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Helping Patients with Weight Loss

Nutrition, exercise, and lifestyle changes offer the best results.

Weight continues to be an overwhelming problem for many people in the United States. According to data from the National Health and Nutrition Examination Survey, 68% of U.S. adults ages 20 and older in 2007 and 2008 were overweight, with a body mass index (BMI) of at least 25, and nearly 34% were obese, with a BMI of at least 30. (BMI is calculated by dividing weight in kilograms by the square of height in meters.) In 2008 Americans spent $58.6 billion on various weight-loss products.[1] However, the science of weight management hasn't changed substantially since the beginning of time: it still takes a 3,500-calorie deficit to lose 1 lb. of fat. Any diet plan that works does so by creating a calorie deficit. Anyone who has fought this battle will continue to dream of an easier solution, but there's no magic answer to this increasingly common problem.

There are many barriers to weight loss, among them busy schedules, family demands, work obligations involving meals out and travel, sleep deprivation (a lack of sleep increases weight gain[2]), injury, surgery, and stress. There will be times when exercise fits more easily into one's schedule or when it's easier to plan and prepare meals. Willpower and appetite fluctuate throughout the month and over the lifespan.

Interestingly, age isn't necessarily a barrier in itself. Most people are surprised to learn that they lose the ability to metabolize only five to seven calories per year once they reach adulthood (mainly as a result of muscle loss that occurs with aging). Many menopausal women complain of weight gain, but what they perceive as weight gain is often just the redistribution of fat stores. It's possible that there are other factors at play, such as sleep disturbances caused by hormonal changes, but menopause itself doesn't diminish a patient's calorie needs. It's important to remember that muscle mass boosts metabolism, so as we age we must include muscle-building activities in a workout routine; this can be helpful to sustaining a healthy weight.

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THE BASICS OF WEIGHT LOSS

Caloric requirement. Many of the preformatted online formulas for determining a person's calorie needs overestimate them. It's impossible to determine calorie needs exactly, but with a little trial and error, it's possible to determine a range that allows for weight loss or maintenance.

The Harris–Benedict equation is a more accurate measure than many; using it requires first calculating one's basal metabolic rate (BMR), the number of calories a person requires to maintain weight if she or he does nothing all day.

To calculate the BMR in women, use the following equation:

655 + (4.35 × weight in pounds) + (4.7 × height in inches) – (4.7 × age in years).

To calculate the BMR in men, use the following equation:

66 + (6.23 × weight in pounds) + (12.7 × height in inches) – (6.76 × age in years).

To use the Harris–Benedict equation, multiply the BMR by the patient's activity factor (the level of activity required on a typical day, including the intensity and duration of any exercise performed). Many online calculators will give a range of values to plug into the equation, based on patients' estimates of their activity level. However, most people overestimate both their activity level and the calories they burn during exercise. In my experience, the machines at the gym usually overestimate calories burned as well. For the active person, I've found that plugging 1.2 (the value usually given for a sedentary person) into the equation yields the best chances of determining the appropriate numbers.

Regardless of which food log the patient uses, the total number of calories and calorie deficit (assuming there is one) for the week must be calculated, which will reveal whether or not weight loss corresponds to expectations.

CHANGES IN THE FARE

Patience is a crucial part of the weight-loss process. It may take a little trial and error to create a calorie deficit large enough to achieve noticeable weight loss. Examining the food log with the patient can help identify changes that will be easier to make. Such alterations could be switching from high-fat to low-fat dairy or meat, cutting out the extra sugar in coffee or tea, not eating the bread before dinner, sharing desserts, and avoiding liquid calories (eating whole fruit instead of drinking juice, for instance). Some things are easier to give up than others.

AN ACCURATE ASSESSMENT OF THE AVERAGE CALORIE INTAKE FOR THE WEEK CAN EXPLAIN PLATEAUS AND HELP IN DETERMINING A PATIENT'S REAL BARRIERS TO WEIGHT LOSS.

The food log. Research shows that keeping a food log can double a person's chances of success in losing weight.[3] The format is unimportant; it's necessary to find a way to record food that works for the patient. It's a good idea to measure food accurately, particularly in the beginning, because most people underestimate portion sizes (often to get a little more food in). A food scale is a useful tool for foods such as nuts, snack foods, and even fruit. A measuring cup is easier for foods like rice and pasta. Weighing and measuring are especially valuable for tracking those foods that contribute more calories to the person's diet.

It's important to be as accurate and thorough as possible with record keeping, especially on the "bad" days. Although it's easier to pretend such days never happened, an accurate assessment of the average calorie intake for the week is important because it can explain plateaus and help in determining a patient's real barriers to weight loss. (The calories burned in exercise should *not* be subtracted from the daily total; assuming one has used the Harris–Benedict equation, exercise has already been accounted for.)

There are a number of useful online resources (some of which aren't free), such as CalorieKing (www.calorieking.com), FatSecret (http://fatsecret.com), LiveStrong's free MyPlate calorie counter application (www.livestrong.com/thedailyplate), and SparkPeople (http://sparkpeople.com); for iPhone and iPad users, Lose It! is a popular app.

It's important to consider what might simply be habit, like reaching for chocolate at 3 PM to make it through the afternoon at work. Abstaining from problematic habitual foods for a period of time will help the patient gain some perspective. Food can always be added back in, but usually at least one food habit can easily be changed. Remember, the Weight Watchers dessert after dinner every night is rarely missed as much as one thinks it will be.

Hunger. Another important aspect to consider is hunger. It's common for most people to eat food when they're not hungry, at least on occasion, but they really shouldn't. People fear hunger, but it's actually not a bad or unhealthy feeling in and of itself. And one thing that nobody wants to hear, even if it's true, is that we have to make peace with a little bit of hunger if we want to lose weight. (If someone has diabetes or is hypoglycemic, the message may be a little bit different; it's especially important for them to be armed with sensible emergency snacks, but it's equally important for them to make smart choices at mealtimes in order to prevent blood sugar fluctuations.) Another mistake people make is eating in order to prevent hunger—when one is going to be busy for a period of time, for instance—but it's important to try to eat only when hungry and to stop when satisfied (as opposed

to full). One tool nurses can give patients to help them think about hunger in a new way is a 10-point hunger scale, which they can use to rank their hunger from 1 (ravenous) to 10 (Thanksgiving full). Nurses can help patients create such a scale, using their own words and even referencing their memories or occasions on which they'd felt sick to devise descriptors. Here's one scale that's seen on many Internet weight-loss sites:

1) Insatiably hungry
2) Seriously hungry
3) "Stomach growling" hungry
4) Slightly hungry
5) No longer hungry but not yet satisfied
6) Comfortably satisfied
7) Starting to feel full
8) Feeling quite full
9) Starting to get a stomach ache from so much food
10) In actual pain from overeating

It can also be helpful for patients to make notes about their emotional state or what's happening at the time that—irrespective of hunger—might be influencing a desire to eat. Although a discussion of eating disorders, especially bulimia (binge eating) and bulimia nervosa (binging and purging), is beyond the scope of this article, they can be devastating—even fatal—and can render the techniques described here less effective. Nurses should be aware of the possibility of such disorders and their treatment as they assess patients who are looking to lose weight.

Managing expectations. It's important to be realistic about how much a person should expect to lose. Women can expect to lose 0.5 to 2 lbs. per week, which requires a deficit of at least 1,750 calories per week (or 250 calories a day). Men will lose weight faster, generally 1 to 3 lbs. per week. The difference is due to size and muscle mass. There's no point in trying to speed up the weight-loss process. Attempting to lose weight too quickly often results in impractical and unsustainable eating behaviors that can make the dieter tired and irritable. Also, losing too much weight too fast might indicate a loss of water or muscle—and not fat, which is the goal. That said, if it seems like the body isn't responding the way it should, an examination of thyroid function may be in order.

Support. It can be useful for the patient to find someone to be accountable to in using a log. It's common for patients to ask a friend or family member to provide support during weight loss. A nutrition professional can also be helpful. (The American Dietetic Association Web site [www.eatright.org] has a section to help in finding a dietitian nearby; click on "Find a Registered Dietitian" and enter your zip code.)

The timing of meals isn't nearly as important as most people believe. A classic dieting tactic is to avoid food after a certain point in the evening, but as long as the total calorie intake for the day is in deficit, the weight will still come off. One thing that successful dieters regularly report is that they eat breakfast[4]; beyond that, however, how meals are spaced is irrelevant.[5] Whether one eats six small meals or three larger ones, the calorie intake is what matters.

Planning ahead. Failing to plan is planning to fail, or so Winston Churchill supposedly said. Patients often find it difficult to maintain their weight during periods of extreme stress, travel, vacation, or holidays. They should be encouraged to plan for the week's meals, shopping for groceries and cooking when there's time. Also, it's better to take healthful, measured snacks along when leaving the house, to prevent last-minute desperate purchases. And it's often possible to look at a restaurant's menu before dining out to make a plan and adjust calories as needed leading up to the evening out.

Stepping on the scale. It's necessary that the patient decide how frequently to get on the scale. A study by Wing and colleagues showed that weighing daily resulted in more successful and sustained weight loss.[6] The same scale should be used at the same time every day. Weight can fluctuate for many reasons: water retention or loss (as a result of sodium and carbohydrate intake), hormones, exercise (muscle soreness can result in water retention), constipation, or medications.

THE BOTTOM LINE

In the end, there's no easy solution to losing weight. It requires math, trial and error, planning, preparation, and accountability. Making reasonable, sustainable changes is the secret to long-term success. Patients should be taught to tune into hunger; keep a log; plan ahead; set reasonable, moderate goals; sleep more; be active; and perhaps most important, be patient. ▼

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