

Yoga Therapy for Obesity

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Disease/Condition Description

The terms “overweight” and “obesity” refer to a person’s overall body weight and where the extra weight comes from. Overweight is having extra body weight from muscle, bone, fat, and/or water. Obesity is having a high amount of extra body fat. The most useful measure of overweight and obesity is the body mass index (BMI). BMI is based on height and weight and is used for adults, children, and teens.

Millions of Americans and people worldwide are overweight or obese. Being overweight or obese puts you at risk for many diseases and conditions. The more body fat that you carry around and the more you weigh, the more likely you are to develop heart disease, high blood pressure, type 2 diabetes, gallstones, breathing problems, and certain cancers.

A person’s weight is a result of many factors. These factors include environment, family history and genetics, metabolism (the way your body changes food and oxygen into energy), behavior or habits, and other factors.

Certain things, like family history, can’t be changed. However, other things—like a person’s lifestyle habits—can be changed. You can help prevent or treat overweight and obesity if you:

- Follow a healthful diet, while keeping your calorie needs in mind
- Are physically active
- Limit the time you spend being physically inactive

Weight loss medicines and surgery also are options for some people who need to lose weight if lifestyle changes don’t work.

Outlook

Reaching and staying at a healthy weight is a long-term challenge for people who are overweight or obese. But it also can be a chance to lower your risk of other serious health problems. With the right treatment and motivation, it’s possible to lose weight and lower your long-term disease risk.

Obesity is a worldwide health hazard. Millions of people of every age are carrying excessive weight on their bodies. The most frightening aspect of obesity is that it shortens the life span, causes arteriosclerosis, coronary heart troubles, hypertension (high blood pressure), various physical-mental (psychosomatic) ailments and disorders, and makes the life of the person miserable because complications develop such as diabetes, indigestion, gastrointestinal disorders, sexual incapacitation, and an inferiority complex.

To better understand the problems related to obesity, we must differentiate it from overweight. Overweight is not obesity, but every obese person is overweight. Being overweight means carrying only a few pounds of extra weight than the body frame requires. In case of overweight, though there is unwanted and extra weight, it may not be quite excessive. For example, if an adult of average height carries five to ten pounds of extra weight, he is overweight but not obese.

Unlike one who is overweight, the obese person's weight becomes almost static. Any adult of average height carrying more than ten extra pounds for years is obese. This excessive weight begins to strain all the bodily organs constantly and, as a consequence, the individual faces health hazards. The preceding charts show what the average weight of men and women should be.

Though obesity causes the same disproportionate accumulation of fat in men and women, there is some variation in them. In women, fat generally accumulates around the hips and in the thighs. In men, this accumulation is mostly in the abdominal area. But in the course of time, in chronic cases of obesity this accumulation of fat and muscle is not just localized, but covers the whole body.

Brief Description of Condition (Pathophysiology and causes from both the western model, and if different, the yogic model)

Obesity means excessive body weight. This imposes unnecessary strain on the body's various physiological systems, especially the heart, circulatory, respiratory and eliminative systems, and predisposes the person to the development of many serious metabolic diseases, including diabetes, hypertension, heart disease and arthritis. In addition it leads to lowered vitality, mental dullness and depression.

The most common cause of obesity is overeating, pure and simple. The problem is not only too much food, but also that the wrong type of food is taken. A diet composed of excessive oil, spices, starches, sugars, and refined products leads to excess weight, while a diet based on natural grains, fruit and vegetables leads one automatically towards correct body weight and optimal health.

Obesity occurs especially in two types of people. Firstly, in the competitive, passionate, acquisitive person who eats quickly and in excess, using food as channels to release pent-up mental energy, unfulfilled ambitions and desires. Here there is an excess of rajas guna or the activating principle in the personality. Secondly, in the housebound person, who eats and eats from boredom. Here there is an excess of tamas guna, the principle of inertia where lethargy and dullness predominate. As people put on weight, they tend to become even less happy with themselves and their appearance, and thus eat still more. In general we can say that overeating is due to frustration, where unfulfilled creative energy becomes wrongly channeled into excessive desire for food.

All obese people suffer from glandular deficiency in that their endocrine glands cease to function correctly, leading to mental, emotional and hormonal imbalance. A small number of obese people, however, suffer from a primary glandular disturbance or imbalance, say of thyroid, adrenal, or reproductive glands.

Signs and Symptoms

1. These people are addicted to overeating,

2. They eat most of the time,
3. All of them, without exception, eat fast without chewing food properly,
4. They retire soon after dinner,
5. They either purposely avoid or do not have time to do physical labor and exercises.

Weight gain usually happens over time. Most people know when they've gained weight. Some of the signs of overweight or obesity include:

- Clothes feeling tight and needing a larger size.
- The scale showing that you've gained weight.
- Having extra fat around the waist.
- A higher than normal body mass index and waist circumference.

Common Medical Treatments

Successful treatments for weight loss include setting goals and making lifestyle changes such as eating fewer calories and being more physically active. Drug therapy and weight loss surgery are also options for some people if lifestyle changes don't work.

Set Realistic (“Do-able”) Goals

Setting the right weight loss goals is an important first step to losing and maintaining weight.

For Adults

- Lose just 5 to 10 percent of your current weight over 6 months. This will lower your risk for heart disease and other conditions.
- The best way to lose weight is slowly. A weight loss of 1 to 2 pounds a week is do-able, safe, and will help you keep off the weight. It also will give you the time to make new, healthy lifestyle changes.
- If you've lost 10 percent of your body weight, have kept it off for 6 months, and are still overweight or obese, you may want to consider further weight loss.

For Children and Teens

- If your child is overweight or at risk of overweight, the goal is to maintain his or her current weight and to focus on eating healthy and being physically active. This should be part of a family effort to make lifestyle changes.
- If your child is overweight and has a health condition related to overweight or obesity, your doctor should refer you to a pediatric obesity treatment center.

Lifestyle Changes

For long-term weight loss success, it's important for you and your family to make lifestyle changes:

- Focus on energy IN (calories from food and drinks) and energy OUT (physical activity)
- Follow a healthy eating plan
- Learn how to adopt more healthful lifestyle habits

Over time, these changes will become part of your everyday life.

Calories

Cutting back on calories (energy IN) will help you lose weight. To lose 1 to 2 pounds a week, adults should cut back their calorie intake by 500 to 1,000 calories a day.

- In general, 1,000 to 1,200 calories a day will help most women lose weight safely.
- In general, 1,200 to 1,600 calories a day will help most men lose weight safely. This calorie range is also suitable for women who weigh 165 pounds or more or who exercise routinely.

These calorie levels are a guide and may need to be adjusted. If you eat 1,600 calories a day but don't lose weight, then you may want to cut back to 1,200 calories. If you're hungry on either diet, then you may want to boost your calories by 100 to 200 a day. Very low-calorie diets of less than 800 calories a day shouldn't be used unless your doctor is monitoring you.

For overweight children or teens, it's important to slow the rate of weight gain; however, reduced-calorie diets aren't advised before you talk to a health care provider.

Healthy Eating Plan

A healthy eating plan gives your body the nutrients it needs every day. It has enough calories for good health, but not so many that you gain weight.

A healthy eating plan also will lower your risk for heart disease and other conditions. A plan low in total, saturated, and *trans* fat; cholesterol; and sodium (salt) will help to lower your risk for heart disease. Cutting down on fats and added sugars also can help you eat fewer calories and lose weight. Healthful foods include:

- Fat-free and low-fat milk and milk products such as low-fat yogurt, cheese, and milk.
- Lean meat, fish, poultry, cooked beans, and peas.
- Whole grain foods such as whole wheat bread, oatmeal, and brown rice. Other grain foods like pasta, cereal, bagels, bread, tortillas, couscous, and crackers.
- Fruits, which can be canned (in juice or water), fresh, frozen, or dried.
- Vegetables, which can be canned (without salt), fresh, frozen, or dried.

Canola or olive oils and soft margarines made from these oils are heart healthy. They should be used in small amounts because they're high in calories. Unsalted nuts, like walnuts and almonds, also can be built into a healthful diet as long as you watch the amount you eat, because nuts are high in calories.

Foods to limit. Foods that are high in saturated and *trans* fats and cholesterol raise blood cholesterol levels and also may be high in calories. These fats raise the risk of heart disease, so they should be limited.

Saturated fat is found mainly in:

- Fatty cuts of meat such as ground beef, sausage, and processed meats such as bologna, hot dogs, and deli meats
- Poultry with the skin
- High-fat milk and milk products like whole-milk cheeses, whole milk, cream, butter, and ice cream
- Lard, coconut, and palm oils found in many processed foods

Trans fat is found mainly in:

- Foods with partially hydrogenated oils such as many hard margarines and shortening
- Baked products and snack foods such as crackers, cookies, doughnuts, and breads
- Food fried in hydrogenated shortening such as French fries and chicken

Cholesterol is found mainly in:

- Egg yolks
- Organ meats such as liver
- Shrimp
- Whole milk or whole-milk products, including butter, cream, and cheese

Limiting foods and drinks with added sugars, like high-fructose corn syrup, is important. Added sugars will give you extra calories without nutrients like vitamins and minerals. Added sugars are found in many desserts, canned fruit packed in syrup, fruit drinks, and soft drinks. Check the nutrition label on food packages for added sugars like high-fructose corn syrup. Drinks with alcohol also will add calories, so it's a good idea to watch alcohol intake.

Portion size. A portion is the amount of food that you choose to eat for a meal or snack. It's different from a serving, which is a measured amount of food and is noted on the nutrition label on food packages.

Anyone who has eaten out lately is likely to notice how big the portions are. In fact, they're oversized. These ever-larger portions have changed what we think of as normal. Cutting back on portion size is a good way to help you eat fewer calories and balance your energy IN.

Food weight. Studies have shown that we all tend to eat a constant “weight” of food. Ounce for ounce, our food intake is fairly constant. Knowing this, you can lose weight if you eat foods that are lower in calories and fat for a given measure of food. For example, replacing a full-fat food product that weighs 2 ounces with one that's the same weight but lower in fat helps you cut back on calories. Another helpful practice is to eat foods that contain a lot of water like vegetables, fruits, and soups.

Physical Activity

Staying active and eating fewer calories will help you lose weight and keep the weight off over time. Physical activity also will benefit you in other ways. It will:

- Lower the risk of heart disease, diabetes, and cancers (such as breast, uterus, and colon)
- Strengthen your lungs and help them to work better
- Strengthen your muscles and keep your joints in good condition
- Slow bone loss
- Give you more energy
- Help you to relax and cope better with stress
- Allow you to fall asleep more quickly and sleep more soundly
- Give you an enjoyable way to share time with friends and family

In general, adults should follow these guidelines in relation to physical activity.

- For overall health and to lower the risk of disease, aim for at least 30 minutes of moderate-intensity physical activity most days of the week.
- To help manage body weight and prevent gradual weight gain, aim for 60 minutes of moderate-to-vigorous intensity physical activity most days of the week.
- To maintain weight loss, aim for at least 60 to 90 minutes of daily moderate-intensity physical activity.

In general, children and teens should aim for at least 60 minutes of physical activity on most, if not all, days of the week.

Many people lead inactive lives and may not be motivated to do more physical activity. Some people may need help and supervision when they start a physical activity program to avoid injury.

If you're obese, or if you haven't been active in the past, start physical activity slowly and build up the intensity a little at a time. When starting out, one way to be active is to do more "everyday" activities such as taking the stairs instead of the elevator and doing household chores and yard work. The next step is to start walking, biking, or swimming at a slow pace, and then build up the amount of time you exercise or the intensity level of the activity.

To lose weight and gain better health, it's important to get moderate-intensity physical activity. Choose activities that you enjoy and that fit into your daily life. A daily, brisk walk is an easy

way to be more active and improve your health. Use a pedometer to count your daily steps and keep track of how much you're walking. Try to increase the number of steps you take each day.

Other examples of moderate-intensity physical activity include dancing, bicycling, gardening, and swimming. For greater health benefits, try to step up your level of activity or the length of time you're active. For example, start walking for 10 to 15 minutes three times a week, and then build up to brisk walking for 60 minutes, 5 days a week. You also can break up the amount of time that you're physically active into shorter amounts such as 15 minutes at a time.

Behavioral Changes

Changing your behaviors or habits around food and physical activity is important for losing weight. The first step is to understand the things that lead you to overeat or have an inactive lifestyle. The next step is to change these habits.

The list below gives you some simple tips to help build healthier habits.

Change your surroundings. You may be more likely to overeat when watching TV, when treats are available in the office break room, or when you're with a certain friend. You also may not be motivated to take the exercise class you signed up for. But you can change these habits.

- Instead of watching TV, dance to music in your living room or go for a walk.
- Leave the office break room right after you get a cup of coffee.
- Bring a change of clothes to work. Head straight to the exercise class on the way home from work.
- Put a note on your calendar to remind yourself to take a walk or go to your activity class.

Keep a record. A record of your food intake and the amount of physical activity that you do each day will help to inspire you. You also can keep track of your weight. For example, when the record shows that you've been meeting your goal to be more active, you'll want to keep it up. A record is also an easy way to track how you're doing, especially if you're working with a registered dietitian or nutritionist.

Seek support. Ask for help or encouragement from your friends, family, and health care provider. You can get support in person, through e-mail, or by talking on the phone. You also can join a support group.

Reward success. Reward your success for meeting your weight loss goals or other achievements with something you would like to do, not with food. Choose rewards that you'll enjoy, such as a movie, music CD, an afternoon off from work, a massage, or personal time.

Weight Loss Medicines

Weight loss medicines approved by the Food and Drug Administration (FDA) may be an option for some people. If you're not successful at losing 1 pound a week after 6 months of using

lifestyle changes, medicines may help. These medicines should be used only as part of a program that includes diet, physical activity, and behavioral changes.

Weight loss medicines may be suitable for adults who are obese (a BMI of 30 or greater). People who have BMI of 27 or greater and a risk for heart disease and other health conditions also may benefit from medicines.

The FDA has approved two prescription weight loss medicines for long-term use: sibutramine (Meridia®) and orlistat (Xenical®). These medicines cause a weight loss between 4 and 22 pounds, although some people lose more weight. Most of the weight loss occurs within the first 6 months of taking the medicine.

- Sibutramine (Meridia). This medicine sends signals to your brain to curb your appetite. Sibutramine raises blood pressure and pulse. You shouldn't take it if you have high blood pressure or a history of heart disease or stroke.
- Orlistat (Xenical). This medicine reduces the absorption of fats, fat calories, and vitamins A, D, E, and K by the body. Orlistat can result in mild side effects such as oily and loose stools.

The FDA also has approved Alli™, an over-the-counter weight loss aid for adults. Alli is the lower dose form of orlistat. It's meant to be used along with a reduced-calorie, low-fat diet and physical activity. In studies, most people taking Alli lost 5 to 10 pounds over 6 months.

Like orlistat, Alli reduces the absorption of fats, fat calories, and vitamins A, D, E, and K to promote weight loss. It also has similar side effects to orlistat. If you're taking orlistat or Alli, you should take a multivitamin at bedtime due to the possible loss of some vitamins. You also should talk to your doctor before starting Alli if you're taking blood-thinning medicines or being treated for diabetes or thyroid disease.

Combined with healthy eating and physical activity, these medicines can help people lose weight. If you think you would benefit from the prescription medicines, sibutramine or orlistat, talk to your doctor. People taking these medicines need regular checkups with their doctors, especially in the first year after starting the medicine. During checkups, your doctor will check your weight, blood pressure, and pulse and order laboratory tests. He or she also will discuss any medicine side effects and answer your questions.

Other Medicines

Some prescription medicines are used to treat weight loss, but aren't FDA-approved for treating obesity. They include:

- Drugs to treat depression. Some medicines for depression cause an initial weight loss and then a regain of weight while taking the medicine.
- Drugs to treat seizures. Two drugs used for seizures, topiramate and zonisamide, have been shown to cause weight loss. These drugs are being studied to see whether they will be useful in treating obesity.

- Drugs to treat diabetes. Metformin may cause small amounts of weight loss in people with obesity and diabetes. It's not known how this drug causes weight loss, but it has been shown to reduce hunger and food intake.

Over-the-Counter Products

Over-the-counter (OTC) products often claim that a person taking them will lose weight. The FDA doesn't regulate these products because they're considered dietary supplements, not medicines. However, many of these products have serious side effects and aren't generally recommended. A few OTC products include:

- Ephedra (also called ma-huang). Ephedra comes from plants and has been sold as a dietary supplement. The active ingredient in the plant is called ephedrine. Ephedra can cause short-term weight loss. It also has serious side effects. It causes high blood pressure and stresses the heart. In fact, because ephedra poses a serious health risk, the FDA has advised people to stop using dietary supplements that contain it.
- Chromium. This is a mineral that's sold as a dietary supplement to reduce body fat. While studies haven't found any weight loss benefit from chromium, there are few serious side effects from taking it.
- Diuretics and herbal laxatives. These products cause you to lose water weight, not fat. They also can lower your body's potassium levels, which may cause heart and muscle problems.
- Hoodia. Hoodia is a cactus that is native to Africa. It's sold in pill form as an appetite suppressant. However, there is no firm evidence that hoodia works. No large-scale research has been done on humans to show whether hoodia is effective or safe.

Weight Loss Surgery

Weight loss surgery may be an option for people with extreme obesity (BMI of 40 or greater) when other treatments have failed. It's also an option for people with a BMI of 35 or greater who have life-threatening conditions such as:

- Severe sleep apnea (a condition in which your breathing stops or gets very shallow while you're sleeping)
- Obesity-related cardiomyopathy (diseases of the heart muscle)
- Severe type 2 diabetes

Two common weight loss surgeries include:

- Banded gastroplasty. For this surgery, a band or staples are used to create a small pouch at the top of your stomach. This surgery limits the amount of food and liquids the stomach can hold.
- Roux-en-Y gastric bypass. For this surgery, a small stomach pouch is created with a bypass around part of the small intestine where most of the calories you eat are absorbed. This surgery limits food intake and reduces the calories your body absorbs.

Weight loss surgery can improve your health and weight. However, the surgery can be risky depending on your overall health. There are few long-term side effects with gastroplasty; however, you must limit your food intake dramatically. Roux-en-Y gastric bypass has more side effects. These include nausea, bloating, diarrhea, and faintness (which are all part of a condition called dumping syndrome). After Roux-en-Y gastric bypass, multivitamins and minerals may be needed to prevent nutrient deficiencies.

Lifelong medical follow-up is needed after both surgeries. A monitoring program both before and after surgery also is advised to help you with diet, physical activity, and coping skills.

If you think you would benefit from weight loss surgery, talk to your doctor. Ask whether you're a candidate for the surgery and discuss the risks, benefits, and what to expect.

Weight Loss Maintenance

Maintaining your weight loss over time can be a challenge. For adults, weight loss is a success if you lose at least 10 percent of your initial weight and you don't regain more than 6 or 7 pounds in 2 years. You also must keep a lower waist circumference—at least 2 inches lower than your waist circumference before you lost weight.

After 6 months of keeping off the weight, you can think about losing more if:

- You've already lost 5 to 10 percent of your body weight
- You're still overweight or obese

The key to further weight loss or to maintain your weight loss is to continue with lifestyle changes. Adopt these changes as a new way of life. However, if you want to lose more weight, you may need to eat fewer calories and increase your activity level. For example, if you eat 1,600 calories a day but don't lose weight, you may want to cut back to 1,200 calories.

Adults should aim for 60 to 90 minutes of daily moderate-intensity physical activity. Children and teens should aim for 60 minutes of physical activity a day.

Yogic Remedies

1. *Asana*: These are essential to remove blockages, liberate prana, revitalize the mind and activate the endocrine glands. Obese people should be encouraged to practice to their limit, but never to exhaustion. Let them practice with enjoyment, relaxation and awareness, and their problem will fall away. It is not necessary to try to sweat off excess pounds. This is not the way to lose weight. The obese person has poor stamina and willpower and will soon drop out of such a demanding an exhausting exercise. Permanent loss of weight demands a total overhaul of the pranic energy structure of the body and mind. Asanas build up vitality slowly but surely. They rebalance the nervous and endocrine pathways gradually and effortlessly. In

yoga the slimming and rebalancing process occurs on an altogether different level from the gymnastics program aimed at sweating off a few kilograms, at best a temporary measure. Weight will surely reaccumulate quickly unless the psychic and pranic energies are rebalanced and glandular mechanisms readjusted. Best practices are pawanmuktasana and the Shakti bandha series, followed by Surya namaskara. Major asanas, especially useful in balancing the endocrine glands and spinal nerves, can be adopted after some months of daily practice of these simple asana.

2. *Pranayama*: Bhramari and Nadi shodhana are especially useful in awakening diminished vitality. Excessive pranayama, which stimulates appetite, should be avoided. Mild bhasrika helps speed up the metabolism and reduce fat.
3. *Shatkarm*: Neti and kunjaj should be practiced daily, and purna shankhaprakshalana should be practiced once under guidance in an ashram. Laghoo shankhaprakshalana should continue once or twice weekly. These will relieve a clogged up and devitalized digestive system, overtaxed bowels, depleted liver and pancreas. As a result, long forgotten mental and physical lightness; increased vital energy and clarity of mind are again experienced.
4. *Relaxation*: Yoga nidra is essential each day. A negative sankalpa (resolve) should not be adopted, as this is suppressive and may lead to overeating on the rebound. A positive resolve, of a form such as, “My vitality is increasing daily” or “My creative energy is being liberated from food more and more each day” is a powerful means of overhauling a faulty, uninspired lifestyle.
5. *Sun Bathing Practices*: During summer month it is recommended to bath whole body in the morning until 10AM, in winter season between noon and 2PM, up to 15 minutes per day.
6. *Water Therapy*: Clients should take full bath for 15 minutes in the morning daily. Half bath is recommended before taking food and before going to sleep with cold or lukewarm water: At first wash your genital organs then hands up to elbow and legs up to knees then rinse your mouth, splash the water on the ice and face at least 12 times, and wash ears and the neck.
7. *Fasting*: Fasting with or without water is recommended on ekadashi days (the 11th day after full moon and new moon).
8. *Diet*: Fasting is not recommended for obese people as it is extremely difficult to maintain a proper fasting program, free from the inevitable rebound reflex of overeating. Rather the daily diet should be made wholesome with simple food, regular meal times and no snacks in-between. Sugar, sweets, oils, spice, milk and milk products, rich and refined foods, which overtax the liver, digestion and heart, should be vastly reduced, in favor of vegetarian foods like whole grains, fruit and green vegetables. All kind of fresh fruits are acceptable. A lot of diluted lemon juice and increased filtered water intake up to 160 oz is recommended. For sweetener it is acceptable to eat honey up to 3 spoons a day.

Principles and Requirements of Eating:

1. The first and most important principle is to eat slowly after chewing and crushing the food thoroughly.
2. The second vitally important principle is to finish eating (especially dinner) at least two hours before sleeping at night.
3. The third and most important principle is: Never eat more than eighty-five percent of your capacity at any time. Always eat a little less than you need.
4. Avoid drinking water while eating. Drink water half an hour after eating. Take ten to fifteen glasses of fresh water in twenty-four hours.

5. Do not eat fatty, fried, and highly seasoned food. Avoid hot spices, pickles, chutney, and sweets. Prepare your food with the least amount of spices for flavor.
6. Eat only four times in twenty-four hours: breakfast in the morning, lunch at noon, some light refreshment in the afternoon, and dinner at night. Avoid eating anything in between.

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