

Exercise and the Obese Patient

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BY MARTIN BINKS, PhD

Data from the most recent NHANES (National Health and Nutrition Examination Survey 2005–2006) shows that the prevalence of obesity (body mass index [BMI] ≥ 30 kg/m²) among adult men was 33.3% and for adult women, it was 35.3%. The report also suggested that the increasing trend in obesity over the last 25 years involves a shift in the overall BMI distribution, which resulted in increasing numbers of people in the higher BMI ranges.¹ Add to this the number of individuals who are in the overweight range (BMI ≥ 25 kg/m²), and we have more than 66% of Americans who are struggling to manage their weight. As a result, there is an increasing need for health care providers on the front lines, regardless of background and training, to become confident in their ability to guide patients towards healthier behaviors (diet and exercise) and a healthier weight.

OBESITY-RELATED DISEASE

As the rate and severity of obesity rises, so do the number of Americans at risk for many obesity-related diseases and health conditions including coronary heart disease, type 2 diabetes, cancers (endometrial, breast, and colon), hypertension, dyslipidemia, stroke, liver and gallbladder disease, sleep apnea and respiratory problems, osteoarthritis, and gynecological problems.² Physical activity (with or without associated weight loss) plays an important role in improving and/or preventing many of the health conditions associated with excess weight. Furthermore, exercise has been found to be particularly effective in reducing abdominal fat deposits (visceral adiposity) and waist circumference, which, independent of weight, is related to heightened health risk.³ Finally, one very recent study of genetically identical twins suggests that physical activity may modify the influences of genetic factors on BMI and waist circumference. The authors suggest that based on their findings, the individuals at greatest genetic risk for

obesity may benefit the most from physical activity.⁴

Beyond physical health, another important consideration in treating the obese patient is health-related quality of life. It is well documented that quality of life deteriorates as weight increases and improves with weight loss.⁵ A recent long-term study, however, suggests that weight loss may not be the only factor in maintenance of quality-of-life improvements. Blissmer and colleagues found that at 6, 12, and 24 months following a behavioral weight-loss intervention, health-related quality of life was improved and that interestingly, these improvements did not appear to be solely dependent on weight loss.⁶ In a recent Duke Diet and Fitness Center study of 1,220 severely obese patients, we found that moderate amounts of exercise (on average 60 minutes per week) were associated with better quality of life suggesting that physical activity independent of BMI may be an important contributor.⁷

EXERCISE FOR THE OBESE PATIENT

How much exercise is enough for the obese patient? Despite our knowledge of the relationships among physical activity and improved health, quality of life, and weight, we have yet to establish clear-cut guidelines for exercise in obese populations. The majority of public health recommendations are directed toward maintaining a healthy weight and/or maintaining health in nonoverweight populations. In other words, they are not directed toward the majority of Americans. The 2001 US Surgeon General's Report⁸ recommended that people aim for 30 minutes of moderate-intensity exercise most days of the week to maintain health. Building on this recommendation, Shape Up America! translated this into what we now commonly see touted as the desired activity goal of 10,000 steps daily.⁹ Founded in 1994, Shape Up America! is a not-for-profit organization committed to raising awareness of obesity as a health issue and to providing responsible information on healthy weight management.

More recently, the Department of Health and Human Services published the 2008 Physical Activity Guidelines for Americans¹⁰ which recommend 2.5 hours (150 minutes) per week of moderate-intensity physical activity (brisk walking, bicycling, gardening, vacuuming) or 75 minutes vigorous-intensity activity (running, aerobics, heavy yard work) per week plus increasing “baseline” activity throughout the day. For those who are overweight, this may not be enough. Data from clinical trials suggest that it may be necessary to work toward as much as 70 to 80 minutes per day of moderate activity or 35 minutes per day of vigorous activity to maintain weight loss over the longer term.¹¹⁻¹³ Reports derived from The National Weight Control Registry, a self-selected registry of very successful weight-loss maintainers (founded 15 years ago by researchers at the University of Colorado and Brown University) have provided additional evidence in support of this notion. Currently, the Web site for the registry reports that the more than 5,000 members have lost an average of 66 lbs and kept it off for 5.5 years, and that 90% report exercising at least 60 minutes per day. Furthermore, approximately 35% report burning, on average 3,000 kcal per week (430 kcal per day) or roughly the equivalent of walking more than 4 miles per day.^{14,15}

RECOMMENDATIONS

So what direction can we give our obese patients regarding desired levels of physical activity? This is where common sense must prevail. We need to see the unique situation of each patient and start at a point that is reasonable within the context of that patient's current level of conditioning, degree of overweight, his or her medical situation, and the barriers in the patient's life (eg, time, stressors, other commitments). Within that context, recognize that small steps in the desired direction can be valuable in motivating further change.

For many patients who are perhaps in the overweight or mildly obese category who present with few barriers, one might reasonably expect that starting with the basic 30 minutes most days might represent an achievable short-term goal. If a patient feels her or she can reasonably set aside 30 minutes for a daily walk or other physical activity, then by all means support them in setting that goal. As they progress, encourage them to add more time to each session or add to the number of sessions per week. You can also counsel patients to gradually increase the intensity by walking faster or trying more challenging activities such as running or cycling.

For other patients, for example, the very sedentary or those who have one or more barriers, start by simply adding in more baseline activity. Have them purchase a pedometer and set goals like parking farther away, taking

the stairs in place of escalators and elevators—even if just for a floor or two. Help them to identify active leisure activities or other ways to gradually add more movement to their daily lives. As they work toward 10,000 steps per day, begin moving more, and start to feel a little better they can build toward higher levels of exercise.

Keep in mind that no matter what the starting point, as providers, we can be of most help if we encourage patients to value every milestone in their journey towards increasing physical activity. Help them to become realistic both in terms of immediate and longer-term activity goals, assist them in becoming consistent, and finally, inspire patients to view progress as more than the number on the scale. ■

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