

This whitepaper is presented by M. Azhar Ali, M.D. F.A.C.S., of Amae Plastic Surgery in Bloomfield Hills, Michigan. The following information about liposuction is intended to be informational and introductory. We strongly advise that anyone looking to have a liposuction procedure, or cosmetic surgery procedure of any kind, schedules a professional consultation with a plastic surgeon that is board-certified by the American Society of Plastic Surgeons.

Objective

This white paper is provided to help you better understand <u>liposuction</u> and the various procedures available today. As an introduction to liposuction, we provide general information on the following procedures:

- Suction-Assisted Liposuction
- Power-Assisted Liposuction
- Ultrasound-Assisted Liposuction
- Laser-Assisted Liposuction

For more specific information on liposuction, or to schedule a consultation with Dr. Ali, please contact Amae Plastic Surgery Center.

About Dr. Ali

Dr. Ali is a board-certified <u>Michigan plastic surgeon</u>. Through his private practice, Amae Plastic Surgery Center, he has performed hundreds of liposuction procedures. Powerfully motivated to help others, he has followed his dream and has successfully pursued the art of liposuction, and has established a distinguished career in the field.

Following his medical schooling, Dr. Ali engaged in 11 years of additional training. His extensive training includes:

- Fellowship in Aesthetic and Reconstructive Breast Surgery at Women's College Hospital in Toronto
- Fellowship in Microsurgery and Trauma at St. Michael's Hospital in Toronto
- 1 year fellowship at Children's Hospital in Toronto, Canada for Pediatric Surgery
- 2 years of plastic surgery at Providence Hospital
- 5 years of general surgery training at Providence and North Oakland hospitals in Michigan
- 1 year pediatric internship in New York

In addition to education and training, Dr. Ali belongs to numerous professional organizations including the American College of Surgeons, American Society of Plastic Surgeons, American Medical Society, Michigan State Medical Society, and Oakland County Medical Society.



What is Liposuction?

Liposuction (also known as lipoplasty) is a plastic surgery procedure that slims and reshapes specific areas of the body by removing unwanted localized fat deposits. A liposuction procedure can help remove stubborn fat, even when diet and exercise cannot.

The original form of liposuction was founded in Italy in 1974 by Dr. Giorgio Fischer, but it was not until 1980 that it became extremely popular in the United States. In 1985, a California doctor, Dr. Jeffrey Klein, founded the "tumescent technique," which revolutionized the surgery and turned it into the procedure we know today. The new method used much smaller cannulas (suction tubes) and allowed patients to have a liposuction procedure with less trauma, further reducing the side effects and risks associated with lipo.

Liposuction is more often than not a standalone procedure, but in other cases it may be used with other plastic surgery procedures such as a breast reduction or a tummy tuck. Thanks to technological advancements and improvements, liposuction is one of the most commonly performed plastic surgery procedures. The American Society of Plastic Surgeons states that in 2011, nearly 205,000 patients in the United States had liposuction procedures.

The most common areas of the body for liposuction are the waist, hips, thighs, inner knee, calves, back, buttocks, arms, chest and neck. However, even smaller areas—including the cheeks, chin, and ankles—can be improved through liposuction, as localized fat deposits can build up in these areas as well.

Is Liposuction Right for You?

Liposuction is not a substitute for weight loss. It is essential that the patient has already made a concentrated effort to address the problem area(s) through a well-balanced diet and exercise. Liposuction is intended for the areas of the body that require special attention. Localized fat deposits often have to do with a patient's genetics or family traits, rather than a lack of weight control or exercise.

Any patient interested in having a liposuction procedure will first undergo a full evaluation. It is essential to confirm that their weight falls within a normal range for their height and body type. The doctor will also review the patient's medical history, future diet and exercise plans, any medications that are currently being taken, as well as the outcome desired from the liposuction procedure.

Liposuction is not appropriate for all patients, as certain conditions such as the following are indicators that liposuction may be too high a risk:

- Obesity
- Diabetes
- Smoking
- Collagen/scarring/connective tissue disorders



- Significant stretch marks
- Vascular Problems
- Recreational drug use or excessive drinking
- Depression
- Pregnancy

Assuming a patient is a healthy candidate for surgery, the following are general qualities which help in determining whether or not they will be considered a good candidate for liposuction.

- Not more than 20 pounds overweight
- Exercise regularly and are physically fit
- The patient's skin has natural elasticity that will readily recover from the fat removal and bounce back to its former tightness. Liposuction in a larger area, may require the removal of excess skin.
- The patient has realistic expectations of the outcome of liposuction.

While the above information is traditionally used as general guidelines, the only person that that can determine whether or not a patient is a good candidate for liposuction is a plastic surgeon. Although liposuction is one of the most commonly requested plastic surgery procedures, the patient's health and safety remain the top priority.

Costs of Liposuction

Because liposuction is often an elective surgery, it is not typically covered by medical insurance. The cost of liposuction is based on a number of variables, including the geographical area, fees imposed by the hospital or the facility where the procedure is being conducted, and the expertise and reputation of the plastic surgeon performing the surgery. The specific liposuction procedure as well as the particular method of liposuction necessary to accomplish the desired outcome also plays a role in pricing. Different methods utilize different tools and certain procedures take longer than others.

Liposuction can range from the low thousands to the high thousands depending on the variables of the procedure, but it is nearly impossible for any board-certified plastic surgeon to provide an accurate estimate before an in-person consultation. A patient interested in having a liposuction procedure should be wary of surgeons that offer flat rates for procedures or do not require a consultation prior to providing you with pricing.

Most reputable practices will also offer financing to assist patients with paying for their plastic surgery procedure.

Liposuction Methods and Techniques

Liposuction is not like going to the dentist. All liposuction procedures are surgical operations that require necessary precautions and patience when it comes to the healing and recovery phase.



Different types of liposuction methods are available and each is unique to the patient being treated and the <u>desired outcome of the liposuction</u>. The plastic surgeon performing the procedure will determine which liposuction method will demonstrate the least risk for the patient and yield the best results.

Different methods include Suction-Assisted Liposuction, Power-Assisted Liposuction, Ultrasound-Assisted Liposuction, and Laser-Assisted Liposuction. When it is determined which method is the best option, the specifics of the procedure will be explained in detail by the surgeon. The following is intended to serve as an introduction only to each method.

Suction-Assisted Liposuction

Also known as SAL, suction-assisted liposuction is the standard method of liposuction. In this type of liposuction, a small tube called a cannula is placed in the localized fat deposit through a very tiny incision. The cannula is moved in a push/pull motion by the plastic surgeon, which loosens up and breaks apart the fat layer. The cannula operates like a vacuum and the fat cells are then suctioned out of the patient's body.

Because suction-assisted liposuction is known to have the most dramatic results, it is one of the most commonly performed liposuction techniques. Many female patients will undergo suction-assisted liposuction surgery to remove unwanted fat deposits from their abdomens, thighs, waist and buttocks. Men as well undergo suction-assisted liposuction, frequently to reduce the amount of localized fat found in the abdomen, chest or waist.

Before the surgery, general anesthesia is used to sedate the patient, and is administered by an anesthesiologist. Depending on the scope of the liposuction procedure, the patient can expect to be under anesthesia from as little as one hour, or up to six hours.

A suction-assisted liposuction procedure is normally an outpatient procedure and does not require the patient to stay hospitalized for any prolonged period of time. However, if the procedure is a more extensive procedure, or is combined with another procedure, the plastic surgeon may require that the patient stay overnight for monitoring.

Power-Assisted Liposuction

Also known as PAL, power-assisted liposuction is extremely similar to the traditional method of suction-assisted liposuction. The only difference between the two methods is the actual cannula being utilized to perform the surgery. Power-assisted liposuction uses a special cannula with mechanized movement so that the plastic surgeon does not need to make as many manual push/pull movements.

While power-assisted liposuction devices have just recently become available to surgeons, many doctors are using these specialized devices to shorten the period of time it takes to remove fat from the body



and minimize to bruising and recovery time. The power-assisted cannula produces rapid, tiny vibrations to break up the fat versus the traditional suction-assisted method of manually performing a push/pull motion.

Ultrasound Assisted Liposuction

In an ultrasound-assisted liposuction procedure (also known as UAL), a specific type of cannula is used in addition to the traditional suction-assisted liposuction method. The ultrasound-assisted cannula is attached to an ultrasonic device that delivers sound waves capable of breaking up the fat cells.

Ultrasound-assisted liposuction is often used when the localized fat deposit is too fibrous or tough, and additional assistance is required to ensure success alongside minimum bruising and/or discomfort. If the fat is fibrous or tough, this is a less intrusive liposuction method because it causes reduced impact to the blood vessels, connective tissues and surrounding area – which essentially results in a shortened recovery process.

Ultrasound-assisted liposuction, like the previously mentioned methods of liposuction, is normally an outpatient procedure and does not require the patient to stay hospitalized for any prolonged period of time. However, ultrasound-assisted liposuction can also be combined with a series of other procedures, in which a surgeon may request that the patient stay overnight for recovery and monitoring.

Suction-assisted, power-assisted and ultrasound-assisted methods all require that a small amount of fluid is injected into the targeted area prior to suctioning. The fluid is a mixture of saline and a local anesthetic. The fluid assists in loosening the fat cells and minimizing any pain and bleeding as the fat cells are suctioned out of the body.

These three methods of liposuction mentioned thus far are sometimes referred to as "wet liposuction" or "wet lipo." Because of newer, safer techniques that have been developed over the past decades, "dry liposuction" (removing fat without any fluid injected into the body) is rarely practiced today.

Laser-Assisted Liposuction

Laser-assisted liposuction, also known as SmartLipo, was introduced in 2007 and is the newest liposuction method. Similar to the other above-mentioned liposuction methods, laser-assisted liposuction also requires a small incision in the skin. Laser energy is delivered through the incision by a thin laser fiber and directed at the fat deposit to "zap" the fat.

The laser enters the fatty tissue and actually liquefies the fat cells. It is then suctioned out of the body. Although the laser-assisted liposuction tool, SmartLipo, is the first laser to be approved by the Food and Drug Administration (FDA) to be used for fat dissolution, the method is still relatively new. This method



continues to be conducted under clinical investigation and it may take further scientific studies to determine its safety and success rate.

Because the laser's energy is so powerful, it may unintentionally provide too much heat to the surrounding tissues-- possible side effects of laser-assisted liposuction include swelling, bruising, burns and numbness. As a plastic surgeon at the forefront of technology, but with his patient's safety of utmost concern, Dr. Ali is monitoring the results of studies involving laser-assisted liposuction to determine whether the benefits outweigh the risks.

Healing & Recovery

While liposuction requires only very small incisions, there will be fluid that drains out of the body after the procedure. For this reason, the incisions may be only partially closed, which allows the fluid to exit the body. The incisions heal very quickly, but it is essential that the liposuction patient change their dressings frequently to avoid infection. Patients are sometimes prescribed an antibiotic to further help ward off possible infection.

Even though liposuction is a common procedure, healing requires both patience and stability.

Upon arriving at home, there will be factors that require a patient to limit their movement in order to facilitate the healing process.

- The affected area will need to be elevated for a short period of time.
- A type of compression garment or support hose may be required to help control swelling and bruising. Patients may also be required to wear an elastic bandage for several days or weeks depending on the scope of the liposuction procedure.
- It is normal to experience short-term swelling or discomfort will be likely in the area(s) of liposuction treatment.

Although these factors may limit movement, it is recommended that lipo patients move as soon as possible after surgery, even if it is just a little bit at a time. This will decrease the risk of blood clots that can occur from long periods of being sedentary.

Many patients return to work and resume most of their normal activities within just a few days, depending on the degree of the procedure and which method was used. Strenuous activity is not recommended until the follow-up appointment, where the doctor will advise the patient on their safest time to return to an active routine.

Side Effects

Side effects are medically minor, but can be discomforting. Depending on which method of liposuction was performed, and an individual's ability to heal faster or slower than others, the following may occur as a result of a liposuction procedure:



- Bruising
- Swelling
- Limited Mobility
- Discomfort/Pain
- Scars
- Numbness
- Infection
- Bleeding

The body will go through a natural healing process, and the discomfort and the side effects will disappear.

Results of Liposuction

Although liposuction results may take a while to fully gauge, the area that was treated will have a new shape and contour that is permanent. Liposuction permanently removes fat cells, and unless the patient gains an excessive amount of weight, these fat cells will not grow back in the area.

<u>Liposuction results</u> become more and more evident over the course of several months, and the benefits of the procedure will always be apparent, assuming the patient returns to a well-balanced diet and active lifestyle.

As mentioned before, liposuction is not a solution for weight loss, and patients should not expect to lose a dramatic amount of weight.

Risks of Liposuction

Aside from the expected side effects associated with liposuction procedures, general risks of liposuction include infection, bleeding, blood clots, or an adverse reaction to anesthesia—risks that come along with any surgical procedure.

Specific risks may include loose skin, discoloration of skin, asymmetry and dimpling in the treated area, perforation wounds in surrounding tissue or organs, and unfavorable scars.

Risks are often dependent upon the health and risk factors of the patient, which is why it is critical that during the initial consultation the candidate for liposuction provides a complete disclosure about any drug allergies, medical history, medications, and pre-existing current medical conditions.

Selecting a qualified plastic surgeon will also limit the risks associated with liposuction. The American Society of Plastic Surgery offers a plastic surgeon referral service free of charge, where future patients can select the right doctor for them. This organization holds its members to exceptionally high standards to ensure that their training and experience completely qualifies them to engage in liposuction practices.



Selecting a Plastic Surgeon

Any doctor with an MD can perform cosmetic surgery and there are many physicians who claim expertise but are actually trained in another specialty (i.e. OB-GYN, pediatrics, etc.) These doctors claim that they are "cosmetic surgeons" but they lack the intense training and specific skills of a board-certified plastic surgeon.

Further, there are many physicians, and even surgeons in the world that have learned liposuction through short term continuing education courses offered through private practices that will certify any doctor, regardless of that doctor's medical expertise or experience.

For these reasons, it is crucial that you make sure you are receiving treatment from a board-certified, experienced plastic surgeon. When you elect to have liposuction you are putting your self-image into the hands of your doctor. Plastic surgery is a specialty that requires extensive medical knowledge, knowledge of and experience with the human physique, an artistic "eye" and the experience that comes from years of study and practice.

Board Certification. A qualified plastic surgeon will be board-certified *in plastic surgery*. Some surgeons are board-certified, but not in cosmetic or plastic surgery. Any surgeon who performs any cosmetic or plastic surgery should be board-certified by the American Board of Plastic Surgery® and/or The Royal College of Physicians and Surgeons of Canada®. These organizations hold their members to the highest standards, including:

- At least 6 years of training and experience in surgery with at least 3 years of plastic surgery experience
- They operate only in accredited medical facilities
- Adherence to a strict code of ethics
- Fulfillment of continuing education requirements including patient safety techniques
- Acting as your partner to work with you to achieve your goals

Hospital Affiliation. Plastic surgeons should be affiliated with a hospital. This is not only in the event of an emergency; it is also because in order to attain this affiliation the surgeon must have an extensive level of experience and training. Hospital affiliation is assurance the surgeon has been properly vetted by the medical establishment.

Expertise. Like all medical professions, plastic surgery is continuing to change and advance; new techniques and technologies are being continuously developed. The best plastic surgeons continue to undergo training and participate in seminars and symposiums in their area of specialty. Many contribute to their specialty's body of knowledge by presenting papers and findings at these events.

Experience. Leading plastic surgeons have completed internships and fellowships *in their area of specialty.* This is important to achieving the hands-on experience in their profession, as they are working



with highly experienced doctors at that point. Additionally, the plastic surgeon you select should have extensive experience *in the procedure you are considering*.

Trust. Patients should feel comfortable asking the plastic surgeon of their choice how long they have been in practice, how many liposuction procedures they have performed, and why the doctor became a plastic surgeon. Your surgeon will come to know intimate details of your body and self-image and you have every right to insure you feel comfortable and at ease with your doctor.

A Note from Dr. Ali

As a medical professional I will ask many questions to assure I have a full understanding of what you are looking to achieve. I also provide patients and future patients with critical, realistic information pertaining to the history, advancements and techniques available among the various liposuction procedures. Most importantly, I seek to provide you with a comprehensive understanding of your options, so that you can make a sound and educated decision when selecting your cosmetic surgeon.

If you are considering liposuction, I encourage you to call Amae Plastic Surgery Center for an initial consultation. During this initial visit we will discuss your specific goals for liposuction and I will help educate you on your options so that you can make the decision that is best for you.

This paper was published by Dr. M. Azhar Ali Amae Plastic Surgery Bloomfield Hills, MI Copyright © Amae Plastic Surgery. All rights reserved. www.drali.com