

Aging Gracefully

by Caroline Smith

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In the past two decades the size of the aging population has grown more than two times as fast as the population at large. The following seven guidelines are basic health practices necessary for the enjoyment of the extended life spans more people expect as science and technology advance.

- 1) Obtain 7-8 hours of sleep a night
- 2) Eat a good breakfast every day
- 3) Maintain a desirable weight
- 4) Exercise regularly
- 5) Snack in-between meals
- 6) Do not drink alcohol and if you must, do so in moderation
- 7) Do not smoke cigarettes

Especially for the masters athlete, time is too precious to waste so make the most of each day. Extra care must be taken to assure that the nutritional needs are being met for your body's changing requirements for energy (calories), protein, vitamins, and minerals.

Energy Requirements

For individuals between 51 and 75 years of age, the energy (calorie) requirements are reduced to about 90 percent of the amount required as a younger adult. For those over 75, the calorie requirement is only 80 percent of the amount needed for those 51-75 years of age. Especially with this reduced requirement it's more difficult and more important that you provide your body with a wide variety of foods so that all its nutrient requirements might be met.

Some of this diminished caloric requirement is due to body compositional changes. Your proportion

of fat tends to increase, your lean mass, which is more metabolically active, slows its activity, and generally speaking your physical activity slows with age as well.

If you are still quite active with exercise be sure to keep your caloric input up to avoid stripping the body of many necessary nutrients. The distribution of your total calories should be about 12 percent protein. The highest percent of your diet should be carbohydrates (preferably complex) at about 65-75 percent. Limit your fat intake to 25 percent. The fats that you choose should be from the least saturated forms you can obtain to avoid

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potential heart disease problems. Some examples are canola oil, olive oil or safflower oil.

The other important issue in your diet is to keep it as high in nutrient density as possible. If you are eating a lot of empty calories you will not get the appropriate nutrients you need to maintain your body's health, especially if you are stressing it through exercise on a daily basis.

For an older person who is not engaged in physical activity, the distribution of foods needs to be two servings of dairy, one to two servings of the meat group, four servings of fruits and vegetables and four servings from the bread, pasta and grain group. The energy requirements go up significantly with exercise. The best foods to boost caloric intake with are fruits, vegetables, bread, pasta and grains.

Protein Requirements

The body's need for protein is due to a loss of lean body mass — particularly muscle, a decrease in the capacity of the liver to synthesize albumin, and a decrease in the body's tolerance to protein. The present RDA of 0.8 grams/kg body weight still appears sufficient. Stay close to that 12-15 percent caloric intake of protein to

prevent getting too little or too much; either can be just as harmful as the other. The work of the kidneys is increased by the need to excrete nitrogenous end products when the dietary protein is high. Couple that with the natural age-related decline in renal function and you have a formula for trouble.

Vitamin Requirements

In general it is important to keep the vitamins in balance to avoid any major health problems. Each vitamin has its specific role in maintaining the body's homeostasis properties. Here are some which are important in the aging cycle.

Fat-Soluble Vitamins

Vitamin A helps with normal vision and optimizing normal differentiation of epithelial tissues. It can be found in yellow, green and orange vegetables. The RDA is 1000 retinol equivalents (RE) for men and 800 for women.

Vitamin D helps with calcium absorption and regulation of plasma calcium levels as well as being required for phosphate homeostasis. Found in milk and margarine which are enriched with vitamin D and fish oils as well as in liver.

Vitamin E has been proposed as an antioxidant that can retard and prevent the aging process. Vegetable oils, seeds, grains, and nuts are good sources of this vitamin. The RDA is 10mg for men and 8mg for women.

Water-Soluble Vitamins

In general, eating breads and cereal from whole grains will contribute the various B vitamins needed in your diet. The major ones are Thiamine (B₁), Riboflavin (B₂), Niacin (B₃), and Folic acid which are added to enriched foods. There is some evidence that B₆ requirements increase with age but due to methodological procedures a recommendation has not been established for the elderly.

Vitamin C can be important in helping fight infections and maintaining a stable system against free radical development from chemical and environmental pollutants. The RDA is 60mg a day.

Minerals

Calcium requirements of the aging may be greater than that of the younger

individuals. There is bone loss accompanied by again. This bone loss can contribute to fractures. The absorption of calcium decreases with age. Typically older people are more sedentary and this can accelerate bone loss. The best source of this food is from milk, cheese, yogurt and now calcium fortified orange juice. The RDA is 800mg for the older individuals.

Iron stores tend to increase with age and therefore this has not been a mineral of concern. When an iron related deficiency does develop it is usually related to bleeding due to chronic ingestion of aspirin or because of hemorrhaging from a peptic ulcer, esophageal varices, or large bowel cancer.

Zinc has an RDA of 15mg daily but many older men and women do not get this much zinc each day. Part of this is due to the drop in calories consumed by the elderly. It is recognized that a diet high in fiber, including bran, may decrease the absorption of zinc. The impaired cellular immune response and slow wound healing in the elderly may be linked to a zinc deficiency. To obtain zinc in the diet eat plenty of round steak, lamb chops, wheat germ, brewer's yeast, pumpkin seeds, eggs, nonfat dry milk and ground mustard.

In summary, we can age gracefully if we pay attention to the things we do now. Eat a balanced diet from all the food groups to assure that you are meeting the various nutrient requirements and incorporate moderate levels of exercise. There is no magical pill — just a simple formula that, if you apply it every day, will gain you more days to live. Here's to good health!

Biographical Statement

Caroline Smith, M.S. has a Master's Exercise Physiology with a second degree in Nutrition. Her first bachelor's degree is in Psychology. She is the President of Sportsense Co. which specializes in consulting individuals and groups in the exercise and nutrition areas. She also works with the Las Colinas Sports Club and Sports Nutrition Source, in the nutrition and exercise areas.

She is a competitive triathlete in her 11th season and has won quite a few races in Texas since moving here last July. She is sponsored by Plano Cycling and Fitness, Banke Bikes, Avocet, Baracuda Goggles, Powerbar, Stim-O-Stam, Sports Nutrition Source (SNS) and Jim Salih Massage. Presently she is working on a book "The Weekend Triathlete" which should be out soon. ■