



Shape Up America! Newsletter

Treating Obesity in 12 to 18 Year Olds

by Barbara J. Moore, PhD

The medical journal, *Pediatrics*, published a series of articles¹⁻⁴ on the assessment,¹ treatment² and prevention³ of childhood obesity. Treatment of younger children, was covered in the [October](#) and [November](#) 2008 issues of this newsletter and in detail in the treatment report published in *Pediatrics*.² This article is the last in our series on pediatric obesity treatment and briefly summarizes the recommended treatment of 12 to 18 year olds — a broad age range that covers a period of rapid social and emotional development and increasing autonomy.

The treatment approach for 12-year-olds, who eat most meals at home and are more strongly influenced by parents and family, will be very different than for older teens, who eat many meals outside the home and make fundamental lifestyle decisions for themselves. For example, in older teens, assessing readiness to change is important. Overweight teens who are ready for weight loss may choose ineffective over-the-counter drugs, purging or other dangerous self-help strategies to address a weight problem. To keep teens safe, parents and health care providers should be aware of the various steps in the treatment process recommended for this age group.

Step 1: The first step in the treatment process for 12 to 18 year olds is [assessment](#) based on precisely measured height and weight and calculation of body mass index (BMI). Some teens who have a normal BMI or who are underweight have a distorted self-image and perceive themselves as overweight. Using objective criteria to discuss what constitutes a healthy weight may be a valuable tool in reshaping a teen's impaired self-image.

Step 2: Determine the gender- and age-specific [BMI percentile](#) and mark it on the teen's personal BMI growth chart. Compare the current BMI percentile to that from previous years to see if a trend is emerging. Although you can expect some variation from year to year, growth should track, or follow a certain percentile, reasonably well over time.

Step 3: Use the BMI percentile to determine the teen's current weight category and to choose the appropriate treatment path for that category as shown in the table below. An explanation of the treatment strategies for the different weight categories follows this table.

BMI Percentile	Category	Treatment Strategy
< 5th Percentile	Underweight	Professional monitoring (especially important if there is a downward trend, which may signal an eating disorder or other

		medical problem)
5th to 84th Percentile	Normal weight	Prevention and at least yearly assessment of BMI percentile, noting trends either upward or downward
85th to 94th Percentile	Overweight	Prevention Plus; advance to Structured Weight Management after 3-6 months if BMI percentile increasing, medically warranted and/or if parental obesity present. Goal is to <i>maintain weight</i> with growth of teen until BMI is < 85th percentile, or slow weight gain to achieve a downward trend in BMI percentile
95th to 99th Percentile	Obese	Prevention Plus; advance to Structured Weight Management after 3-6 months if BMI percentile increasing, medically warranted and/or if parental obesity present. Goal is to <i>lose weight</i> until BMI is < 85th percentile (See note)
> 99th Percentile	Obese	Prevention Plus; advance to Structured Weight Management after 3-6 months if no improvement, then advance to Comprehensive Multidisciplinary Intervention after 3-6 months if medically warranted and/or if parental obesity present. Goal is to <i>lose weight</i> (See note). Advancement to Tertiary Care Interventions may be warranted if comorbidity is present

Note: The expert committee treatment report² states that for obese teens, the rate of weight loss should not exceed 2 pounds per week. If weight loss exceeds this rate, the health care provider should evaluate further for causes of excessive weight loss.

Underweight: Teens who are underweight should be evaluated by a qualified health care professional. Although it can be expected that some very thin teens are perfectly normal, to be on the safe side, professional evaluation of teens at the 5th percentile or below is needed to rule out the possibility of eating disorders, distorted self image or some other medical or developmental problems that should be addressed.

Normal weight: As for all children, the growth pattern of normal weight teens should be monitored by assessing them yearly and plotting BMI percentile on the teen's BMI growth chart. Although you can expect BMI percentile to vary from year to year, annual updating of the teen's growth charts permits detection of an unusually large change that may signal unhealthy weight gain (or loss). *Prevention:* Strategies to prevent unhealthy/excessive weight gain in normal weight teens are discussed in detail in the prevention report.³ They include playing and being physically active for 60 minutes or more per day; limiting TV and other sedentary recreation to no more than 2 hours per day; removing TV from the bedroom; eating 5 or more servings of fruits and vegetables per day plus other healthful foods (whole grains, lean meats, eggs, fish, poultry and low fat or fat free dairy) needed for growth; limiting or eliminating soda, pop or other sugar-sweetened beverages and fruit drinks; limiting eating out; starting each day with a healthy breakfast; enjoying regular family meals and activities that involve the whole family.

Overweight (85th-94th percentile): More frequent professional monitoring of weight status and lifestyle (every 3-6 months) of overweight teens is needed, particularly if medical issues or parental obesity are present; this is referred to as *Prevention Plus*. To the basic *Prevention* strategies described above, *Structured Weight Management (SWM)* may be added that targets the entire family rather than the teen. Thus, family readiness to change must be assessed, and for older teens

who are more autonomous, individual readiness must be determined. If ready, *SWM* involves structured daily meals and snacks that emphasize healthful foods that are low in calories yet high in nutritional quality; limiting meals taken outside the home, including fast food. Further reductions in daily TV and other sedentary recreation to no more than 1 hour per day may be needed. It is helpful to keep a [diary of daily physical activity](#) and all foods and beverages with amounts consumed at home and when eating out. Food diaries should be monitored by a qualified health care professional, usually a registered dietitian (RD), but sometimes a physician or nurse practitioner with appropriate training. The emphasis is on healthy lifestyle change for the entire family. (*Note: A teen who steadily tracks in the overweight range, i.e., no upward trend in BMI percentile, and has no medical or family risks is likely to be at low risk for excess fat. This teen can remain on the regular prevention strategy that applies to normal weight teens*)

Obese (95th - 99th percentile): The treatment progression for obese teens is similar to that for overweight teens described above, but monthly follow up with assessments is recommended. If progress is not made after 3-6 months, conduct family (and teen) assessment of readiness to change (see details in prevention report³) and move to *SWM* if family is ready. Greater support, increased structure of daily routine for both healthy eating and exercise, and greater oversight of eating and activity to insure compliance is recommended. Reinforcement for the achievement of behavioral goals is suggested. Lack of improvement may warrant advancement to *Comprehensive Multidisciplinary Intervention*, which is briefly explained below.

Obese > 99th percentile: For these teens, in addition to the above treatment strategies, a *Comprehensive Multidisciplinary Intervention (CMI)* strategy may be warranted. The CMI team might include a specially trained psychologist, exercise specialist, nurse practitioner and/or dietitian in addition to a physician. *CMI* is marked by increased intensity of behavioral change strategies, frequency of visits (initially weekly for a minimum of 8-12 weeks, and then tapering off to at least monthly) for professional monitoring that includes assessment, counseling and guidance, and service delivery by appropriately trained specialists. The five components of *CMI* are: 1) parental involvement; 2) assessment of family and teen lifestyle and BMI (or body fat) status; 3) behavioral change plan that includes goal setting and training in anticipating challenges and problem solving; 4) parent/caregiver training; 5) specific diet and activity interventions that result in negative energy balance (i.e., calories expended exceed calories consumed) while safeguarding nutritional quality and avoiding a rate of weight loss that exceeds 2 pounds per week.

High risk *Tertiary Care Intervention (TCI)* may be warranted for an obese teen who is afflicted with obesity comorbidities (e.g., type 2 diabetes) provided the teen fully understands the possible risks of treatment and possesses the maturity to responsibly engage in both the treatment process and necessary follow-up. *TCI* may involve meal replacements, very-low-energy diets, medications or even bariatric surgery, which carries significant risk even under an experienced doctor's supervision. The treatment report² provides more details.

The scientific evidence on the recommended components of treatment of teens is of variable quality. The staged approach to treatment is a responsible one that is based on the best evidence currently available. As the evidence strengthens with more research, refining these guidelines by subdividing teens into at least two groups, based on age or level of maturity, may eventually become possible. In conclusion, health care professionals who treat overweight and obese children of any age are reminded to:²

1. Encourage healthy behaviors in their patients and their families
2. Employ motivational techniques for patients and their families ready for lifestyle change
3. Establish office systems that support monitoring and ongoing care
4. Implement a staged approach to interventions as described above
5. Tailor the intervention to the individual child and family

Barbara J. Moore, PhD, is President and CEO of Shape Up America!

[References](#)

Motivating Teens to Get Moving

by Josh Trout, PhD

Being physically active for at least 60 minutes every day is especially crucial for children struggling with weight issues. One of the goals of physical education teachers is to introduce children to a wide range of activities and skills so that each can find something physically active that they enjoy doing every day for the rest of their lives. Physical education teachers want youth to love and embrace physical activity.

Many overweight children report having bad experiences in physical education, not because of the curriculum, but because they are often concerned about how their peers perceive them in physical education. This can be a barrier to enjoying activity and can discourage participation. Overweight and obese youth carry social, psychological and emotional burdens that often lead to anger, despair, and ultimately, a sedentary lifestyle. One example is picking teams. Overweight youth dread being picked last, so a more sensitive approach is for an adult to set up the teams in advance to avoid a potentially humiliating experience.

Teens should be encouraged to take responsibility for their own health by making wise nutritional choices and engaging in the recommended 60 minutes of physical activity per day. This does not necessarily mean joining a gym to attend high-intensity cardio-sculpting classes. Some research indicates that many overweight teens prefer to exercise in private so their peers do not see them.¹ There are many activities that an emerging exerciser can participate in at home so that adopting healthier habits does not come with a social or financial price tag. It does, however, require active decision-making and personal goal setting.

Some possibilities are exergaming (e.g., Nintendo® Wii™, Dance Dance Revolution) at home, renting a yoga DVD to follow in private, or even taking a peaceful nature hike. If exercising with others is more motivating or just more fun, options include walking, jogging or bicycling with friends, taking classes such as martial arts or Yogalates (Yoga + Pilates), or even volunteering as a dog walker at the Humane Society.

Teens should avoid anything that advertises a quick solution such as an exercise

machine promising the body of your dreams in just a few weeks, a new diet that can shed 30 pounds in 30 days, or a pill that boosts your metabolism and claims to allow you to lose weight while you sleep or eat whatever you want. The vast majority of over-the-counter pills and supplements for weight loss are untested and ineffective; some are dangerous. Some exercise machines are expensive yet poorly designed, and consequently, are hard on your back. If you are determined to invest in a piece of exercise equipment, studies show that a treadmill is most likely to be of value in a home-based setting, but these studies have been conducted in adults and may not apply to teens.

Proper nutrition combined with daily physical activity is the safest, most effective long-term weight loss/maintenance plan. Weight loss goals vary slightly depending on a teen's current weight category (see *Treating Obesity in 12 to 18 Year Olds*, above), but for those who need to lose weight, a reasonable goal is a gradual weight loss of about 1 pound per week. This may sound too slow for some, but consider this: With 52 weeks in a year, it is possible to lose 52 pounds by this time next year. If a person takes it slow and adopts healthier habits along the way, the weight loss achieved is more likely to be permanent.

The greatest weapon in battling the obesity epidemic is education. Overweight youth must learn what foods to choose, as well as the principles of portion control. Daily physical activity is simply a health requirement. Teens learn healthful practices from parents and teachers who *value and role-model* these behaviors. It is not unlike teaching children to buckle their seat belts, brush their teeth, or avoid tobacco; it is a lifestyle choice that must be taught by people who practice these behaviors.

The human body is like a high-performance race car: If you fill it with low-quality fuel and park it, it will deteriorate. If it receives racing fuel and driving time on the track, it thrives. The human body also needs good fuel (proper nutrition) and movement (daily physical activity) to achieve and maintain optimal health and wellness throughout the lifespan. By learning these lessons, teens will be more likely to achieve and maintain optimal health and wellness throughout their lifespan.

Josh Trout, PhD, is assistant professor in the Department of Kinesiology at California State University, Chico, and is the author of the recently released book, [Supersized PE: A Comprehensive Guidebook for Teaching Overweight Students](#) by the National Association for Sport and Physical Education (NASPE).

[References](#)

Green and Lean

by **Barbara J. Moore, PhD**



This is the first article in a series on how you can shrink your carbon footprint, as well as your [waistline](#) without vaporizing your money — and in today's economy, that's a smart move. To accomplish this, a good place to start is your food budget. Food is one place where we can really trim the fat — by preparing meals at home and eating greener and smarter. Here are some things you can do to go green and lean:

1. **Side step the nonessentials**, like soda/pop, beer, candy, cookies, cakes and chips. Sit down and figure out how much money you are spending on such products each year, and calculate the savings in dollars, not to mention the savings in calories, if you cut way back. You'll likely be in for a big surprise. The savings in product packaging that does not wind up in a landfill is an added bonus.
2. **Eat in instead of out**. Even fast food is a budget buster and often involves plastics and other packaging that is used once and then discarded. The fast food value meals may be cheap today, but expensive tomorrow when you are faced with the costs of treating obesity and diabetes that are linked to a poor diet. Because they depend on a constant flow of massive quantities of uniform types of food (corn-based sweetener for soda, a single type of potato for French Fries, or mountains of beef for burgers), fast food chains are necessarily linked to industrial or factory farming techniques and the loss of many varieties of vegetables and fruit.

To meet the enormous demand for fast food, agricultural production is focused on single crop farming and large animal feedlots or caged poultry that produce massive amounts of animal and other chemical and biological wastes that are polluting our air, rivers and streams. Studies show a lower-calorie intake and improved nutritional profile for meals prepared at home, so if you can cut back on eating out and learn to shop only once a week for your groceries, you will gain several benefits. In addition to consuming fewer calories, you will begin to influence agricultural production, reduce materials required for packaging fast foods, and save on gasoline, thereby reducing carbon emissions and saving dollars.

3. **Cut down on convenience foods**. Although roasted chickens, deli salads and pre-washed salad greens are time-savers, they cost a bundle and almost always involve packaging that winds up in a landfill. Instead, you can develop your own homemade convenience foods and store them in green reusable containers that don't wind up in the garbage. Purchase a fresh head of lettuce and wash the leaves in cold water, yourself. Thoroughly dry them and store them wrapped loosely in a paper towel, inside a plastic bag. Place in the refrigerator vegetable bin, so they will stay crisp and ready for your use throughout the week. Prepare soups and stews on weekends and enjoy them throughout the week to save both time and money. Home-prepared foods are likely to be lower in calories than their store-bought counterparts.
4. **Eat more plants and fewer animals**. Animal protein is high in quality and nutritious, but there is no doubt that a plant-based diet is literally greener and requires less energy (fossil fuels) to produce. Reductions in massive agricultural animal production will reduce the required antibiotic usage in factory farms and cut down on animal waste and other contaminants that run off into our ground water. So start collecting new recipes for low-cost beans and legumes and other vegetarian fare, and use meat sparingly. These are strategies that are consistent with effective weight management since the vast majority of plant foods are naturally low in fat and, thus, less energy (or calorie) dense than animal foods, especially when plant foods are prepared at home with minimal fats or oils.
5. **Start now to plan a garden** so you will be ready when spring comes. What could be greener? You can grow your own fresh produce or at least some fresh

herbs in a window box. A diet composed of more veggies is less energy dense and helpful for weight management. An additional lean benefit is that gardening is a great way to exercise and burn calories.

6. **Replace calorie-rich soda with water**, preferably from the tap. If you really want the convenience of portable bottled water, buy a reusable (greener) bottle from a sporting goods store. If you object to the taste of your local tap water, invest in a water filter, such as [Brita®](#), that will improve the taste and still save you money compared to buying bottled water.
7. **Contact [Shape Up America!](#)** with more green and lean ideas that we can share with our readers.

Menus for Weight Loss and Healthy Eating

Shape Up America! offers these simple, convenient [1500 calorie](#) and [2000 calorie](#) menus to help you eat healthfully while controlling your calories.

Recipe of the Month

This unique recipe combines vegetables with fruit, along with a curry-yogurt dressing for a tasty and different type of chicken salad.

Curried Chicken Salad

Makes 4 servings

INGREDIENTS:

- 1 1/2 cups cooked chicken, skin removed, cubed
- 1/4 cup carrots, peeled and grated
- 1/4 cup celery, peeled and chopped
- 1 cup red cabbage, shredded
- 1/4 cup granny smith green apple, chopped
- 1/4 cup scallions, trimmed and chopped
- 1/4 cup raisins
- 1/8 teaspoon celery seed

For dressing:

- 1 cup plain, non-fat yogurt
- 1 Tbsp. non-fat mayonnaise
- 3 tsp. curry powder
- 3 Tbsp. fresh lemon juice
- Salt and freshly ground pepper to taste
- 1 Tbsp. Dijon-style-style mustard
- 2 Tbsp. shallots, finely chopped

DIRECTIONS:

1. Combine chicken, carrot, celery, raisins, shredded cabbage, apple, scallions and celery seed in a bowl.
2. Combine all dressing ingredients with whisk in bowl. Pour over salad, mix well. Cover and refrigerate one hour.
3. To serve, place on a bed of greens such as lettuce combined with shredded red and green cabbage.

Nutritional analysis per serving: 185 calories, 2.5 grams total fat, 0.5 gram saturated fat, 20 grams carbohydrate, 21 grams protein, 2 grams dietary fiber, 300 milligrams sodium, 150 milligrams calcium.

Source: [Shape Up America!](#)

e-mail: newsletter@shapeup.org
phone: 406-686-4844
web: <http://www.shapeup.org>

Feel free to forward this newsletter to friends or colleagues (click on Forward e-mail below). If you have not yet signed up for your own FREE monthly online subscription, or would like more information on Shape Up America!, go to <http://www.shapeup.org>. Email addresses are maintained solely for newsletter use. Shape Up America! will not sell, rent, or share your address with a third party for non-newsletter purposes. Past issues are available at our [newsletter archive](#).

Editor: Adrienne Forman, MS, RD