



Understanding Your Obesity Treatment Options

An educational resource provided by



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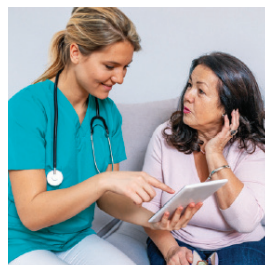
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UNDERSTANDING YOUR OBESITY TREATMENT OPTIONS

Understanding how weight impacts your health is important. It is also important to know that treating obesity is not something you need to face alone. Weight and weight-loss are complex issues. However, weight-loss as small as 5% has been shown to have health benefits. Your healthcare provider can help you better understand the different reasons for weight gain, as well as the best options for your weight-loss journey.

A variety of obesity treatment options exist. It can be confusing to know where to begin. Often, it is best to have a combination of methods in your weight-loss plan. There is no single miracle treatment, no matter how promising the ads can be. Your healthcare provider will work with you to select lifestyle modifications and other weight-loss tools to help make your weight-loss and management efforts successful.

Please Note: Before starting any weight management option, please see a healthcare provider. Together, you can discuss options and select the ones that best fit you and your lifestyle.





To help you learn about available options, this brochure looks at the most common ones available today that include:

- Behavior Modifications
- Health and Nutrition
- Community-based Programs
- Commercial Weight-loss Options
- Physician-supervised Options
- Bariatric Surgery and Devices



If you do not have a healthcare provider who specializes in treating obesity, please visit the Obesity Care Providers website, powered by the Obesity Action Coalition, to find an Obesity Care Provider in your area. To locate a provider today, visit **ObesityCareProviders.com**

BEHAVIOR MODIFICATION

Choosing what you eat and do each day are examples of your behaviors. They include nearly every decision you make and can greatly impact your health. Do you grab a quick bite from a fast food restaurant or pack a healthy lunch? Do you make time to exercise? Are your behaviors influencing your family's behaviors too? This section discusses easy ways you can make healthy lifestyle choices. Changing behaviors that may have contributed to weight gain is one way to improve your weight and health — either alone or with other obesity treatment options.

Healthy lifestyle options include:

- **Self-monitoring**
- **Physical activity**
- **Support groups**

Understanding Health and Nutrition

Most people do not spend time thinking about the complex systems that make up our bodies. We may not take the time to think about how the food we eat and the physical activity we do can either help or harm our body depending on our choices. Learning more about your body and how to properly nourish it are essential for improved health and weight. There are a variety of ways to learn more, including:

Talking to Your Healthcare Provider (HCP) – Discussing your weight with your HCP is a great first step. It is important to be prepared for this visit; here is a list of things to bring for your discussion:

- A food journal that shows all foods and beverages you consumed for one week.
- A list of any and all physical activity for that same period of time.
- A list of any and all medical conditions you have as well as ones in your family history, including type 2 diabetes, heart disease, etc.

- A list of all prescription medications, over-the-counter medications, vitamins and supplements you take on a regular basis. (Your pharmacy can print a list of the prescription medications you take, but you will likely need to add the others unless the pharmacy knows about them as well.)

Meeting with a Registered Dietitian (RD) – Registered Dietitians are a wonderful resource for anyone wanting to learn about eating for weight loss and improved health. It is hard to truly know how much of which foods are healthy for our bodies, but an RD can help you with:

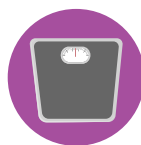
- Making meal plans that work for you.
- Learning about food and how they affect your weight and health.
- Developing nutritional goals.

Self-monitoring

Losing weight is not necessarily as simple as eating less and moving more. There is also no one-size-fits-all approach to weight-loss. Self-monitoring is an easy and effective way to keep track of what food and beverages you consume, how much you exercise and more. Your goal in monitoring your lifestyle should be to increase self-awareness of your choices and make modifications where necessary.

Some commonly used self-monitoring tools include:

- **Food journals**
- **Regular self-weighing**
- **Activity trackers or apps**
- **Wearable wrist-bands and smartwatches**



Each of these tools can be used to track your daily activities and lifestyle choices. Tracking them can help you see a pattern in your choices. You can use these patterns to find which ones can lead to weight gain and which ones can lead to weight-loss. No matter how you choose to track your lifestyle choices; self-monitoring is a crucial tool in weight-loss, weight management and long-term healthy living.



Physical Activity

Before you begin any new physical activity plan, be sure to check with your healthcare provider. Physical activity is a key part of any health and wellness plan. Combining physical activity with healthier eating is an important step in beginning to reach and/or maintain your goals. Increasing your physical activity will help you feel better and give you more energy. Physical activity can not only help you manage you weight, but it may also contribute to healthy bones and make you feel good.

According to the Centers for Disease Control and Prevention (CDC), adults ages 18-64 should get the following amount of physical activity each week:

2 Hours 30 Minutes
(150 minutes) of moderate-intensity activity, like brisk walking, every week

AND

2 Days or More Per Week
Muscle-strengthening activities that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders and arms)



OR



1 Hour 15 Minutes
(75 minutes) of vigorous-intensity activity, like jogging or running, every week

AND

2 Days or More Per Week
Muscle-strengthening activities that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders and arms)



OR



An Equivalent Mix
of moderate and vigorous-intensity activity every week

AND

2 Days or More Per Week
Muscle-strengthening activities that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders and arms)

Start by Developing Your Exercise Goals

Developing fitness goals is an important step in beginning or changing your physical activity habits. Saying you are going to walk more is a great idea, but if a goal is that vague, it will be easier to come up with excuses not to walk and you might wonder if you really have been walking more. Developing SMART goals that follow the FITT principle can help you be successful on your weight-loss journey.

Specific: Pick one specific behavior to modify per goal.

Measurable: Can you measure this goal against a baseline?

Attainable: Is this goal attainable? Use action words when writing goals. For example: "I can take a walk each night after dinner," or "I will drink one less can of soda each day."

Realistic: Do you have realistic and honest expectations of yourself with your time, body and likes/dislikes?

Timely: Is your timeline for modifications reasonable and manageable?

Frequency: How often will you exercise?

Intensity: How hard will you exercise?

Type: What kind of exercise will you do?

Time: how long will you exercise?

SMART Goals that follow the FITT Principle are clearly defined and allow you to easily know if you are keeping to your plan.

Goal Example:	SMART Goals that Follow the FITT Principle	Poor Goals
"I want to increase my cardiovascular exercise."		✓
"I need to lose weight." These goals are too general and do not clearly define a plan.		✓
"I will increase the amount I exercise by walking two times a day for 15 minutes each on Monday, Wednesday and Friday. I will walk at a pace that is somewhat difficult, or a moderate intensity."	✓	
"I will record what I eat and drink as well as the amount I exercise each day. My goal is to consume less than 2,000 calories per day and to exercise for 150 minutes per week."	✓	

Measuring Your Exercise Intensity

Exercise is measured by a term called Rate of Perceived Exertion (RPE). RPE is a physical activity scale of one to 10, where one is the easiest (like lying in bed) and 10 is the hardest (like sprinting as fast as you can). You should aim to have physical activity at a rate around six or seven.

If you are walking with someone, keeping a level six or seven pace would be one where you can have a conversation, but will need to take regular, deep breaths. If you are exercising above that level, it will be very hard or impossible to carry on a conversation at the same time.



Low Intensity

This is an activity level you can continue for a longer period of time, such as shopping, a casual walking pace or housework.



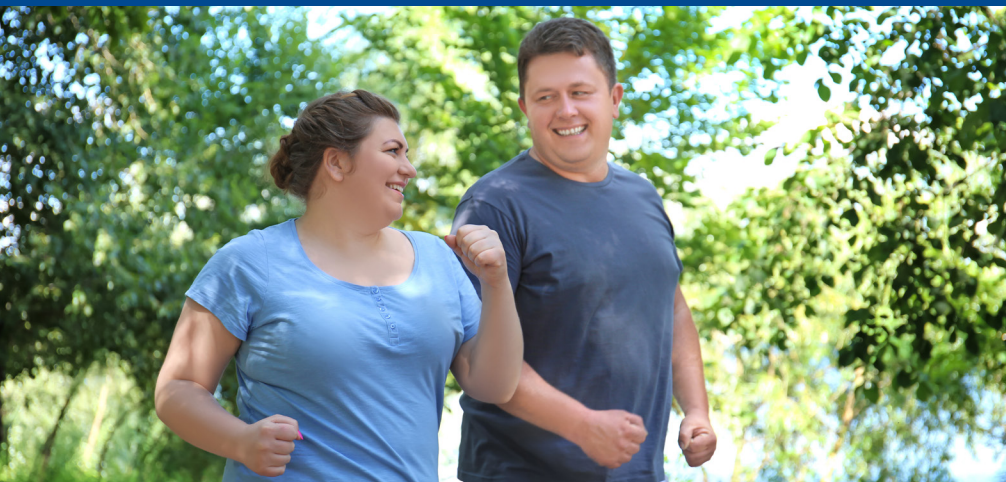
Moderate Intensity

This level of activity will get your heart rate up and it will take effort to maintain the intensity. This level will help you maintain your health.



Vigorous Intensity

This level of activity will feel like an all-out effort. Your heart rate will be high and you will not be able to speak complete sentences without taking several breaths. This level of intensity improves athletic conditioning.



Exercise can come in many forms and does not always have to mean spending hours in the gym. Here are some great examples of simple exercises that you can do alone or with a partner:

- Brisk walking (15-minute mile pace)
- Yard or housework
- Leisurely bike ride
- Playing with family
- Light swimming

Remember these few things about exercise:

- Make it simple.
- Make it Happen.
- Make it realistic.
- Most importantly, make it fun!

The most important commitment YOU can make is to YOUR weight and health!

Support Groups

The journey of improving your health and weight can sometimes feel like a difficult and lonely one. Finding the right weight-loss plan can take time and be mixed with setbacks.

However, you are not alone. Support groups are a wonderful resource for you and others to share and learn with each other. Support groups can be women-only, men-only, faith-based, offered by your local community center or available online. Finding a support group does



not have to be difficult. Here are some ideas for finding and engaging in one near you:

- Ask your healthcare provider for a support group reference.
- Do not be afraid to speak up and share your story. There is a good chance someone else in the room is thinking or feeling or going through the same thing.
- If you feel uncomfortable meeting face to face, consider a web-based support group.

Setting Realistic Goals:

When developing your goals for weight-loss, exercise, eating healthy and more, it is important to keep them realistic. Quite often, individuals become frustrated when they do not see immediate weight-loss results. It is important to not let yourself become frustrated with your weight-loss plan. Changing your diet, incorporating exercise and more can all be significant life changes and they need to be taken seriously. Here are a few tips for developing realistic goals:

- Average weight-loss is one to two pounds per week.
- Start slow with exercise and find an activity you enjoy.
- Ask your spouse, family member or friend to exercise with you.
- Make meal times a family affair. Have your children help with cooking and let them choose healthy foods as well.
- Recognize your progress. Continue a proactive mindset and remember that each day is another day forward.
- Don't be afraid to ask for help. Feel like you might be slipping with your eating or exercise routine? Talk to a family member, friend or healthcare professional and they'll help you get back on track.

Conclusion

Your everyday choices are your behaviors. They include everything from how much sleep you get each night to what you have for lunch and if you take the stairs or the elevator. Your behaviors join together to form your lifestyle. Making lifestyle modifications is key for managing your health. Finding modifications that work and are ones you can keep long term can be the hardest to make, but they also give you the greatest results on your weight-loss journey.

COMMUNITY-BASED PROGRAMS

Community-based programs can be an excellent way for you to learn from others dealing with weight or weight-related issues. They can also be a good source of motivation that will help keep you accountable. The programs mentioned in this section are not all-inclusive (they do not include meals), and it might be good to try out several programs in your area to find the best fit.

TOPS CLUB INC. (TAKE OFF POUNDS SENSIBLY)



**TAKE OFF POUNDS
SENSIBLY**

Founded in 1948, TOPS is the original non-profit weight-loss support group. TOPS does not sell foods, endorse products, promote quick fixes or push a one-size-fits-all meal plan. TOPS provides members in thousands of chapters across the U.S. and Canada with the information and support needed to make healthy lifestyle changes they can enjoy for a lifetime.



How does it work? No foods are required, and none are off limits. When it comes to healthy eating, TOPS advocates portion control and balanced eating within two healthy frameworks: the USDA's MyPlate, and the Food Exchange System developed by the Academy of Nutrition and Dietetics and the American Diabetes Association. Many dietitians use these same frameworks for teaching healthy eating.

TOPS offers tools, tips and meal planning ideas for using MyPlate and the Exchange System in its membership magazine and other materials. Members are encouraged to move more and eat a greater variety of healthy foods in smaller portions as well as change habits and thinking patterns with the aid of weekly group support. Weekly TOPS meetings, led by volunteers, focus on making small, steady lifestyle changes that provide lasting weight-loss and better health. Each meeting includes a confidential weigh-in so members can stay accountable to the scale, a brief educational program on nutrition, fitness, health or

behavior change, and an opportunity to share challenges and successes from the previous week if the Members are urged to consult with their healthcare provider to set a realistic, healthy goal weight and a calorie level that is safe, effective and sustainable.

The first visit to any chapter is free. The annual cost to join TOPS is \$32 for a chapter or online membership. Chapter members also pay local chapter dues, which vary by community but average \$5 or less per month. Fee and chapter dues cover the costs of weekly weigh-ins and meetings, chapter materials, subscription to the magazine, a quick-start guide and online tools. Support online includes facilitated online chat (for online only members), recipes and self-care program as well as online weight and exercise trackers.



Weight-loss: TOPS stands for “Take Off Pounds Sensibly.” The organization advocates slow, steady weight-loss using techniques and small behavior changes that members can naturally incorporate into their day and keep for a lifetime. A 2010 university study of 42,500 TOPS members found that those staying in TOPS for three years were able to maintain their weight-loss throughout that time and lost as much weight as dieters using popular commercial weight-loss programs.



Concerns: TOPS can’t do the work for you. You only get out of TOPS what you put into it. Regular attendance and participation in a local chapter (or online community) are necessary for success. Each chapter tends to take on its own personality, reflecting the ages, backgrounds and interests of its members. Finding a local chapter that is a “fit” for your personality and schedule is important.

YMCA DIABETES PREVENTION PROGRAM

As a leading nonprofit organization for strengthening community through youth development, healthy living and social



**YMCA'S
DIABETES
PREVENTION
PROGRAM**

responsibility, the Y believes that all people should be able to live life to its fullest, healthiest potential. In the YMCA's Diabetes Prevention Program, a trained lifestyle coach will introduce topics in a supportive, small group environment and encourage participants as they explore how healthy eating, physical activity and behavior changes can benefit their health.



How does it work? The 12-month group-based program consists of 16 one-hour, weekly sessions, followed by monthly sessions led by a trained lifestyle coach who facilitates a small group of people with similar goals. You will discuss topics such as healthy eating, increasing physical activity, reducing stress, problem solving and much more. The program will also help you stay motivated to maintain progress toward program goals with monthly maintenance sessions.



Weight-loss: Based on research funded by the National Institutes of Health, the program has been shown to reduce the number of new cases of type 2 diabetes by as much as 58%. The reduction was even greater, 71%, among adults aged 60 years or older. Diabetes Prevention Program goals include:

- Lose 7% of your body weight.
- Gradually increase your physical activity to 150 minutes per week.

The program states that you will accomplish these goals by eating healthy, increasing physical activity and losing weight:

- **Healthy Eating** – Eating smaller portions, reducing fat in your diet and discovering healthier food options have been proven to help prevent the onset of type 2 diabetes.
- **Increasing Physical Activity** – Studies have repeatedly shown that moderate physical activity (walking, swimming, mowing the lawn) for as little as 30 minutes, five days a week can help improve your blood pressure, raise your good cholesterol and prevent blood flow problems.
- **Losing Weight** – It has been shown that reducing your body weight by even a small amount can offer tremendous benefits for people at risk for diabetes.



Concerns: As with all support-based programs, you must take part in the program to experience the results. The main focus of this program is to prevent diabetes; however, weight is also addressed as weight and diabetes are related. You must also be diagnosed with prediabetes to enter the program.

COMMERCIAL WEIGHT-LOSS OPTIONS

There are hundreds of commercial weight-loss products and programs to choose from. It can be hard to know where to start.

Commercial weight-loss products and programs not offered through a healthcare provider are called non-clinical. Non-clinical methods vary greatly and can include everything from diet books to supplements to commercial weight-loss programs that might include meal replacements. Some of these options may require you to buy and use the program's foods or supplements. There may also be fees for professional services or devices.

Non-Clinical Weight-loss Options:

- WW
- Health coaches
- Meal-replacement items
- Diet books
- Body monitoring devices such as Fitbit Alta™ or Bodybugg™
- Websites such as noom.com and SparkPeople.com
- Support groups
- Apps such as Lark™ and MyFitnessPal
- Over-the-counter (OTC) medications such as alli™
- Meal replacement systems such as Jenny Craig and Nutrisystem

Equal to the number of options available in this category of weight-loss are the types of claims they make. It is important to remember that not all methods and claims are reviewed by the Food and Drug Administration (FDA). The FDA is responsible for making sure products are safe and effective. They review all medical devices as well as medications whether they are over-the-counter or prescription. They do not review supplements advertised for weight-loss or diet books.

How to Evaluate Weight-loss Claims

Is this Claim Reasonable?

Claim	Reasonable	Not Reasonable
Lose 1-2 pounds per week!	✔	
Have a bikini body in 30 days!		✘
This miracle pill will dissolve your fat away!		✘

A good rule of thumb is: if a product or claim sounds too good to be true, it usually is.

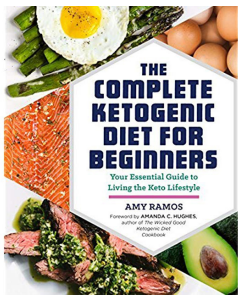
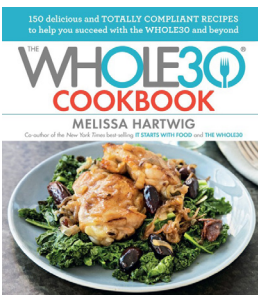
A reasonable goal is to lose about a pound or two each week. For many people, that means consuming 500 fewer calories per day as well as exercising and eating more nutritious foods. If a weight-loss option claims greater weight-loss per week, avoid it.

Diet Books

Diet books have been published since the mid-19th century. While not many have been proven effective, the market for an at-home guide to weight-loss has been successful. They are easy to find, promise results and are usually very affordable.

Popular Diet Books Include:

- *The Complete Ketogenic Diet for Beginners* by Amy Ramos
- *The Whole 30 (any in the series)* by Melissa and Dallas Hartwig
- *The Obesity Code* by Dr. Jason Fung
- *The Plant Paradox* by Dr. Steven Gundry
- *The Lose Your Belly Diet* by Travis Stork





How Do They Work? Diet books are fairly simple, straight forward and affordable. You select a book at a store or at the library and follow the rules. Most do not require special foods or tools. Many follow a combination of a change in diet (reducing calories, cutting out foods or food groups) paired with self-monitoring and exercise. The cost is about the same as you would have spent on food they currently eat from the grocery store.



Weight-loss: Weight-loss and management depends on your ability to follow the program outlined in the book. If you find it to be something you can easily follow, you may experience a one or two pound loss per week.



Concerns: While many diet books have some merit, most do not offer real, long-lasting lifestyle change options. The majority of people follow the plans for a month or two.

Authors of diet books are very good at putting what you want to hear into words. They make money from selling their books. If they can make a plan seem easy, quick and long-lasting; it could be a best-seller. The New York Times even has a best seller list just for food and diet books.

Following a plan from a diet book usually means that you are making lifestyle changes on your own. This can be difficult. The more weight you aim to lose and the more health concerns you are dealing with can make it harder to be successful in long-term weight management. No matter your health and weight status, it is best to talk with your healthcare provider before beginning any weight-loss plan. You can discuss the pros and cons of different plans with them.

Online/Website/App-Based Diet Programs

Similar to diet books, website and app-based diet programs come in many versions. Some are free, while some charge a fee. Some require a body-monitoring device, some do not. Some are nutritionally sound and others are not.





How Do They Work? Some websites and apps are digital versions of their programs (WeightWatchers.com) or books (Whole30.com) while others are full courses with an online support structure (noom.com). These options are popular and usually offer:

- Simple tools such as recipes, meal ideas and tips for eating out
- Workout and sleep tracking
- Food journal or calorie counting options
- Forums and discussion boards to provide support and an idea community
- Add-on options for personal counseling or prepared meal delivery



Weight-loss: Depending on your ability to follow the set program, you can experience a one to two pound weight-loss per week.



Concerns: Similar to diet books, digital-based diet programs are self-monitored. These work well for some, but are not for everyone. Most diet books and digital-based programs offer flexible options in weight-loss that allow you to shop for your own food at the grocery store, which many people prefer. As with all diet options, it is best to talk with your healthcare provider before you begin one. You may have nutritional or health needs that will not fit with all programs.

Dietary Supplements

Dietary supplement advertisements promise some of the greatest weight-loss results. However, they have the least amount of rules and regulations when it comes to advertising and marketing claims. This makes it hard for people looking for weight-loss products that are safe and effective to know what to believe and trust.





Some facts about dietary supplements:

- Dietary supplements are any product taken by mouth that supplement your diet. They include:
 - Vitamins
 - Minerals
 - Herbs
 - Amino acids
- The manufacturing of dietary supplements is regulated by the FDA for safety.
- Dietary supplements do not need to prove they perform a certain action (like weight-loss) before being sold.
- Dietary supplements can interact with prescription medications. You need to let your HCP and pharmacist know if you choose to take them.



How Do They Work? To understand how dietary supplements work, you need to look past the marketing claims and read the ingredients. The supplements may include ingredients that claim to support weight-loss. However, you need to look at each ingredient on the list and learn how they work individually and how they work together. Doing the research can help you understand how effective a supplement might be for weight-loss. Additional guidance from the Federal Trade Commission (FTC) on this topic can be found at: **[Consumer.FTC.gov/Articles/0061-Weighing-Claims-Diet-Ads](https://www.consumer.ftc.gov/articles/0061-weighing-claims-diet-ads)**

It is very important to know how each supplement will work with all prescription medications you are already taking. It is best to take the product, or at least the list of ingredients, to your HCP or pharmacist to help decide if one is right for you.



Weight-loss: Weight-loss results, specifically from dietary supplements, can be hard to measure as they do not need to be proven effective to be sold. Many people take them along with other lifestyle changes such as increased exercise or weight-loss options such as a low-fat or low-calorie diet. Like all weight-loss options, a one or two-pound weight-loss per week is recommended.



Concerns: It is important to look beyond the amazing weight-loss claims dietary supplements often make. Many claim dramatic weight loss with no additional lifestyle or dietary changes. Evidence supporting these claims or on weight loss, in general, is rarely available. A quick fix endorsed by someone famous can be tempting, but adding dietary supplements without talking with your HCP can not only be costly, but potentially dangerous if it causes a reaction with your medications.

Wearable Technology

A wide range of wearable technology is available that can aid in monitoring lifestyle and dietary changes for weight-loss. Many are worn on your wrist, and they generally have options to pairing with a website or app to allow for greater information sharing and tracking.



How Do They Work? The devices are generally worn on your wrist or carried in your pocket. Through direct monitoring of your actions combined with information you input through a website or app, they can track:

- Temperature
- Heart rate
- Movement (steps, miles, flights of stairs)
- Calories burned
- Calories consumed
- Water consumed
- Sleep patterns



Weight-loss: Wearable technology alone will not result in weight-loss. These devices are meant to be used along with a weight-loss option.



Concerns: These devices cost about \$100 to \$250 and require an online access fee of around \$7-10 per month. The benefit of wearing technology while working out is that a wearer will get a good understanding of which of their activities burn calories best. The downside is that food logging can become tiring, and the ability of technology to accurately calculate calories depends entirely on how well the wearer tracks their food consumption. In addition, not everyone wants to wear an armband or carry a device at all times.

Over-the-Counter Drugs

Currently, alli® is the only over-the-counter (OTC) drug approved by the Food and Drug Administration (FDA) for weight-loss. A drug that has FDA approval means that the FDA has reviewed the product and found it to be safe and effective when used as directed. It is not recommended for children under 18 years of age or adults with a BMI below 25. It is important to talk with your HCP before taking any new medication.



How does it work? The medication alli® is a lower-dose version of the prescription drug Xenical® (orlistat). It is a capsule that is taken three times each day, before a meal that includes dietary fat. The medicine works by decreasing the amount of fat absorbed by your body, generally about 25% less. This means not only is the amount of fat absorbed decreased, so are the number of calories. The fat, calories, and nutrients not absorbed by your body are carried through your intestines as stool.

This medicine is designed to help increase the amount of weight you lose while eating a healthy diet, exercising regularly, and drinking plenty of water. The company that manufactures this drug (GlaxoSmithLine group of companies) offers a website with educational and support resources for people taking alli® at **MyAlli.com**.



Weight-loss: The average weight-loss for people who take alli® is about five to 10 pounds over six months. The medicine is designed to increase your weight-loss while living a healthy lifestyle. For example, if you lost five pounds through eating a healthy diet and exercise, taking alli® could increase your weight-loss by two to three pounds, resulting in a seven to eight-pound weight loss.



Concerns: People taking alli® need to make sure they are eating a healthy, balanced diet that does include some nutritional fat. The medicine will not aid much in weight loss if you are already following a very strict low-fat and low-calorie diet.

Individuals using alli® on a regular basis should take a multi-vitamin as there is the potential for vitamin and mineral deficiencies as not all nutrients consumed are absorbed while taking this medication. The side effects of alli® are limited to the gastrointestinal (GI) system and commonly include gas, cramps, stool leakage, oily spotting, and gas with discharge. These side effects will decrease as you decrease the amount of fat you consume in your diet.

Commercial Weight-Loss Centers and Programs

Choosing a commercial weight-loss center or program is one of the most popular options for someone wanting to manage their weight. These options usually provide resources such as pre-packaged meals, support and more. They also traditionally use a 1,000 to 1,500 calorie-per-day diet plan, which can provide quick weight-loss results. However, as weight-loss slows down, it is easy for some people to get frustrated and discouraged or regain weight after they leave the program.

Before starting any commercial program, ask the following questions to a program representative:

- How much, on average, do clients regain long-term?
- What is your maintenance and follow-up program?
- What rate of weight-loss does your program aim for?
- Does the program emphasize balanced food choices and exercise?
- Are you required to buy specially formulated foods or supplements?
- What are the costs of membership, weekly fees, brand food, supplements and counseling?
- What are the credentials of those running the program?
- What are the health risks?

Commercial programs usually fit into one of two categories — those that use a meal replacement plan and those that do not. Here is a closer look into the two options:

Meal Replacement Plans:

- Participants purchase and eat pre-portioned meals.
- Faster initial weight-loss, but harder to maintain long term and once you leave the program.
- Convenient, but can also be expensive.
- Does not teach the basics of healthy eating and nutrition.

Non-Meal Replacement Plans:

- Participants eat meals made at home from ingredients bought at the grocery store.
- Slower initial weight-loss, but easier to maintain long term.
- Costs and effort similar to traditional meal planning.
- Teaches the basics of healthy eating and nutrition.

Commercial Weight-loss Programs that Use Meal Replacements

NUTRISYSTEM

Nutrisystem is a leading provider of health and wellness and weight-loss products and services, and has helped millions of people lose weight over the course of more than 45 years. Nutrisystem offers safe, effective and scientifically-backed weight-loss plans, with a distinguished Science Advisory Board and strong clinical studies.



Nutrisystem plans provide frozen and shelf-stable pre-packaged, portion-controlled meals and snacks delivered to your home. All Nutrisystem plans include comprehensive support and counseling options from trained weight-loss coaches and certified diabetes educators, accessible seven days a week via chat, email or telephone.

Nutrisystem features portion-controlled meals and structured reduced-calorie meal plans that are high in protein and fiber to help keep you feeling full throughout the day. All meal plans align with national guidelines for total fat, saturated fat, trans fat, sodium, carbohydrates, fiber, protein and added sugars.

All plans can be customized to specific dietary needs and preferences, including the Nutrisystem D® program for people living with type 2 diabetes or prediabetes. Once you have reached your weight-loss goal, Nutrisystem offers transition programs to help you continue to follow the portion-controlled principles of the Nutrisystem program while adding back more of your own foods.

All foods in the Nutrisystem portfolio have been reformulated to contain no artificial flavors or sweeteners and about 120 menu items are free of artificial preservatives.



How does it work? Nutrisystem plans, tailored for men and women, encourage you to consume three meals and two or three snacks per day. The plans offer about 150 items from its highly rated menu of ready-to-go and fresh frozen options. Foods are home-delivered, typically in shipments every four weeks, after you place an order online or over-the-phone. Often fruits, vegetables, lean proteins and dairy products are added to the meal plan – those you select and purchase as needed. Foods are grouped into three categories: SmartCarbs (nutrient-rich, high-fiber carbohydrates), PowerFuels (lean proteins and healthy fats) and Vegetables (non-starchy ones, which can be eaten freely). Each week, you will also get to include Flex™ meals (one breakfast, one lunch, one dinner and one to two snacks) that you either prepare on your own or have when dining out. Flex™ meals allow you to add flexibility into your program while still following the Nutrisystem meal plan guidelines.

A meal planner explains how and when to add these foods and Flex™ meals into your diet. In addition to the Nutrisystem meal plan, you are encouraged to complete three 10-minute bouts of exercise each day, known as My Daily 3. Counseling, for those who want it, is available and included with all Nutrisystem programs. Nutrisystem offers a free tracking app NuMi as a seamless

companion to the Nutrisystem program complete with a barcode scanner for easy tracking, a newsfeed offering daily tips and inspiration, and videos and recipes from The Leaf, the Nutrisystem lifestyle blog.



Weight-loss: With the recommended fruits, vegetables and dairy products, this program is considered a well-balanced approach to weight-loss. In a clinical study, participants on the Nutrisystem plan lost an average of 11.6 pounds in their first four weeks. The average results of two clinical studies on the Nutrisystem D® program showed that participants living with diabetes lost an average of 14 pounds at three months and reduced their A1C by 1.02%.



Concerns: Participants using pre-packaged meals may need additional help to learn good nutrition, which makes maintaining weight-loss difficult once they return to buying or preparing food on their own. In 2011, Nutrisystem began to address this with “transition and maintenance” plans that reduce the number of on-program meals and increase the customer’s preparing and choosing healthy meals in the proper portions. More recently, Flex™ meals were introduced into the program, providing the opportunity to teach consumers how to prepare their own perfectly portioned, balanced meals and snacks to support a lifelong healthy lifestyle. Counselors are also available throughout the program and during transition and maintenance to educate you about maintaining good eating habits during the program and on your own. And, Nutrisystem provides the free NuMi app to help customers continue to self-monitor their food intake and physical activity even after they have reached their weight-loss goal.

Membership is free and programs cost about \$230-\$350 for a 28-day package, depending on your order preferences. This does not include the additional fruits, vegetables and other food that you supplement. Although Nutrisystem claims that the full cost of eating while on the program is about 15 to 40% less than what the average American spends on food, some consumers would rather buy food week-to-week, rather than once a month. Some employers and health plans subsidize or reimburse program costs.



JENNY CRAIG

Founded 35 years ago, the Jenny Craig program is designed to provide structure and support to help members lose weight and learn how to keep it off. Jenny Craig's program provides nutritionally-balanced menus, which include around 100 delicious entrées, desserts and snacks developed by dietitians, nutritionists, and professional chefs.

At Jenny Craig, personal support is a cornerstone of the program. Dedicated consultants who have gone through in-depth training provide one-on-one personal support and education on portion control and strategies such as utilizing Fresh and Free Additions, which helps with satiety. Jenny Craig consultants work with each member individually to identify their strengths, challenges and personal goals to create unique weekly meal and activity plans that fit individual needs. Consultants also help members implement behavioral strategies to support their success. Jenny Craig's comprehensive approach to weight-loss is available to members either in person, in centers or by phone or video chat with Jenny Craig Anywhere. The program is backed by hard science as demonstrated by a 2010 independent two-year clinical trial published in the Journal of the American Medical Association showing that participants on the Jenny Craig program lost three times more weight than dieting on their own. Jenny Craig, based in Carlsbad, California, is one of the world's largest weight-loss and weight management companies, with approximately 500 company-owned and franchised locations in local neighborhoods in the United States and Canada, and approximately 600 centers worldwide.



How does it work? Jenny Craig members eat six times a day. A typical menu on Jenny Craig consists of three Jenny Craig meals and three snacks per day in combination with the member's added grocery items, such as fresh fruits and vegetables and low-fat dairy. Members can still eat their favorite foods, there is no need to eliminate any food groups. No cooking or meal prep required.

The Jenny Craig Program reflects the key recommendations of the U.S. Dietary Guidelines to achieve a healthy eating pattern and active lifestyle to reduce risk and attain a healthy weight. The menu plan is based upon the member's caloric needs, taking into account the member's gender, age, height, weight and level of physical activity.

The menus offer around 100 items and provide less than 10% calories from saturated fat and added sugars and 0 grams trans-fat.

There are several program options to fit specific needs: The Classic Jenny Craig menu, Jenny Craig for type 2 diabetes, and their new Rapid Results program, which leverages the body clock's natural circadian rhythm to help optimize metabolism and accelerate weight loss.

During the weight-loss part of the program, members follow menus that include Jenny Craig foods for seven days a week. For special events or other times when members need an alternate option, consultants offer guidance for meals on their own. When a member reaches their goal weight, they transition to their own foods with the help of their consultant, and have the option to continue with one meal/snack per day to maintain consistent calories for more successful weight maintenance through our maintenance program. Throughout the program, members meet with their consultant to utilize behavioral strategies to address challenges like emotional, social and unconscious eating and dining out as well as to build an enjoyable, active lifestyle. The program also provides recipes using Fresh and Free additions and helpful blog articles for added support.



Weight-loss: Jenny Craig is a well-balanced, scientifically proven program on which you can expect to lose one to two pounds per week on average. A 2010 independent trial, published in the Journal of the American Medical Association, demonstrated a 10% weight-loss for Jenny Craig participants at one year and seven percent weight-loss at two years. A 2015 study conducted by researchers at Johns Hopkins University and

published in *Annals of Internal Medicine*, one of the most widely-cited peer-reviewed medical journals in the world, suggests that doctors consider recommending Jenny Craig's weight-loss solution to their patients.

Jenny Craig was identified as one of the most effective weight-loss programs based on evidence that its participants achieved greater weight-loss at 12 months, relative to control groups. A 2014 clinical trial of people with type 2 diabetes, demonstrated a 9% weight-loss at one year with greater improvements in diabetes control and heart risk factors as compared to usual care. Jenny Craig's Type 2 Diabetes Guide has been favorably reviewed by The American Association of Diabetes Educators (AADE).

Jenny Craig's newest program, Rapid Results™, is a science-based innovation that leverages research on the body clock's circadian rhythm which was awarded the 2017 Nobel Prize in Physiology/Medicine. Based on a Jenny Craig pilot study, members can lose up to 16 pounds during their first four weeks. The average weight-loss was 11.6 pounds for those who completed the study.



Concerns: From the beginning, members are learning how to incorporate healthy foods (a variety of non-starchy vegetables, reduced/nonfat dairy products, whole grains and heart healthy fats) into their menus. The daily menu is a model for learning nutritional balance, variety and moderation in food choices. For long-term weight management, it's important to utilize the tools learned from the program and build healthy habits such as self-monitoring of food choices and behavioral strategies as well as engaging in physical activity.

Consultants are not dietitians; however, they have been trained to deliver an evidence-based program that is developed by registered dietitians as is recommended by the 2013 Obesity Guidelines. Jenny Craig offers three standard types of memberships: As You Go, Premium and Super Premium (available In Center and through Jenny Craig Anywhere). Food costs vary but are approximately \$20 a day for three entrées and two snacks.

SlimFast

SLIM-FAST (Available in supermarkets, grocery stores and pharmacies)

Slim-Fast has been around for more than 40 years and offers relatively quick weight-loss by substituting a calorie-controlled, sweet-tasting fortified meal replacement shake or bar for some of your regular meals. The program offers online support that includes weight, diet and exercise charting, chat rooms with online buddies, chat sessions with registered dietitians, a weekly newsletter, exercise programs and meal planning.



Slim-Fast offers several plan options including Traditional, Keto, Advanced Nutrition and Diabetic Weight Loss. They also offer coffee drinks, supplements and bakery items.



How does it work? The diet plan is centered on two Slim-Fast meal replacements. One meal consists of a “Meal-on-the-Go” shake or bar and the other is a similar shake or bar combined with 200 calories of your favorite healthy foods. The third meal is a “sensible meal” of about 500 calories, with 1/2 of your plate filled with veggies, 1/4 with lean protein (such as chicken without the skin), 1/4 with starch, a salad on the side and fruit for dessert. A snack of 120 calories is also offered during the day. Fruits and vegetables (about three to five servings) are encouraged in addition to the meals and snack.

As dieters approach their weight maintenance phase, they can replace the shakes or bars with two additional “sensible meals;” however, Slim-Fast provides little instruction on transitioning from portion-controlled products back to regular foods, an omission which is likely to leave dieters struggling to maintain their weight-loss or relying on Slim-Fast products indefinitely.



Weight-loss: Overall, if followed correctly, the plan does encourage additional fruits and vegetables and it stays at or above 1,200 calories a day, leading to more balanced consumption than traditional liquid diets. Meal replacement diets such as Slim-Fast are appealing because of their simplicity and convenience. If you plan to use Slim-Fast, you should consider doing so under the supervision of a healthcare professional, who can help teach you how to transition yourself from the shakes and who can monitor you for potential complications of fast weight-loss.



Concerns: The shakes are about \$1.75 and the meal replacement bars and bakery items cost about \$1 to \$2 each. The biggest drawback is that dieters may not receive comprehensive information about nutrition, which means that as they transition back to regular foods, which they are likely to do eventually, weight gain may be inevitable. Also, the recommended calorie level may be too low for some dieters.

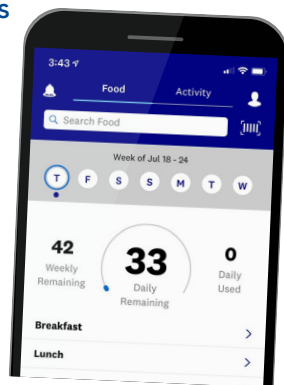
WW

WW is a global wellness company and the world's leading commercial weight-loss program. WW inspires millions of people to adopt healthy habits for real life. Through WW's engaging digital experience and face-to-face group meetings, members follow a livable and sustainable program that encompasses healthy eating, physical activity and positive mindset.



How does it work? The WW program, WW Freestyle™, builds on the successful SmartPoints® plan and gives you more flexibility than ever before. WW Freestyle gives you the freedom to eat – without tracking or measuring – from a robust list of delicious, satisfying foods and still successfully lose weight. While everything is on the menu with WW, the WW Freestyle program features an expanded list of more than 200 zero points foods, including: eggs, corn, all fish, all seafood, skinless chicken breast, skinless turkey breast, non-fat plain yogurt, beans, peas, lentils and tofu.

As part of the new program, the SmartPoints system encourages a healthier pattern of eating and is consistent with the 2015-2020 Dietary Guidelines for Americans. The SmartPoints system translates complex nutrition information into one simple number, giving each food and beverage a SmartPoints value based on calories, saturated fat, sugar and protein. You are given a personalized Daily SmartPoints target based on your height, weight, age and gender and also receive a Weekly SmartPoints target. For even more flexibility, up to four unused SmartPoints each day automatically rollover for you to use as you wish on another day.



With more than five decades of experience in building communities and WW's deep expertise in behavioral science, WW aims to deliver wellness for all. In addition to eating what you love, WW Freestyle helps you move more in a way that fits your lifestyle, as well as learn the skills and techniques to shift your mindset, strengthen your resilience and keep yourself motivated. Additionally, WW tools such as Connect — a social media community within its app — provides you with a safe space to talk about your journey through a community of like-minded members.

You can follow the program in-person at weekly group meetings and/or digitally. For more information, please visit **WeightWatchers.com**.



Weight-loss: WW inspires and guides members toward a healthier pattern of living; by following the program, members can expect to lose one to two pounds per week. WW is one of the few programs whose ability to produce weight-loss has been clinically proven repeatedly through research studies. WW has multiple subscription options: a Monthly Pass subscription to its Meetings offering has base rate of \$44.95/month and OnlinePlus has a base rate of \$19.95/month (prices may vary). There is also a starter fee of \$20.00 to join; applicable taxes vary by state. These two offerings include access to the WW app, which includes Connect.



Concerns: While Leaders have lived the experience (all Leaders have lost weight on WW and kept it off) and are trained in behavioral methods to support weight-loss, they are not licensed dietitians. Therefore, if there are special dietary requirements, it is always best to consult with a dietitian. Another concern is that foods that are zero in point value – which WW describes as having been selected because they have a low risk of being overeaten and form the foundation of a healthy eating pattern – can have as much as 60-230 calories in them, so it is important to eat these in moderation.



Evaluate Your Choices

There are hundreds of weight-loss programs to choose from and many have fantastic sounding claims. Chances are, those claims are too good to be true. When choosing a commercial weight-loss program, be sure to evaluate them based on what will work best for you. A good piece of advice to follow is, "The best diet is one you can stick with."

Tips for Evaluating Commercial Weight-loss Programs. Make sure to choose a plan that:

- Promotes gradual weight-loss
- Develops permanent lifestyle changes
- Encourages exercise
- Does not exclude major food groups
- Does not label certain foods "bad" or "illegal"
- Does not make unrealistic weight-loss claims



PHYSICIAN-SUPERVISED OPTIONS

Physician-supervised weight-loss programs are one-on-one treatment options that take place in a medical office. These programs are led by a healthcare provider, such as a:

- Medical Provider (MD, DO, PA, NP)
- Registered Dietitian (RD)
- Health Psychologist

Many times, several HCPs are involved and work as a team in these programs as they include not only medical advice, but also nutrition and lifestyle counseling.

The costs of these programs vary depending on the services offered. Your health insurance company might cover all or some of this treatment. If you have additional obesity-related health conditions such as high blood pressure or type 2 diabetes, it might affect your coverage for these treatment options. Be sure to read and understand your insurance coverage.



If you are looking for help in searching your health insurance policy, check out the OAC resource: How to Review Your Health Insurance Plan at: **[ObesityAction.org/Action-Through-Advocacy/Access-to-Care/Access-to-Care-Resources/Working-With-Your-Insurance-Provider-a-Guide-to-Seeking-Weight-Loss-Surgery/](https://www.obesityaction.org/action-through-advocacy/access-to-care/access-to-care-resources/working-with-your-insurance-provider-a-guide-to-seeking-weight-loss-surgery/)**

Having a healthcare team that you are comfortable with and that is trained in obesity medicine is key for long-term success. If you do not currently have a physician that meets your needs, you should explore working with another physician. To help find obesity medicine trained physicians and other HCPs in your area, visit Obesity Care Providers powered by the OAC: **[ObesityCareProviders.com](https://www.obesitycareproviders.com)**

Find the Right Healthcare Provider to Talk about Your Weight and Health!



**Obesity
Care
Providers**

Powered by the Obesity Action Coalition

📍 What is your zip code?

🏥 Select Specialty...

🔍 SEARCH

How does it work? It's easy! Filter your search by:

Specialization:

- Bariatric Surgeon
- Dietitian
- Nurse Practitioner
- Physician
- Physician Assistant
- Psychiatrist
- Psychologist

Location:

- Use your zip code to do a quick search
- Find healthcare providers near you!

Get Useful Tips

Prepare for your appointment with:

- Valuable tips on what to bring during your consultation
- Practical information to better understand your journey with weight
- Questions to ask in order to have an honest conversation about your weight and health



At your first visit, a medical provider will meet with you. This consultation can include:

- ✓ A detailed medical evaluation for obesity-related conditions
- ✓ A look into your daily lifestyle
- ✓ A physical exam
- ✓ Weight history (including past weight-loss attempts)
- ✓ A psychological history

Many patients come to the clinic with undiagnosed type 2 diabetes, high cholesterol, thyroid disorders, or sleep apnea. Your HCP may recommend additional tests based on your medical history and the initial physical exam.

To help manage any obesity-related conditions as well as weight loss, your program can include:

- Lifestyle modifications (nutrition and physical activity)
- Pre-packaged meal replacement plans
- FDA-approved prescription weight-loss medications

Pre-packaged Meal Replacement Plans

Pre-packaged meal replacement plans are a medically supervised weight-loss program. They use meal replacement options along with lifestyle modifications and behavior change counseling to help people reach and maintain their weight-loss and health goals. These programs work as a transition to a healthier, self-prepared nutrition plan while offering education and support. Examples of these programs include:

- OPTIFAST®
- Health Management Resources™ (HMR)
- Advanced Health System™ (AHS)
- New Direction™ (Robard Corporation)
- Medi-Fast™





How Does it Work? Individuals who are interested in starting a supervised weight-loss program must do so through an HCP. Most programs list participating providers on their websites.

A medically supervised weight-loss program has individualized phases. The phases generally begin with meal replacements and transition to the use of self-prepared foods for long-term weight-loss. These programs also include guidance from a team of HCPs, access to group or individual counseling, and other support options. Each program will vary and it is important to discuss them with your healthcare provider to find the best option for you.



Weight-loss: Individual results will vary, but patients may lose as much as 50 pounds or more over 18 to 24 weeks.



Concerns: As with any meal replacement program, there are concerns about the ability of participants to successfully readjust to eating healthy, self-prepared foods following the meal replacement phase. Additionally, insurance coverage varies, so interested individuals need to review their health insurance policy and contact their health insurance company if they have questions or concerns about their coverage.





Medical Weight Management

Who is a Candidate for Medications to help treat Obesity?

While everyone would love a magic pill to help them with weight loss, the reality is that lifestyle changes remain the best option for long-term success. Many people have found that lifestyle changes, combined with medications that aid in weight-loss have been very effective.

The FDA has approved six prescription medications for use in people with a BMI over 30 or a BMI over 27 when a patient has additional obesity-related conditions. You cannot make the decision to take these medications alone. They are available by prescription only, and you will need to discuss them with your HCP. Currently, they are not approved for patients to use during pregnancy.

Chronic Weight Management Medications:	Approved for	
	Short - term Use	Long - term Use
Phentermine Products Adipex-P® or Lomaira®	✓	
Other amphetamine Derivatives: Benzphetamine - Didrex Diethylpropion - Tenuate Phendimetrazine - Bontril	✓ ✓ ✓	
Orlistat Xenical® or Alli®		✓
Naltrexone HCl and Bupropion HCl CONTRACE®		✓
Phentermine -Topiramate ER Qsymia®		✓
Liraglutide Injection Saxenda®		✓

The average weight-loss results from prescription weight-loss drugs are 5-10% of your starting weight. It is important to know that everyone responds differently to medications. The average result will be seen by most people who take the medication, while others will see a larger amount of weight-loss or none at all.



Work with your HCP to set realistic goals and develop a complete understanding of the potential results and side effects of medications used to treat obesity. This will help you plan for success and prepare for any set-backs on your journey with weight-loss.

Will my Insurance Cover Medications to Treat Obesity?

Insurance coverage of prescription weight-loss medications varies by state and by an insurance provider. You can log-into your insurance provider's website and look under the pharmacy benefits page to see if your insurance plan covers the medication you are considering.

A Closer Look at Medical Weight-loss Medications:

Phentermine (Adipex®, Lomaira® and Suprenza®)



How does it work? Phentermine is a weight-loss medication that is available by prescription only and has been FDA-approved since 1959. It works on chemicals in your brain to decrease your appetite and includes a mild stimulant to give you energy. Phentermine is a pill taken once a day in the morning and is intended for short-term use. Common side effects are dry mouth and insomnia.



Weight-loss: The average weight-loss is 4-5% of your initial body weight after one year. For a person weighing 200 pounds, that means about a 10- pound weight-loss.



Concerns: The stimulant may increase your blood pressure and heart rate, so you must be monitored by an HCP who is experienced in prescribing this medication. Patients with some heart conditions (such as uncontrolled blood pressure), glaucoma, stroke, or overactive thyroid should avoid this medication.

Orlistat (Xenical® and Alli®)



How does it work? Orlistat is available over-the-counter as alli® and in a higher-dose by prescription called Xenical®. Both are FDA-approved for weight-loss and work by decreasing the amount of fat your body absorbs. It is taken three times per day before meals that contain dietary fat. Orlistat allows your body to only absorb 2/3 of the calories from the fat consumed in your meal. The other 1/3 is carried away through digestion and becomes part of your stool. More information can be found at **MyAlli.com**.



Weight-loss: The average weight-loss is 5% of your initial body weight. For a person weighing 200 pounds, that means about a 10- pound weight-loss.



Concerns: This medication does not work well for people already eating a low-fat diet as their calories from fat are already low. People taking Orlistat should take a multivitamin as there is a chance for vitamin deficiency. Side effects are limited but can include cramps, gas, stool leakage, oily spotting, and gas with discharge. These symptoms will improve with a lower-fat diet.

Naltrexone HCl/Bupropion HCl (Contrave®)



How does it work? Contrave® was approved by the FDA in 2014 and is a combination of two medications approved for other medical conditions. Naltrexone is a medication previously approved for the treatment of narcotic and alcohol dependency. Bupropion is approved as an anti-depressant and a medication to help people stop smoking. When used together, they work to decrease appetite and control eating.



Weight-loss: Among individuals who took Contrave® for one year, 65% lost at least 5% of their initial body weight (10-pound weight loss for a person who weighs 200 pounds) and 39% lost at least 10% of their body weight (20 pound weight-loss for a person who weighs 200 pounds).



Concerns: The most common side effects are nausea, constipation, headache, dry mouth, vomiting, and dizziness. This medication also had a small occurrence (6%) of increased blood pressure and heart rate.

Phentermine-Topiramate ER (Qsymia®)



How does it work? This combination of medication was approved by the FDA in 2012. Phentermine is a weight-loss drug that received FDA approval in 1959. Topiramate is traditionally used for migraine prevention and in seizure prophylaxis. Together, they work to decrease your appetite and increase a feeling of fullness after eating.



Weight-loss: Weight loss can vary by dosage. At the lower dose, 62% of individuals on Qsymia® lost 5% of their starting body weight. (*10-pound weight loss for a person who weighs 200 pounds*). Among people taking the higher dose, 48% lost 10% of their starting weight (*20-pound weight loss for a person who weighs 200 pounds*).



Concerns: The most common side effects are dry mouth, constipation, and pins-and-needles feelings in the face, arms, hands, and feet. Insomnia may occur if taken later in the day. Women who are pregnant or who are considering becoming pregnant should not take Qsymia® as it has been known to cause birth defects.

Liraglutide Injection (Saxenda®)



How does it work? Liraglutide is an injectable medication that was approved by the FDA in 2014. It works by increasing your body's natural production of insulin, which regulates blood sugar levels. It also decreases the production of a hormone that opposes insulin, slows down the emptying of the stomach, and helps regulate fullness. It is also used to treat type 2 diabetes.



Weight-loss: In a study of individuals who were on Saxenda® for one year, 73% lost at least 5% of their starting body weight (10-pound weight loss for a person who weighs 200 pounds), and 41% lost at least 10% of their initial body weight (20-pound weight loss for a person who weighs 200 pounds).



Concerns: The most common side effects are nausea, vomiting, diarrhea, and constipation.

ADDENDUM FROM KUMC MEDICAL CENTER (12/13/22):

Since this pamphlet was published, additional medications have been approved by the FDA. Please consult your doctor if you are interested in learning more or go to:

<https://www.niddk.nih.gov/health-information/weight-management/prescription-medications-treat-overweight-obesity>



BARIATRIC SURGERY AND DEVICES

Bariatric surgery is a safe and effective treatment option for those living with severe obesity and for some living with obesity combined with other obesity-related conditions. These procedures are recognized for the metabolic and hormonal changes that have a role in hunger (wanting to eat) and satiety (feeling full). They also play a role in the improvement and/or resolution of conditions that can occur as a result of obesity and severe obesity.

Bariatric surgery is a recognized and accepted approach for both weight loss and treatment of many of the conditions related to obesity. However, not everyone qualifies for bariatric surgery. There are certain requirements people must meet in order to be a candidate for bariatric surgery.

In addition to bariatric surgery, FDA-approved bariatric devices are available for the treatment of obesity. These devices are not approved for the treatment of severe obesity.



Important Things to Remember:

- It is important to note that there are risks involved with all surgeries and medical procedures, including those for obesity and severe obesity. Before making a treatment decision, it is important to discuss these risks with your primary care provider and/or surgeon. The OAC also encourages individuals to discuss these risks with their family members.
- The OAC uses the term “total body weight loss” when discussing bariatric surgery and procedure options. You may encounter materials from your primary care provider and/or surgeon that use the term “excess body weight.” To be fully informed of actual, potential weight-loss results, ask your provider which method they are using when discussing surgical options for weight loss.

Could You be a Candidate for Bariatric Surgery?

In 1991, the National Institutes of Health (NIH) issued a statement declaring bariatric surgery an effective approach for consistent, long-term weight loss for people with severe obesity. The NIH also established the following criteria for candidacy for bariatric surgery:

- Body mass index (BMI is a measure of weight relative to their height) thresholds of:
 - A BMI > 40 or weighing more than 100 pounds over an ideal body weight.
 - A BMI between 35 and 40 combined with certain obesity-related conditions such as type 2 diabetes, high blood pressure, sleep apnea or high cholesterol.
- No endocrine causes of obesity (hypothyroidism, polycystic ovarian syndrome, etc.).
- There is an acceptable operative risk (the procedure does not put the patient at undue risk).
- The patient understands the surgery and its risks.
- The patient does not have a drug or alcohol addiction.
- The patient does not have uncontrolled psychological conditions.
- The patient has had failed attempts at weight-loss (diets and other weight-loss options). If you believe you might be a candidate for bariatric surgery, you will need to consult with your primary care provider (PCP) and insurance provider.

Benefits:

Within two to three years following bariatric surgery, patients usually have a weight-loss of 10-35% of their total (pre-surgery) body weight. Results depend on the procedure and vary by individual. If you are considering bariatric surgery, talk with your PCP about what your personal expectations for weight-loss should be.

Bariatric surgery can often help with obesity-related conditions such as type 2 diabetes, high blood pressure, sleep apnea and others. Quite often these conditions are reduced in severity or go into remission. Many surgery patients find they need fewer medicines following surgery and may be able to discontinue some completely.

Risks:

Research has shown that some patients who have bariatric surgery have unsatisfactory weight loss or regain much of the weight they lost following surgery. Some lifestyle behaviors such as frequent snacking on high-calorie foods or a lack of exercise can contribute to less weight-loss and to weight regain. Surgical complications (such as separated stitches) may also contribute to less weight loss. Additional complications exist for different surgeries and devices and are discussed in the following pages.



Please remember, bariatric surgery is not “an easy way out.” It is a treatment option that is one tool patients use to lose weight. Surgery is a resource to help reduce weight and improve weight management. Lifestyle modifications, including healthy eating, portion control, physical activity and psychological changes, are needed to meet and maintain weight-loss goals.



Commonly Used Terms for Bariatric Surgery

In this section, you will see terms you may not be familiar with. Here you will find a brief description of these terms as they are used when talking about bariatric surgery.

Open vs. Laparoscopic Procedures

In each section, you will see surgeries described as being performed open or laparoscopic. Currently, laparoscopic procedures are more common than open procedures. Your surgeon will decide which approach to use. It will depend on several factors, including the surgeon’s experience as well as your surgical and medical history. This may influence one approach being used over the other. Please be sure to discuss the surgical approach that will be used with your surgeon.

- **Open** – An open procedure involves a single incision that opens the abdomen, which provides the surgeon access to the abdominal cavity. The incision can vary in length from as little as three inches to as large as six or more inches.

- **Laparoscopic** – In laparoscopic surgery, a small video camera is inserted into the abdomen through a small incision. This allows the surgeon to conduct and view the procedure on a video monitor. Both the camera and the surgical instruments are inserted through small incisions made in the abdominal wall. The number of incisions will vary depending on the surgical procedure and the surgeon's experience. Some surgical procedures can be performed with a single incision, while other procedures may involve six or more small incisions.

Metabolic vs. Non-metabolic

The operations in this category help patients lose weight by altering their gastrointestinal (GI) tracts. Examples include the vertical sleeve gastrectomy (VSG), Roux-en-Y gastric bypass (RNYGB), and the biliopancreatic diversion with duodenal switch (BPD/DS).

Metabolic Operations – These operations help patients lose weight by altering their GI tracts. By doing this, a patient's physiological response to fat loss is changed. Metabolic surgery changes the way your gut hormones are secreted. This change greatly reduces feelings of hunger, which is helpful when attempting to lose weight. Recent research indicates that bariatric surgery works in two ways:

1. The procedure itself
2. The metabolic changes that occur in the gut hormones due to the surgery

Numerous studies have examined pre-operative and post-operative gut hormone levels after bariatric surgery. A brief summary of hormonal changes after each bariatric procedure is provided in the next sections. Some of these hormones are:

- **Ghrelin:** functions primarily to stimulate appetite.
- **Glucagon-like peptide 1 (GLP-1):** works to have increased satiety (fullness) and reduced stomach emptying.
- **Peptide YY (PYY):** reduces appetite and increases the efficiency of digestion and nutrient absorption.

Non-metabolic Operations – The options in this category provide significant weight-loss without altering the physiology of energy (fat) storage. One example is the laparoscopic adjustable gastric band (LapBand®). They are considered non-metabolic options because they do not alter the body's normal mechanisms that occur when dieting. With bandings and with dieting, orexigenic hormones (appetite stimulant) increase, and anorexigenic (appetite suppressant) hormones decrease.

Bariatric Surgery Options

It is no small task to choose a weight-loss treatment option. There are many choices, various costs, associated risks, and many benefits. It is our goal to provide you with background information for the different types of bariatric surgeries and devices. This can help you when having a discussion with your physician about the best treatment options for you.

Bariatric surgery requires proper follow-up and participation in an integrated program that stresses lifestyle modifications (dietary, behavioral and exercise changes). This will improve the chances for a bariatric surgery patient to maximize their weight loss and maintain it for a lifetime.

Bariatric Surgical Procedures Include:

- Adjustable Gastric Banding (LAP-BAND®)
- Sleeve Gastrectomy
- Roux-en-Y Gastric Bypass
- Biliopancreatic Diversion with Duodenal Switch

Qualifications for Sleeve Gastrectomy, Roux-en-Y Gastric Bypass, and Biliopancreatic Diversion with Duodenal Switch are all the same. However, LAP-BAND® has different criteria. The LAP-BAND® has been FDA-approved for patients with a lower BMI (BMI is at least 40 or with a BMI of at least 30 with one or more obesity-related conditions).

Please be sure to discuss the various surgical options with your physician to determine which procedure is best for you and your medical and surgical history.

Adjustable Gastric Banding (Non-Metabolic)



What is Adjustable Gastric Banding and how is it performed? An example of an adjustable gastric banding is the LAP-BAND®. This operation involves placing a silastic “belt” around the upper part of the stomach. The “belt” essentially separates the stomach into two parts: a tiny upper pouch and a larger lower pouch.

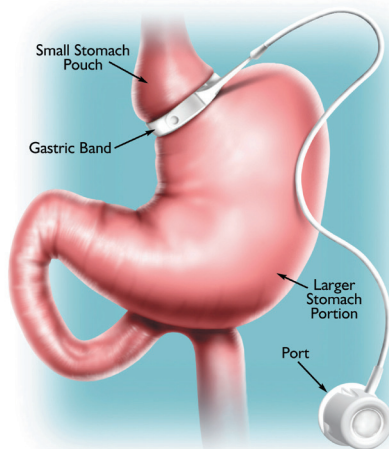


Photo courtesy of Ethicon

The band is connected by tubing to a port (filling reservoir) that sits below the skin of the abdominal wall, usually around the belly button (the port site varies widely by surgeon). The port cannot be seen (and often cannot be felt) from the outside.

Inside of the “belt” is a balloon that can be filled with fluid through the port. As the balloon is filled, it slows the passage of food from the upper pouch into the lower pouch. As the band is progressively filled, patients will feel more “full” with smaller amounts of food. You will work with your surgeon to determine the number of band fills or adjustments appropriate for you.



Weight-loss: Weight loss with an adjustable gastric band is typically slow and steady. Band patients generally lose one to two pounds per week during the first year after band placement. On average, by year one, band patients lost approximately 14% of their total body weight (weight at time of procedure). In a 350 pound person, this would mean a 49-pound weight loss. By year three, band patients lost approximately 15.9% of their total body weight (weight at time of procedure).



Metabolic/Hormonal Changes: With this procedure, there are minimal metabolic and hormonal changes.



What are the Benefits of Gastric Banding? There are several features that make the adjustable gastric band appealing.

- There is minimal stress to the body at the time of surgery because the band is almost always placed laparoscopically and does not involve cutting the stomach or rerouting the intestines.
- Most patients can go home the same day or the next morning.
- Recovery from surgery is usually quick, and most people return to work a week or so after surgery.
- The adjustability of the band makes it unique among weight-loss operations. This feature allows the possibility of making band adjustments based on the individual weight-loss goals and needs of the patient.
- The stomach and intestines are not bypassed, so vitamin, mineral, and nutrition problems after banding are less common. However, many programs still recommend taking vitamin supplements after banding.
- While it is a non-metabolic procedure, some patients have reported a reduction in feelings of hunger.



Complications: Patients contemplating adjustable gastric banding must be comfortable with the thought of having a medical device in them for life. Although the band has an excellent safety profile, some complications can occur with any weight-loss operation, and the band is no different. It is important for patients to have routine follow-up appointments with their healthcare team for adjustments and monitoring.

About 30-50% of patients will require a second operation to address a problem with their band.

Potential complications include band slippage or gastric prolapse, band erosion through the stomach, or tubing leakage. The risk of death from band surgery is equal to or less than 0.1% (1 in 1000) within 30 days after surgery. However, many centers report even lower rates. The adjustable gastric band can be removed, if necessary.

It is important to realize that the band is not a short-term fix. It is intended to be left in your body indefinitely. As with other medical devices implanted in the body, long-term effects (20 to 30 years) are unknown at this time with the band.

In the first year after surgery, when band adjustments may be required more frequently, patients need to be available for regular follow-ups with their healthcare team. In deciding if banding is right for you, it is important to consider both the time and distance involved in traveling to where the adjustments will be performed. Adjustments are made by filling the band through the port with fluid through a needle.

Band patients do not suffer adverse effects from eating sugars (dumping syndrome), so they need to be more disciplined in their food choices. Foods and beverages like sodas, ice cream, cakes, and cookies slide through the band easily. These choices will not lead to the desired goal of significant weight-loss.



Conclusion: Adjustable gastric banding is an effective weight-loss operation that can lead to meaningful, long-term weight-loss. No matter what weight-loss operation is chosen, individuals need to change their lifestyle and learn to work with the band to be successful.

Sleeve Gastrectomy (Metabolic)



What is a Sleeve Gastrectomy?

The sleeve gastrectomy (LSG) is part of another bariatric surgery option. LSG is the restrictive part of the duodenal switch operation. Recently, it has been used by some surgeons as a staging procedure before a duodenal switch in very high-risk patients. It has also been used as a stand-alone procedure for some patients.

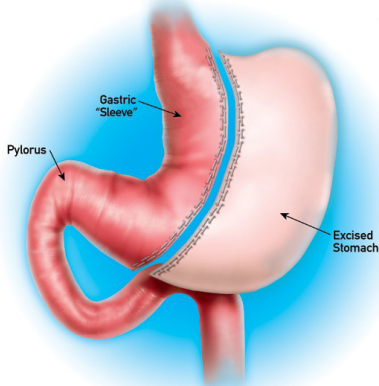


Photo courtesy of Ethicon



How is the Sleeve Gastrectomy performed? The majority of LSG's performed are completed laparoscopically. During the LSG, about 75% of the stomach is removed. This leaves a narrow gastric tube or "sleeve." No intestines are removed or bypassed during this procedure and it generally takes about one to two hours to complete. When compared to the gastric bypass, the LSG can offer a shorter operative time that can be an advantage for patients with severe heart or lung disease.



Weight-loss: The LSG procedure greatly reduces the size of the stomach and limits the amount of food that can be eaten at one time. It does not cause decreased absorption of nutrients or bypass the intestines. After this surgery, patients feel full after eating very small amounts of food. LSG may also cause a decrease in appetite. On average, by year three, sleeve patients lost approximately 21% of their total body weight (weight at time of procedure). In a 350 pound person, this would mean a 74-pound weight loss.



Metabolic/Hormonal Changes: In addition to reducing the size of the stomach, the procedure reduces the amount of the "hunger hormone," ghrelin, produced by the stomach. The duration of this effect is not clear yet, but most patients have significantly decreased hunger after the operation.



- Decrease Ghrelin = Decrease hunger



- Increase PYY = Increase satiety



- Increase GLP-1 = Increase satiety



Complications: LSG has been used successfully for many individuals affected by severe obesity. Since it is a relatively new procedure, there is no data regarding weight-loss or weight-regain beyond three years. The risk of death from LSG is 0.2% (2 in 1000) within 30 days after surgery. The risk of major postoperative complications after LSG is 5-10%, which is less than the risk associated with gastric bypass. This is primarily because the small intestine is not divided and reconnected during LSG. This lower risk and shorter operative time is the main reason for use as a staging procedure for high-risk patients.

Complications that can occur after LSG include:

- A leak from the sleeve can result in an infection or abscess
- Deep venous thrombosis (blood clot) or pulmonary embolism
- Narrowing of the sleeve (stricture) requiring endoscopic dilation
- Bleeding

Major complications requiring re-operation are uncommon after sleeve gastrectomy and occur in less than 5% of patients.



Conclusion: LSG is a bariatric surgery procedure that can lead to significant weight-loss. As with any bariatric surgery procedure, the best results are achieved when the surgery is combined with a multi-disciplinary program that focuses on lifestyle and behavioral changes.

Roux-en-Y Gastric Bypass (Metabolic)



What is a Roux-en-Y Gastric Bypass? The Roux-en-Y gastric bypass operation has been performed since the late 1960s as a treatment for people affected by severe obesity. The operation leads to weight loss through two ways:

1. A small stomach pouch reduces the amount you can eat.
2. A small amount of intestine is bypassed, leading to an earlier hormone that makes you feel less hungry.



How is it performed?

A gastric bypass can be done through a single long incision (open) or through series of small incisions (laparoscopic). No matter how the operation is done, the "inside part" is the same.

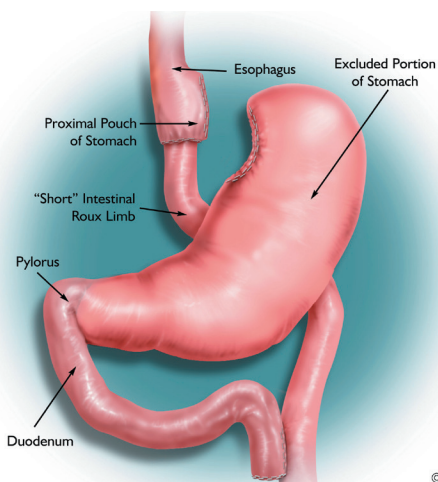


Photo courtesy of Ethicon

©

The surgery involves three basic steps:

1. Dividing the large stomach into two separate stomachs, creating a small pouch (proximal pouch of stomach) and a larger excluded lower pouch (remnant pouch of stomach).
2. Bypassing part of the small intestine (creating the "Short" Intestinal Roux Limb).
3. Attaching the bypassed intestine (Roux Limb) to the proximal pouch.

The operation can usually be done in two hours or less, but it will depend on many factors. Most patients will need to stay in the hospital for two to three days after their operation and should be ready to return to full activity within two weeks.



How does it work? To understand how a gastric bypass leads to weight loss, it is helpful to review what you probably learned in grade school: human digestion.

When we swallow food, it goes down the esophagus and into the stomach. The stomach can hold huge amounts of food (think about a hot dog eating contest). The stomach then churns the food and mixes it with digestive juices to break the solid food down into a liquid form. That liquid food then leaves the stomach and goes into the small intestine where it can be absorbed to help fuel our bodies.

The small gastric pouch created during the gastric bypass limits the amount of food (calories) a person can eat during a meal. The pouch will initially hold a very small amount of food (about half a shot glass full or one tablespoon). However, by one-year post-surgery, a gastric bypass patient will be able to eat a meal equal in size to what a seven or eight-year-old child typically eats. Although the meals after gastric bypass surgery are much smaller than what they were before surgery, they still give the individual the same feeling of being full they used to get with a much larger meal. Until food is broken down into the liquid form, it cannot be absorbed by the small intestine. After a gastric bypass, the food does not turn into liquid until it leaves the "Short Intestinal Roux Limb" (see the image of gastric bypass). The "Short Intestinal

Roux Limb” therefore does not absorb all of the nutrients from food that is eaten (called malabsorption). This also means vitamins and minerals aren’t as well absorbed, so gastric bypass patients must be on vitamin and mineral supplements for the remainder of their life.

The “Short Intestinal Roux Limb” does not handle sugar or starches well, so gastric bypass patients must limit their intake of sugary and starchy foods. If they don’t, they may experience something referred to as dumping syndrome. Usually 10-15 minutes after eating a sugary or starchy food, the individual who is “dumping” begins to experience many of the following symptoms:

- Sweating
- Flushing skin
- Rapid heart rate
- Dizziness
- Low blood pressure
- Abdominal pain
- Vomiting
- Diarrhea
- Shakiness
- Fainting

Dumping can last for 30-45 minutes before going away. Limiting sugars and starches will limit dumping. For many people who have had a gastric bypass, dumping, or the fear of dumping helps them make better food choices and stay away from foods that have tempted them in the past.



Weight-loss: On average, by year one, bypass patients lost approximately 34% of their total body weight (weight at time of procedure). In a 350 pound person, this would mean a 119-pound weight loss. By year three, bypass patients lost approximately 31.5% of their total body weight (weight at time of procedure).



Metabolic/Hormonal Changes: In addition to reducing the size of the stomach, the procedure reduces the amount of the “hunger hormone,” ghrelin, produced by the stomach. The duration of this

effect is not clear yet, but most patients have significantly decreased hunger after the operation.



- Decrease Ghrelin = Decrease hunger
- Increase PYY = Increase satiety
- Increase GLP-1 = Increase satiety



Complications: The major complications with gastric bypass include bleeding, leakage, infections, bowel blockages, blood clots in the lungs (pulmonary emboli), and death. The chance of dying in the first 30 days after a gastric bypass is around 0.2 – 0.5% (2 to 5 in 1000).

Long-term complications that can occur after a gastric bypass include strictures, ulcers, hernias, weight regain, vitamin and mineral deficiencies, and malnutrition. Most of the long-term problems linked to the gastric bypass operation can be prevented by follow-up appointments with your healthcare team.



Conclusion: Gastric bypass is a weight-loss operation that can lead to significant and sustained weight-loss by reducing food intake and altering gastrointestinal hormones. While there are short and long-term risks associated with the surgery, most of these issues can be prevented. As with any weight-loss operation, the best results are achieved when the surgery is combined with a program that also focuses on lifestyle and behavioral changes.

Biliopancreatic Diversion with Duodenal Switch (Metabolic)



What is a Biliopancreatic Diversion with Duodenal Switch?

The Biliopancreatic Diversion with Duodenal Switch (BPD/DS) is often an open operative procedure. However, it can also be performed laparoscopically.

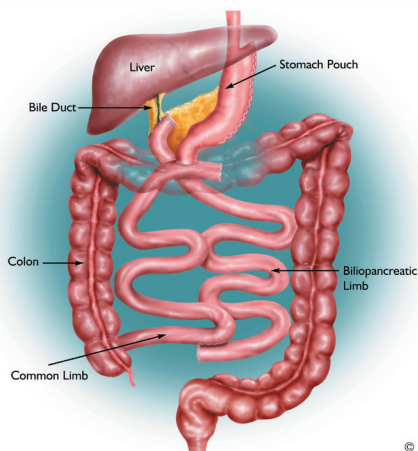


Photo courtesy of Ethicon



How is the Biliopancreatic Diversion with Duodenal Switch performed?

The outer part of the stomach is removed (approximately two thirds—similar to a sleeve gastrectomy), and the intestines are rearranged to shorten the area where the food mixes with the digestive juices.

A portion of the stomach is left with the pylorus still attached and the duodenum beginning at its end. The duodenum is then divided, allowing for the pancreatic and bile drainage to be bypassed. It is a pyloric saving procedure which eliminates the “dumping syndrome” that is inherent to gastric bypass.



Weight-loss: This procedure results in decreased absorption of fat, calories, and other nutrients which may result in increased weight loss. Foods high in fat content are not easily absorbed and will be eliminated along with the usual high calories associated with the high-fat. On average, by year three, BPD/DS patients lost approximately 35% of their total body weight (weight at time of procedure). In a 350 pound person, this would mean a 123-pound weight loss.

As in all bariatric surgery procedures, carbohydrates and sugars are absorbed, so eating foods high in sugar (and calories) will still cause unwanted weight gain or difficulty in losing weight. It is important to remember that eating healthy foods (high in nutrition, low in fat and calories) will help with weight loss. The BPD/DS allows patients to increase portion size over time and have a greater diversity in foods at each meal.



Metabolic/Hormonal Changes: BPD/DS is successful for weight-loss and health through metabolic mechanisms. The alimentary limb absorbs proteins and sugars from ingested food, but also secretes the hormone GLP-1 in the presence of undigested food. BPD/DS rearranges this portion of the intestine, causing food to be introduced into the alimentary limb earlier, which enhances GLP-1 secretion.



- Decrease Ghrelin = Decrease hunger



- Increase PYY = Increase satiety



- Increase GLP-1 = Increase satiety



Complications: When performed as an open procedure, the BPD/DS:

- Has a long recovery period (usually six to eight weeks)
- Causes the greatest risk for infection (due to the size of the incision, increased operative time and exposure of the digestive organs)
- Usually carries a 25% chance for the development of incisional hernia post-operatively (due to the length of the incision)
- Carries the highest risk of nutritional deficiencies post-operatively

Vitamin B-12 deficiencies are not created by the BPD/DS. However, all patients are monitored for iron and B-12, as well as other fat-soluble vitamin deficiencies. BPD/DS patients are specifically monitored for fat-soluble vitamin deficiencies (A,D,E,K) along with zinc.

Patients who undergo BPD/DS are able to enjoy nutritional foods and eat more normally without the restriction of a small pouch (one to two ounces) as in a gastric bypass. The BPD/DS is a more invasive operation. According to a recent analysis, BPD/DS carries a mortality rate of 1.1% (about 1 in 100) within 30 days after surgery.



Conclusion: Patients must maintain a commitment to lifestyle modifications (healthy eating and physical activity) associated with successful weight-loss. BPD/DS patients are asked to first increase their protein intake and then increase their vegetable intake. Later, if able at all, breads, pastas, or rice are allowed in very limited amounts.

Bariatric Devices

Bariatric devices are a safe, effective treatment options for individuals with obesity or severe obesity. Currently, there are three bariatric devices approved by the FDA: the ORBERA™ Intra gastric Balloon, AspireAssist™, and Plenity®.

ORBERA™ Intra gastric Balloon (Non-Metabolic)



PLEASE NOTE: If you have previously had a specific type of bariatric surgical procedure, you may not be medically eligible for an intra gastric balloon. Please discuss this potential issue with your doctor.



What are Intra gastric Balloons? Intra gastric balloons are soft and durable silicone spheres that take up space in a patient's stomach. They help reinforce proper portion control by providing a feeling of being full while eating less food.



Who Qualifies for an Intra gastric Balloon?

Intra gastric balloons are intended for adult patients who have a body mass index (BMI) of 30 to 40. Intra gastric balloons are also an option for individuals who do not want or do not qualify for more invasive bariatric surgery.

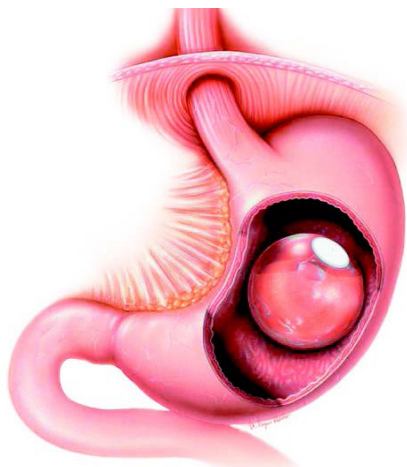


Photo courtesy of Apollo Endosurgery



How Does an Intra gastric Balloon Work? The ORBERA™ Intra gastric Balloon is a single balloon that is inserted into the stomach using an endoscope. It is then filled with saline (saltwater) until it is about the size of a grapefruit. Intra gastric balloons occupy some of the existing space in your stomach for six months, serving as built-in portion control. It allows you to feel full and satisfied with less food. After six months, the balloon is removed in the same way it was placed, endoscopically.

Through a procedure done under a mild sedative, it is deflated and then removed through the esophagus and mouth.



What Are The Risks? More than 15,000 balloons of the liquid filled type have been placed in the U.S., and over 350,000 have been placed worldwide. The device has been through extensive trials that show relative safety and effectiveness, however, nothing is absolutely safe and without risks. The FDA is doing its job to follow up on the ongoing use of these devices, and intragastric balloon treatment has a mortality rate less than 1 in 10,000, and considered a safe procedure.



Weight-loss: U.S. clinical trial data on ORBERA™ showed that within six months, the average person lost 3.1 times the amount of weight as compared with diet and exercise alone. In real numbers, that means patients with ORBERA™ lost an average of 21.8 pounds (10.2% of their body weight) after the device had been in place for six months. The clinical trial for ORBERA™ also demonstrated that three months after the device was removed (nine months after device placement), ORBERA™ patients maintained an average weight loss of 19.4 pounds. During the trial, those patients who participated in a behavior modification program (diet, exercise, and emotional coaching) but did not receive the ORBERA™ balloon, only lost an average of seven pounds (3.3% of their body weight).



Concerns: Following the procedure, you may experience some discomfort as your stomach gets used to the intragastric balloon. Side effects may include nausea, vomiting, and gastric discomfort during the first week. These symptoms can be alleviated with medications and by working with your HCP. These side effects are normal and are to be expected.

AspireAssist™ (Non-Metabolic)



What is AspireAssist™? AspireAssist™ is a weight-loss device option approved by the FDA. Patients with a BMI between 35 and 55 who have tried to lose weight before may qualify for this device treatment. The device is placed through an outpatient, endoscopic

(through your mouth) procedure. The device consists of two components; one implanted inside the patient and one which is used to aspirate following meals.

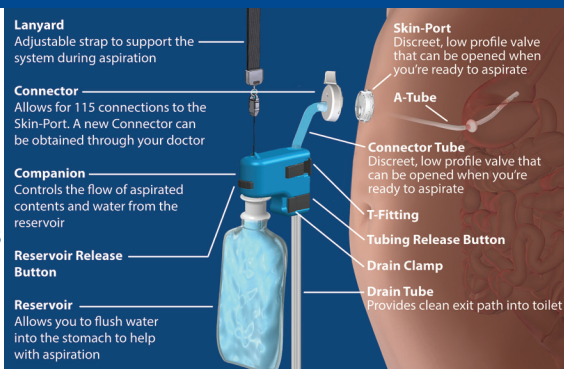


Photo Courtesy of Aspire Bariatrics

Weight-loss:

Weight-loss with AspireAssist™ generally averages 14% of total body weight following one year of aspiration and lifestyle therapies. At first, weight loss may be higher, but over time the target average is one to two pounds lost per week. Learning to chew food carefully, drink plenty of water with meals, aspirate on a regular basis, and eat a healthier diet are key components to weight-loss success with this device.

After a patient's goal weight is reached, AspireAssist™ is often left in place for several months to monitor for weight maintenance. HCPs and patients will work together to decide when to remove the device.

How Does AspireAssist™ Work? AspireAssist™ works by using a tube that leads from your stomach to a port that connects to a companion system, which allows for the aspiration of food following meals. The device helps in weight-loss by allowing patients to remove up to 30% of the calories they consume at a meal through aspiration. Patients also learn to eat less and make healthier food choices through lifestyle therapy.

Complications: Following the outpatient procedure, patients may experience abdominal pain or discomfort from the device, implantation discomfort, or nausea and vomiting from the sedation medication. The most common side effect of the device and aspiration therapy is skin irritation at the port site. Less common side effects include infection and continued abdominal pain. Fewer than 4% of patients experienced a serious adverse effect that lead to an overnight hospital stay or could lead to serious harm, and all were treated with medication or device removal.



Conclusion: Studies have shown AspireAssist™ to be a safe and effective weight-loss device option. When used correctly and combined with lifestyle therapy and routine HCP visits, weight-loss was three times higher than with lifestyle modification alone.

Plenity®

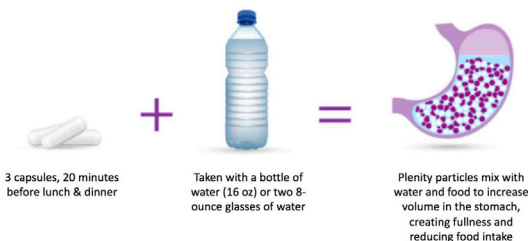


What is Plenity®?

Plenity® is a new class of weight-loss options called “super absorbent

hydrogels.” Technically,

the Food and Drug Administration (FDA) cleared Plenity® as a device, but it is actually a pill (capsule) that is taken daily with lunch and dinner to help with weight loss. Through some impressive food engineering, these capsules release thousands of particles that swell and enlarge in the stomach. The particles then mix with food and travel through the intestines, where they increase fullness and help patients lose weight.



Weight-loss: Plenity®, combined with diet and exercise, may help patients lose an average of 5-10% of their total body weight. Some patients may be extra responsive to Plenity® and lose more weight than others, averaging close to 10% weight loss. Those who tend to “respond better” to Plenity® are those who lose three percent or more of their weight in the first eight weeks of using it.

It should also be noted that Plenity® is meant to be used with a proper diet and exercise for the best weight loss outcomes.



How Does Plenity® Work? The pill is swallowed with meals and contains thousands of small particles that expand up to 100 times when taken with water. It has the firmness of solid food similar to vegetables. Plenity® mixes with food in the stomach and travels down the intestines in this enlarged form. The pill expands in the stomach and stays expanded as it works its way through the first part of the intestines. When Plenity® reaches the end of the intestines (colon or large intestine), the water is reabsorbed by the intestines. When the intestines reabsorb the water, the particles

shrink down to their original small size and get eliminated with the next bowel movement.



Complications: The most common side effects seen in Plenty® users were GI (digestive system). These side effects include, diarrhea, decreased bowel movements, constipation, abdominal digestion, flatulence (gas) and nausea.



Conclusion: Plenty® can generally be used safely in anyone who wants to lose weight for various reasons. Plenty® moves through the intestines naturally and The results help patients feel fuller, eat less and lose weight.

CONCLUSION

There are many safe and effective choices available for the treatment of obesity and severe obesity. Just remember there is no one miracle treatment for anyone and what worked for someone you know, may not be the best option for you. Treating obesity and managing your weight is hard, and there will be ups and downs along the way, no matter what options you choose. Working with a team of HCPs will help. You can work together to pick (and modify) the tools you need to be healthier.



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BMI CHART

WEIGHT IN POUNDS

	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390	400
5'0"	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59	61	63	65	67	69	71	72	74	76	78
5'1"	24	26	28	30	32	34	36	37	39	42	44	45	47	49	51	53	55	57	59	61	63	64	66	68	70	72	74	76
5'2"	23	25	27	29	31	33	34	36	38	40	42	44	46	48	50	51	53	55	57	59	61	62	64	66	68	70	72	73
5'3"	23	24	26	28	30	32	33	35	37	39	41	43	44	46	48	50	52	53	55	57	59	60	62	64	66	67	69	71
5'4"	22	24	25	27	29	31	32	34	36	38	40	41	43	45	46	48	50	52	53	55	57	59	60	62	64	65	67	69
5'5"	21	23	25	26	28	30	31	33	35	37	38	40	42	43	45	47	48	50	52	53	55	57	58	60	62	63	65	67
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5'7"	20	22	23	25	26	28	29	31	33	35	36	38	39	41	42	44	46	47	49	50	52	53	55	57	58	60	61	63
5'8"	19	21	22	24	25	27	28	30	32	34	35	37	38	40	41	43	44	46	47	49	50	52	53	55	56	58	59	61
5'9"	19	20	22	23	25	26	28	29	31	33	34	36	37	39	40	41	43	44	46	47	49	50	52	53	55	56	58	59
5'10"	18	20	21	23	24	25	27	28	30	32	33	35	36	37	39	40	42	43	45	46	47	49	50	52	53	55	56	58
5'11"	18	19	21	22	23	25	26	28	29	31	32	34	35	36	38	39	41	42	43	45	46	48	49	50	52	53	55	56
6'0"	17	19	20	21	23	24	25	27	28	30	31	33	34	35	37	38	39	41	42	44	45	46	48	49	50	52	53	54
6'1"	17	18	19	21	22	23	25	26	27	29	30	32	33	34	36	37	38	39	41	42	44	45	46	48	49	50	52	53
6'2"	16	18	19	20	21	23	24	25	27	28	30	31	32	33	35	36	37	39	40	41	42	44	45	46	48	49	50	51
6'3"	16	17	18	19	21	22	23	24	26	28	29	30	31	33	34	35	36	38	39	40	41	43	44	45	46	48	49	50
6'4"	15	17	18	19	20	21	23	24	26	27	28	29	31	32	33	34	35	37	38	39	40	41	43	44	45	46	48	49
6'5"	15	16	17	19	20	21	22	24	25	26	27	29	30	31	32	33	34	36	37	38	39	40	42	43	44	45	46	48

Underweight = Less than 18.4

Normal = 18.5 - 24.9

Overweight = 25 - 29.9

Obesity = 30 - 39.9

Severe Obesity = Greater than 40



ABOUT THE OBESITY ACTION COALITION (OAC)

The Obesity Action Coalition (OAC) is a National non-profit organization dedicated to giving a voice to individuals affected by obesity and helping them along their journey toward better health. Our core focuses are to elevate the conversation of weight and its impact on health, improve access to obesity care, provide science-based education on obesity and its treatments, and fight to eliminate weight bias and discrimination.



**PUBLIC
EDUCATION**



ADVOCACY



**ANNUAL
CONVENTION**



**NATIONAL
AWARENESS
CAMPAIGNS**



**VIBRANT
COMMUNITY**

LEARN, CONNECT, ENGAGE

The OAC knows that the journey with weight can be challenging but we also know that great things happen when we learn, connect and engage. That is why the OAC Community exists. Our Community is designed to provide quality education, ongoing support programs, an opportunity to connect, and a place to take action on important issues.

**Through the OAC Community,
you can get access to:**

- Weight & Health Education • Community Blogs
- Community Discussion Forum
- Ongoing Support • Meaningful Connections
- AND MUCH MORE



**OAC
Community**

JOIN TODAY: GO TO [OBESITYACTION.ORG/JOIN](https://obesityaction.org/join)

info@obesityaction.org

(800) 717-3117 | (813) 872-7835 | Fax: (813) 873-7838



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