

NUTRITION AND THE ELDERLY

(ADAPTED)

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It is no secret that America is getting older. Not only are people living longer, but fewer babies are being born. As a result, the elderly are the fastest growing segment of the population. While people over 65 comprise 11 percent of the U.S. population in 1980 they are expected to make up 20 percent by the year 2030. This is a marked increase compared to 1900 when only 4 percent of the nation's population was 65 years or older.

Old age is no longer being "old". The word "old" brings to mind the image of a white-haired lady sitting idly in a rocking chair watching life pass by. No longer is aging typified by a loss of teeth, a diet of tea and toast, and inactivity. Rather, a typical 65-year old is anxiously making changes in daily work habits to allow time for chosen activities for pleasure, enjoyment, and fulfillment of lifelong plans.

What is the aging process?

Normal aging is a changing process, starting at birth and occurring throughout life. A marked difference often exists between physiological and chronological age since the aging process occurs at different rates.

The aging process involves many complex physiological changes. These changes are gradual and progressive. The digestion and absorption of foods become less efficient with aging. The organs of the body such as the heart, lungs, kidneys and liver may have reduced ability to utilize the nutrients which are available. And the quality of the food intake may also be reduced for a variety of reasons; poor chewing ability, reduced income, physical disabilities like arthritis, and lack of motivation.

What is the role of nutrition in aging?

Nutrition probably has a significant influence on aging although direct cause and effect is difficult to prove. The quality of life is affected by a number of factors—nutrition, physical activity, health habits, heredity, and environment.

Man's search for the "fountain of youth" goes on, hoping to find a diet or food that can prevent aging. The idea is not totally nonsense since we know that food supplies the nutrients of which our body cells are made. However, no such magical formula or potion has been discovered to prevent the natural process of aging.

Mature adults no longer require the extra nutrients for growth and development that were

necessary during childhood and adolescence. However, good nutrition is vital to keep bodies in good working order, to supply energy and to resist disease and recuperate from illness.

Changes in Body Composition

The ratio of muscle to fat changes during the aging process. There is a gradual reduction in the amount of active muscle tissue. The muscle is generally replaced by fat. It has been estimated that the active muscle tissue is reduced by 3 percent every 10 years after the age of 20. This is a reversible change. Regular physical activity can increase muscle mass, decrease body fat content, and give a sense of wellness. One activity which is free and available to all is walking. The benefits are multiplied if a good friend provides companionship and conversation.

Calcium Loss

Another physiological change which occurs with inactivity is the loss of calcium from the bones. The incidence of osteoporosis and broken bones in the elderly is a continuing problem. The calcium in the body is in a continual state of change. It is constantly being stored and withdrawn from the body tissues, especially bones and teeth. During physical inactivity, the withdrawal is greater than the storage. A good source of calcium should be included in your diet every day. It is recommended that at least two servings of dairy products be consumed daily by all adults. See your individual requirements at www.mypyramid.gov.

Reduced Energy Requirement

In addition to reduced physical activity, the basic functions of the body have slowed down (basal metabolic rate). When physical activity is reduced, MyPyramid suggests fewer calories be consumed. Any older person can find their individual recommendations on the website. Any increase in physical activity will increase the total amount of food energy the body requires, which in turn increases the chance of getting the necessary nutrients.

Research Findings - USDA

In the Boston area, the USDA Human Nutrition Research Center has completed an extensive nutritional status survey of approximately 1,000 elderly volunteer subjects aged 60-98 years. The major findings in the 700 noninstitutionalized subjects who were "healthy" follows.

- * Energy intakes among males were 1800 calories per day and about 1500 calories per day in females. As a proportion of total energy, proteins provided about 17%, fats 34%, and carbohydrates 48 to 49% of calories.
- * Protein intake appeared to be adequate.
- * Using less than two-thirds of the RDA as an arbitrary cutoff, the following nutrients were "low": vitamins D, B6, B12, and folic acid; the minerals calcium and zinc.

- * Even though dietary supplements were used regularly by up to half the population in this study, the estimates of "low" intakes were changed very little for these particular nutrients when total intake (diet + supplement) was considered.
- * Data showed little or no biochemical evidence for any nutrient deficiencies in this population, nor was there clinical or hematologic evidence of deficiency.
- * Twenty percent of elderly males and up to 38% of females consumed less than two-thirds of the RDA for calcium. The low intakes observed in middle-aged U.S. populations become even lower among the elderly. As is well known, this may be one factor in age-related bone loss (osteoporosis) in our population.
- * Obesity is a frequent condition among elderly females of all ages (30 to 40% of the population in the Boston study.) Among males the prevalence of obesity declined from 35% in those under age 80 years to only 13% among the older subjects.
- * In subpopulation groups (lower income and lower educational level) the intakes of protein and of many micronutrients were significantly reduced.

Other Considerations

- * A variety of medications are used which may affect appetite and nutrient metabolism.
- * Usage of nutrient supplements is high. Intakes may be beyond RDAs.
- * The role of nutrition in maintaining optimal health is undefined.
- * Nutritional implications in major age-related chronic diseases are being researched but there are no definitive answers.
- * Are special programs addressing the most critical needs of elderly and are they effective?
- * Is there accurate interpretation of the traditional nutrition research data since the standards for evaluation are derived largely from much younger population groups?
- * The RDAs are for age 51 and older. Is there a difference between requirements for a 91-year-old and a 51-year-old?
- * Elderly are subjected to nutritional misinformation and supplements.

Nutrition Recommendations

No specific dietary recommendations are made for mature adults which are different from other adult groups. The U.S. Department of Agriculture and Health and Human Services issued seven dietary guidelines in 1980 (still widely used today) which provide the best diet recommendations

for the U.S. population.

1. Eat a variety of foods. No single food item supplies all the essential nutrients in the amounts that you need. The greater the variety, the less likely you are to develop either a deficiency or an excess of any single nutrient. One way to assure variety and, with it, a well-balanced diet is to select foods each day from each of the food groups.
2. Maintain ideal weight. To improve eating habits: eat slowly, prepare smaller portions, and avoid "seconds." To lose weight: increase physical activity, eat less fat and fatty foods, eat less sugar and sweets, and avoid too much alcohol.
3. Avoid too much fat, saturated fat, and cholesterol. Moderate your use of eggs and organ meats (such as liver). Limit your intake of butter, cream, hydrogenated margarines, shortenings and coconut oil, and foods made from such products. Trim excess fat off meats. Broil, bake, or boil rather than fry. Read labels carefully to determine both amount and types of fat contained in foods.
4. Eat foods with adequate starch and fiber. Select foods which are good sources of fiber and starch, such as whole grain breads and cereals, fruits and vegetables, beans, peas, and nuts.
5. Avoid too much sugar. Use less of all sugars including white sugar, brown sugar, raw sugar, honey, and syrups. Eat less foods containing these sugars such as candy, soft drinks, ice cream, cakes, and cookies. Select fresh fruits or fruits canned without sugar or light syrup rather than heavy syrup. Read food labels for clues on sugar content—if the names sucrose, glucose, maltose, dextrose, lactose, fructose, or syrups appear first, then there is a large amount of sugar. Remember, how often you eat sugar is as important as how much sugar you eat.
6. Avoid too much sodium. Learn to enjoy the unsalted flavors of foods. Cook with only small amounts of added salt. Add little or no salt to food at the table. Limit your intake of salty foods such as potato chips, pretzels, salted nuts, and popcorn, condiments (soy sauce, steak sauce, garlic salt), cheese, pickled foods, and cured meats. Read food labels carefully to determine the amounts of sodium in processed foods and snack items.
7. If you drink alcohol, do so in moderation. Alcoholic beverages are high in calories and low in nutrients. Thus, even moderate drinkers will need to drink less if they are overweight and wish to reduce.

Summary

Moderation is a key word in nutrition and food selection for the elderly. Good health requires a conscious effort and is the result of many factors. Easily controlled factors are nutrition and activity; optimum health is in your hands.