for me to eat properly.

If you have checked more than two of these statements, you may be at nutritional risk. Always consult a doctor, registered dietitian (RD), or other health care professional when you have specific health problems, changes or concerns.


As You Age, Consider Volunteering With Virginia Cooperative Extension
If you find that you can participate in a greater range of volunteer activities, consider volunteer opportunities with Virginia Cooperative Extension, which include Master Gardeners, Nutrition Mentors, and Financial Mentors.

For further information, contact your local Extension office:

http://www.ext.vt.edu Virginia Cooperative Extension Publications

http://www.ext.vt.edu Seniors Surf the Web (nutrition and aging information in a program that teaches how to navigate the Internet)

Nutrition Publications
- Choosing Foods for Good Health (348-710)
- Heart Healthy Eating—Cholesterol, Fat, Fiber, & Sodium (348-898)
- Are You Fiber Friendly? (348-050)
- The Diet and Cancer Connection (348-141)
- Calcium Checklist (348-019)
- Iron Checklist (348-371)
- Making Ends Meet: Food & Money (348-051)
- Keep Foods Safe (348-593)
- C/O Your Health (Newsletter Series to decrease the risk of cancer)
- Change of Heart (Newsletter Series to decrease the risk of heart disease)

Aging Publications
- Elder Abuse Alert - Considerations About a Hidden Problem (350-251)
- Choosing Community-Based Services for Older Adults and Their Families (350-252)
- Substitute Decisions By and For Adults and Their Families (350-253)
- Living Options For Adults Needing Assistance (350-254)
- Lucy is Still Here, videotape, 28 min. (275-136)

References: