

By Kristine Clark,
PhD, RD, FACSM

food after fifty

How to help your Boomer clients achieve and maintain nutritional fitness as they age.

In a 1984 snapshot taken as he crossed the finish line of a half marathon, 40-year-old Peter Larson looked “lean and mean” at 162 pounds. Now, 20 years later, Larson weighs in at 192 pounds. So what’s changed? For Larson, like millions of aging Baby Boomers who are losing the battle of the bulge, caloric intake no longer matches energy expenditure.

To make matters worse, unwanted weight gain is only one of many health challenges the Baby Boomers face. With 64% of the U.S. population now either overweight or obese, this population is at increased risk for cardiovascular disease, hypertension, cancers of the prostate and breast, type 2 diabetes, gallbladder disease, sleep apnea and osteoarthritis. Because the number of Americans over age 65 is expected to double by the year 2030 (Kurtzweil 2001), health and fitness professionals need to learn how to help their Baby Boomer clients age healthfully and stay nutritionally fit.

The Weight Dilemma & Aging

Experts are divided on how much weight gain is a product of the natural aging process and how much is attributable to other variables, such as decreased energy expenditure. But one thing’s certain: Decreased physical activity results in diminished muscle mass, which in turn impacts metabolic rate, or the rate at which the body burns calories. As part of the normal aging process, most body organs decrease in functional capacity, resulting in a 2% decline in basal metabolic rate (BMR) each decade (Kurtzweil 2001).

However, if physical activity also declines, BMR will decrease more quickly and there will be a greater increase in fat mass. Over time, weight gain will occur unless caloric intake is decreased.

Age-related changes that can impact metabolic rate include decreased functional capacity of the cardiovascular, gastrointestinal and respiratory systems, which can influence both nutrient absorption and nutrition needs (Williams 2003).

The Good News

While we can’t stop the aging process, it is possible to maintain weight as we get older. According to William Evans, PhD, of the Donald W. Reynolds Center on Aging at the University of Arkansas, “Engaging in a regular strength and conditioning program can retain and increase lean body mass as we age” (Campbell et al. 2002). This was underscored by a study in which researchers compared the differences in lean body mass between older men and women (age 54–78) who performed 12 weeks of resistance training (RT) and their counterparts who remained sedentary (Campbell et al. 2002).

The study’s goal was to determine what effects RT had on body composition, skeletal muscle size and protein metabolism in people of this age group. During the study period, all subjects ate a controlled-calorie diet that provided 0.8 grams of protein per kilogram (g/kg) of body weight per day, which is the current U.S. Recommended Dietary Allowance (RDA) for all adults. The RT group was divided into those who performed whole-body training versus those who did only lower-body RT. In both the RT groups, muscle strength increased by 17% in men and 12% in women in the muscle groups trained. Muscle strength did not increase in the sedentary group. Based on results like these, it is possible that muscle loss and decreases in BMR due to aging can be avoided—or at the very least reduced—by regularly engaging in RT.

It is interesting to note that in the study described above, both the RT subjects and the sedentary controls maintained a positive nitrogen balance, indicating that the amount of protein (0.8 g/kg) they consumed each day was adequate for muscle maintenance. Nutrition assessments have shown that older adults

the unhappy hour

Baby Boomers with more leisure time on their hands can find that happy hour starts earlier in the day. Yes, it’s true that some studies indicate that imbibing two alcoholic drinks (especially antioxidant-rich red wine) a day may confer cardiovascular benefits. However, a recent study found that

heavy alcohol use weakens bones and may increase the risk of breast cancer (Wilsnack & Wilsnack 2004).

Many people forget that alcohol is also a considerable source of calories. Remind your Baby Boomer clients that a regular beer contains 190 calories and most mixed drinks weigh in at about 80 calories each.

Because people with time on their hands often consume more than one drink in a sitting, this can really add up! So suggest that your clients find other ways to fill their leisure time (exercising is a great alternative for those who are idle in the late afternoon) and ensure that happy hour lasts only 60 minutes!

nutrient-dense food sources

Food	Serving Size	Amount	Calories
Calcium			
skim milk	1 cup	300 mg	80
low-fat yogurt	1 cup	400 mg	120
mozzarella cheese (skim milk)	2 oz	250 mg	100
Vitamin B₁₂*			
roasted chicken (white meat)	3.5 oz	0.32 mcg	205
lean beef (braised brisket)	3.5 oz	2.63 mcg	222
haddock	3 oz	1.18 mcg	95
skim milk	1 cup	0.1 mcg	80
egg (boiled)	1 large	0.56 mcg	78
Iron			
lean ground beef	3.5 oz	2.09 mg	265
roasted chicken (dark meat)	3.5 oz	1.33 mg	205
salmon	3 oz	0.29 mg	175
kidney beans	1 cup	5.2 mg	225
Folic Acid (Folate)			
fresh spinach	1 cup	0.02 mcg	12
baked acorn squash	1/2 cup	19 mcg	57
sweet potato	1 medium	26 mcg	117

*found only in animal-based food products and nutritional yeast

mcg = microgram(s)

mg = milligram(s)

oz = ounce(s)

Source: Pennington, J.A.T. 1998. *Bowes and Church's Food Values of Portions Commonly Used*. (17th ed.). Philadelphia: Lippincott Williams & Wilkins.

need at least 1 g of protein per kg of body weight to stay in positive nitrogen balance. However, the current RDA for protein is the same for all adults, regardless of age (Jenson 1998).

Nutrient Density

Eating foods that have a low nutrition value can also cause micronutrient shortages in older adults. Simply put, nutrient-dense foods are those that offer an array of valuable micronutrients while providing fewer total calories. For example, at 120 calories an English muffin made with processed white flour provides carbohydrate, a small amount of protein, B vitamins and a trace of iron. However, if that same English muffin is made with whole wheat, it has the added benefit of providing as much as 2 g of dietary fiber.

One way to help Baby Boomer clients make good food choices is to educate them about the differences in nutrient density in similar foods. By way of example, remind them that 8-ounce servings of regular and nonfat milk offer identical amounts of calcium, protein, vitamin D, vitamin A and phosphorus; however, the two versions differ significantly in terms of calorie content. For more practical suggestions, see "Nutrient-Dense Food Sources," above.

Controlling Food Portions

Most health professionals know that the key to weight maintenance is energy balance, or balancing energy (calories) eaten with energy expended. Without overanalyzing why aging Americans gain weight, it's safe to speculate that most people tend

to exercise less often as they get older while still eating the same portions and foods they did when they were younger. That's one reason why weight loss intervention strategies for Baby Boomers should emphasize improving health by eating smaller portions of food and focusing on nutrient density.

Additionally, an older person's ability to lose weight may depend to some extent on *who* is doling out the food. One study found that adults who serve themselves tend to eat smaller portions than those who are given set amounts of food (Rolls 2002). Study participants (aged 45–63) who were served their food generally ate everything on their plates, whereas subjects who served themselves took and ate less food.

So how does this translate in practical terms to your Boomer clients who are losing the weight battle? Recommend they share entrées when dining out or ask for their meals to be divided in two, with half allocated to a "doggie bag" they can take home for the next day. Also suggest they choose restaurants that serve family-size meals and allow customers to serve themselves—but advise them to veer clear of all-you-can-eat buffets and smorgasbords! Teach your older clients that even at home, it is important to pay attention to the size of their plate, bowl and glass in order to keep track of portion size.

Other Physiological Factors

Other physiological factors that affect weight as we age are hormonal changes and our ability to digest food properly. While hormones decline in both men and women as we age, the lack of estrogen has a striking effect on calcium absorption in menopausal women. That's because estrogen plays such a significant role in controlling calcium absorption and retention in the bones. Without adequate estrogen, women over the age of 50 are at increased risk for stress fractures or full-blown broken bones. However, experts do not recommend that women of this age supplement their calcium intake beyond the recommended 1,300 milligrams (mg) per day, which is the current Estimated and Adequate Intake for women over age 50. Most experts say that the source of this calcium should come from dietary food (see "Nutrient-Dense Food Sources" left), but in some instances, a physician may prescribe calcium supplements. Resistance training is also an excellent

way for women of all ages to stimulate bone growth. Once considered promising, hormone replacement therapy now appears to have little or no positive effect on bone mass growth.

Another thing clients need to be aware of is the role that intestinal bacteria can play in weight gain as we age. Atrophic gastritis is a bacterial infection marked by a decreased ability to produce sufficient amounts of gastric acids; this condition occurs in 24% of people aged 60–69 years, 32% of people aged 70–79 and about 40% of people over the age of 80 (Russell 2001). Low-acidic conditions in the stomach can affect the absorption of nutrients such as folic acid, vitamin B₁₂, calcium, iron and beta carotene (Rolls 2002). Clients who suffer from atrophic gastritis are usually advised to get adequate calories by eating more small meals throughout the day or by snacking on nutrient-dense foods (e.g., carrot sticks or cherry tomatoes) between meals to prevent micronutrient shortages. Medications may also be prescribed for this condition.

The Best Anti-Aging Antidote

Despite the promises of ads and infomercials, there is no magic pill for aging gracefully and maintaining a svelte body. In fact, the scientific literature does not even support the need for dietary supplements for Baby Boomers wanting to stay young.

Instead, the old advice is the best advice: Eat a balanced diet that contains all five food groups, drink plenty of water, and get a daily dose of strength and cardiovascular exercise. In the long run, living a healthy life is the best prescription for optimal aging!

Kristine Clark, PhD, RD, FACSM, is the director of sports nutrition at Penn State University.

© 2004 by IDEA Health & Fitness Inc. All rights reserved.
Reproduction without permission is strictly prohibited.

References

- Campbell, W., et al. 2002. Dietary protein adequacy and lower body versus whole body resistive training in older humans. *Journal of Physiology*, 542 (Pt. 2), 631–42.
- Jenson, G.L. 1998. Obesity in older persons. *Journal of the American Dietetic Association*, 98 (11), 1308–11.
- Kendrick, Z.V., & Nelson-Steen, S. 1994. Exercise, nutrition and aging. *South Medical Journal*, 87 (5), S50–60.
- Kerschner, H., & Pegues, J.M. 1998. Productive aging: A quality of life agenda. *Journal of the American Dietetic Association*, 98 (12), 1445–8.
- Kurtzweil, P. 2001. *Growing Older, Eating Better*. U.S. Food and Drug Administration: FDA Consumer Brochure.
- Rolls, B.J. 2002. Portion size of food affects energy intake in normal weight and overweight men and women. *American Journal of Clinical Nutrition*, 76 (6), 1207–13.
- Russell, R. 2001. Factors in aging that affect the bioavailability of nutrients. *Journal of Nutrition*, 131 (Suppl.), 1359S–61S.
- Pennington, J. 1998. *Bowes and Church's Food Values of Portions Commonly Used* (17th ed.). Philadelphia: Lippincott Williams & Wilkins.
- Williams, M. 2003. *Nutrition for Exercise and Sport* (3rd ed.) Boston: McGraw-Hill.
- Wilsnack, S., & Wilsnack, R. 2004. Drinking and problem drinking among U.S. women: Patterns and recent trends. In M. Galanter (Ed.), *Alcoholism and Women: Recent Developments in Alcoholism*, 12, 29–60. New York: Plenum Press.