13.4: Middle Age and Nutrition

Skills to Develop

- Summarize nutritional requirements and dietary recommendations for middle-aged adults.
- Discuss the most important nutrition-related concerns during middle age.
- Define “preventive nutrition” and give an applied example.

During this stage of the human life cycle, adults begin to experience the first outward signs of aging. Wrinkles begin to appear, joints ache after a highly active day, and body fat accumulates. There is also a loss of muscle tone and elasticity in the connective tissue. Elaine U. Polan, RNC, MS and Daphne R. Taylor, RN, MS, *Journey Across the Life Span: Human Development and Health Promotion* (Philadelphia: F. A. Davis Company, 2003), 212–213. Throughout the aging process, good nutrition can help middle-aged adults maintain their health and recover from any medical problems or issues they may experience.

Middle Age (Ages Thirty-One to Fifty): Aging Well

Many people in their late thirties and in their forties notice a decline in endurance, the onset of wear-and-tear injuries (such as osteoarthritis), and changes in the digestive system. Wounds and other injuries also take longer to heal. Body composition changes due to fat deposits in the trunk. To maintain health and wellness during the middle-aged years and beyond, it is important to:

- maintain a healthy body weight
- consume nutrient-dense foods
- drink alcohol moderately or not at all
- be a non-smoker
• engage in moderate physical activity at least 150 minutes per week

**Energy**

The energy requirements for ages thirty-one to fifty are 1,800 to 2,200 calories for women and 2,200 to 3,000 calories for men, depending on activity level. These estimates do not include women who are pregnant or breastfeeding (see Chapter 12 "Nutrition through the Life Cycle: From Pregnancy to the Toddler Years"). Middle-aged adults must rely on healthy food sources to meet these needs. In many parts of North America, typical dietary patterns do not match the recommended guidelines. For example, five foods—iceberg lettuce, frozen potatoes, fresh potatoes, potato chips, and canned tomatoes—account for over half of all vegetable intake. Adam Drewnowski and Nicole Darmon. “Food Choices and Diet Cost: an Economic Analysis.” *The Journal of Nutrition*. © 2005 The American Society for Nutritional Sciences. Accessed March 5, 2012. [http://jn.nutrition.org/content/135/4/900.full](http://jn.nutrition.org/content/135/4/900.full). Following the dietary guidelines in the middle-aged years provides adequate but not excessive energy, macronutrients, vitamins, and minerals.

**Video 13.4.1: Caloric Restriction**

This video focuses on the possible connection between caloric restriction and longevity. (click to see video)

**Macronutrients and Micronutrients**

The AMDRs for carbohydrate, protein, fat, fiber, and fluids remain the same from young adulthood into middle age (see Section 13.3 "Young Adulthood and Nutrition" of this chapter). It is important to avoid putting on excess pounds and limiting an intake of SoFAAS to help avoid cardiovascular disease, diabetes, and other chronic conditions.

There are some differences, however, regarding micronutrients. For men, the recommendation for magnesium increases to 420 milligrams daily, while middle-aged women should increase their intake of magnesium to 320 milligrams per day. Other key vitamins needed during the middle-aged years include folate and vitamins B₆ and B₁₂ to prevent elevation of homocysteine, a byproduct of metabolism that can damage arterial walls and lead to atherosclerosis, a cardiovascular condition. Again, it is important to meet nutrient needs with food first, then supplementation, such as a daily multivitamin, if you can’t meet your needs through food.

**Preventive/Defensive Nutrition**

During the middle-aged years, preventive nutrition can promote wellness and help organ systems to function optimally throughout aging. Preventive nutrition is defined as dietary practices directed toward reducing disease and promoting health and well-being. Healthy eating in general—such as eating unrefined carbohydrates instead of refined carbohydrates and avoiding trans fats and saturated fats—helps to promote wellness. However, there are also some things that people can do to target specific concerns. One example is consuming foods high in antioxidants, such as strawberries, blueberries, and other colorful fruits and vegetables, to reduce the risk of cancer.

[https://med.libretexts.org/Courses/American_Public_University/APUS%3A_An_Introduction_to_Nutrition_(Byerley)/Text/13%3…](https://med.libretexts.org/Courses/American_Public_University/APUS%3A_An_Introduction_to_Nutrition_(Byerley)/Text/13%3…)

Updated: Tue, 27 Oct 2020 03:13:42 GMT

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Figure 13.4.1: Brightly colored tomatoes are another example of foods that are high in antioxidants. (CC BY-SA, 3.0; Aravind Sivaraj).


Omega-3 fatty acids can help to prevent coronary artery disease. These crucial nutrients are found in oily fish, including salmon, mackerel, tuna, herring, cod, and halibut. Other beneficial fats that are vital for healthy functioning include monounsaturated fats, which are found in plant oils, avocados, peanuts, and pecans.

Menopause

In the middle-aged years, women undergo a specific change that has a major effect on their health. They begin the process of menopause, typically in their late forties or early fifties. The ovaries slowly cease to produce estrogen and progesterone, which results in the end of menstruation. Menopausal symptoms can vary, but often include hot flashes, night sweats, and mood changes. The hormonal changes that occur during menopause can lead to a number of physiological changes as well, including alterations in body composition, such as weight gain in the abdominal area. Bone loss is another common condition related to menopause due to the loss of female reproductive hormones. Bone thinning increases the risk of fractures, which can affect mobility and the ability to complete everyday tasks, such as cooking, bathing, and dressing. Academy of Nutrition and Dietetics. “Eating Right During Menopause.” © 1995–2012. Accessed March 5, 2012. [www.eatright.org/Public/content.aspx?id=6809](http://www.eatright.org/Public/content.aspx?id=6809). Recommendations for women experiencing menopause or perimenopause (the stage just prior to the end of the menstruation) include:
• consuming a variety of whole grains, and other nutrient-dense foods
• maintaining a diet high in fiber, low in fat, and low in sodium
• avoiding caffeine, spicy foods, and alcohol to help prevent hot flashes
• eating foods rich in calcium, or taking physician-prescribed calcium supplements and vitamin D
• doing stretching exercises to improve balance and flexibility and reduce the risk of falls and fractures

Key Takeaways

Middle-aged adults begin to experience signs of aging and must continue to support their health and wellness with nutrition and exercise. The daily energy requirements for ages thirty-one to fifty are 1,800 to 2,200 calories for women and 2,200 to 3,000 calories for men, depending on activity level. Nutritional concerns for middle-aged adults relate to menopause and the prevention of chronic disease.

Discussion Starter

1. Visit the following websites to learn more about nutrition during the years of perimenopause and menopause. Discuss with classmates what you believe to be the three most important nutritional concerns for women during this phase of life. http://www.medicinenet.com/script/main/art.asp?articlekey=59895 and http://www.webmd.com/menopause/guide/staying-healthy-through-good-nuitrition