8.4: Exercise, Nutrition, and Weight

The impact of exercise: Exercise is a powerful way to combat the changes we associate with aging. Exercise builds muscle, increases metabolism, helps control blood sugar, increases bone density, and relieves stress. Unfortunately, fewer than half of midlife adults exercise and only about 20 percent exercise frequently and strenuously enough to achieve health benefits. Many stop exercising soon after they begin an exercise program, particularly those who are very overweight. The best exercise programs are those that are engaged in regularly, regardless of the activity. A well-rounded program that is easy to follow includes walking and weight training. Having a safe, enjoyable place to walk can make the difference in whether or not someone walks regularly. Weight lifting and stretching exercises at home can also be part of an effective program. Exercise is particularly helpful in reducing stress in midlife. Walking, jogging, cycling, or swimming can release the tension caused by stressors. Learning relaxation techniques can also have healthful benefits. Exercise can be thought of as preventative health care. Promoting exercise for the 78 million "baby boomers" may be one of the best ways to reduce health care costs and improve quality of life (Shure & Cahan, 1998).

According to the Office of Disease Prevention and Health Promotion (2008), the following are exercise guidelines for adults:

- Adults should avoid being inactive. Any activity will result in some health benefits.
- For substantial health benefits, adults should engage in at least 150 minutes per week of moderate intensity exercise OR at least 75 minutes of vigorous intensity aerobic activity. Aerobic activity should occur for at least 10 minutes and preferably spread throughout the week.
- For more extensive health benefits, adults can increase their aerobic activity to 300 minutes per week of moderate intensity OR 150 minutes per week of vigorous intensity aerobic activity.
- Adults should also participate in muscle-strengthening activities that are moderate or high intensity and involve all major muscle groups on two or more days per week.

Nutritional concerns: Aging brings about a reduction in the number of calories a person requires (see Table 8.7 for...
estimated caloric needs in middle-aged adults). Many Americans respond to weight gain by dieting. However, eating less does not typically mean eating right and people often suffer vitamin and mineral deficiencies as a result. All adults need to be especially cognizant of the amount of sodium, sugar, and fat they are ingesting.

Table 8.7 Estimated Calorie Needs per Day, by Age, Sex, & Physical Activity Level

Source: Adapted from 2015-2020 Dietary Guidelines for Americans

[a] Sedentary means a lifestyle that includes only the physical activity of independent living
[b] Moderate activity means a lifestyle that includes physical activity equivalent to walking more than 1.5 to 3 miles per day at 3 or 4 miles per hour, in addition to the activities of independent living.
[c] Active means a lifestyle that includes physical activity of walking more than 3 miles per day at 3 or 4 miles per hour, in addition to the activities of independent living.
[d] Estimates for females do not include women who are pregnant or breastfeeding

Excess Sodium: According to dietary guidelines, adults should consume less than 2,300mg (1 teaspoon) per day of sodium. The American Heart Association (2016) reports that the average sodium intake among Americans is 3440mg per day. Processed foods are the main culprits of excess sodium. High sodium levels in the diet is correlated with increased blood pressure, and its reduction does show corresponding drops in blood pressure. Adults with high blood pressure are strongly encouraged to reduce their sodium intake to 1500mg (U.S. Department of Health and Human Services & U.S. Department of Agriculture (USHHS & USDA), 2015).

Excess Fat: Dietary guidelines also suggest that adults should consume less than 10 percent of calories per day from saturated fats. The American Heart Association (2016) says optimally we should aim for a dietary pattern that achieves 5% to 6% of calories from saturated fat. In a 2000 calorie diet that is about 120 calories from saturated fat. In the average American diet about 34.3% of the diet comes from fat, with 15.0% from saturated fat (Berglund et al., 1999). Diets high in fat not only contribute to weight gain, but have been linked to heart disease, stroke, and high cholesterol.

Added Sugar: According to the recent Dietary Guidelines for Americans (USHHS & USDA, 2015) eating healthy means adults should consume less than 10 percent of calories per day from added sugars. Yet, currently about 15% of the calories in the American adult diet come from added sugars, or about 22 teaspoons of sugar per day (NIH, 2014c). Excess sugar not only contributes to weight gain, but diabetes and other health problems.

Metabolism and Weight Gain: One of the common complaints of midlife adults is weight gain, especially the accumulation of fat in the abdomen, which is often referred to as the middle-aged spread (Lachman, 2004). Men tend to gain fat on their upper abdomen and back, while women tend to gain more fat on their waist and upper arms. Many adults are surprised at this weight gain because their diets have not changed, however, their metabolism has slowed during midlife. Metabolism is the process by which the body converts food and drink into energy. The calories consumed are combined with oxygen to release the energy needed to function (Mayo Clinic, 2014b). People who have more muscle burn more calories, even at rest, and thus have a higher metabolism.

However, as you get older, the amount of muscle decreases. Consequently, fat accounts for more of one’s weight in midlife and slows down the amount of calories burned. To compensate, midlife adults have to increase their level of exercise, eat less, and watch their nutrition to maintain their earlier physique.
Obesity: As discussed in the early adulthood chapter, obesity is a significant health concern for adults throughout the world, and especially America. Obesity rates continue to increase, and being overweight is associated with a myriad of health conditions including diabetes, high blood pressure, and heart disease. New research is now linking obesity to Alzheimer’s disease. Chang et al. (2016) found that being overweight in midlife was associated with earlier onset of Alzheimer’s disease. The study looked at 1,394 men and women who were part of the Baltimore Longitudinal Study of Aging. Their average age was around 60, and they were followed for 14 years. Results indicated that people with the highest body mass index, or BMI, at age 50 were more likely to develop Alzheimer’s disease. In fact, each one-point increase in BMI was associated with getting Alzheimer’s six to seven months earlier. Those with the highest BMIs also had more brain changes typical of Alzheimer’s, even if they did not have symptoms of the disease. Scientists speculate that fat cells may produce harmful chemicals that promote inflammation in blood vessels throughout the body, including in the brain. The conclusion of the study was that a healthy BMI at midlife may delay the onset of Alzheimer’s disease.

Concluding Thoughts: Many of the changes that occur in midlife can be easily compensated for, such as buying glasses, exercising, and watching what one eats. However, the percentage of middle adults who have a significant health concern has increased in the past 15 years. According to the 2016 United Health Foundation’s America’s Health Rankings Senior Report, the next generation of seniors will be less healthy than the current seniors (United Health Foundation, 2016). The study compared the health of middle-aged Americans (50-64 years of age) in 2014 to middle-aged Americans in 1999. Results indicated that in the past 15 years the prevalence of diabetes has increased by 55% and the prevalence of obesity has increased by 25%. At the state level, Massachusetts ranked first for healthy seniors, while Louisiana ranked last. Illinois ranked 36th, while Wisconsin scored higher at 13th.

What can we conclude from this information? Lifestyle has a strong impact on the health status of midlife adults, and it becomes important for midlife adults to take preventative measures to enhance physical well-being. Those midlife adults who have a strong sense of mastery and control over their lives, who engage in challenging physical and mental activity, who engage in weight bearing exercise, monitor their nutrition, receive adequate sleep, and make use of social resources are most likely to enjoy a plateau of good health through these years (Lachman, 2004).