

LIPOSCULPTURE AND BODY CONTOURING PROCEDURES

"It was the best of times, it was the worst of times."

—Charles Dickens, *A Tale of Two Cities*

THE GOOD NEWS IS THAT in a recent nationwide survey, San Diego was determined to be the most fit city in America, but spreading out across the nation is a vast sea of unfit cities ending in Philadelphia, which was found to be the most unfit city. In Dickens' England, overweight people were thought to be financially successful and in good health. On the contrary, thin people were felt to represent the look of sickness and poverty.

Over the centuries, there has been a progressive downsizing of the ideal body image as depicted in art—big, ripe bellies were the norm in the 15th to 17th Centuries. Indeed, Victorian women referred to their fat as the "silken layer". By the 1920's, a thin, linear body had re-placed the more curvaceous one and perhaps was best personified by the model "Twiggy" in the 1960's. In short, a century or more ago "round and soft" was in, but now it is all about being "buff and svelte".

The projected ideal image has become increasingly difficult for the average person to achieve. Some manage to stay thin through rituals of dieting, exercise, surgery; and sad to say, even purging. Other less fortunate individuals descend into low self-esteem and depression. Consider that approximately 5 to 10 percent of



Sandro Boticelli, *La Primavera* (detail), c.1482.

all American girls and women are, at sometime in their lives, affected by eating disorders—anorexia and bulimia. These figures may come as no surprise when looking at our icons of beauty. The average model, dancer and actress weigh less than 95 percent of the female population. Men are not immune from eating disorders either. Approximately 10 percent of all eating disorder cases occur in men. The "six-pack" abdominal muscles are derigueur for male models in fitness magazines

and "love handles" are passé.

"I saw the best minds of my generation destroyed by madness, starving..."

—Allen Ginsberg, *Howl*

Americans are becoming increasingly overfed and under-exercised, and obesity has reached epidemic proportions. The cause of excess weight can be multifactorial including genetics, hormones, inadequate exercise and poor dietary habits, as well as low self-esteem. According to the CDC, over 50 percent of Americans are now overweight and approximately 20 percent are obese; and unfortunately, this trend is on the rise. Of note, females are designed to have at least 5 percent more body fat than males of equal fitness.

Unlike many poverty-stricken nations of the world, starvation is rare in America. Last year Americans consumed over 6.5 billion pounds of candy and consumed over 5 billion burgers. An estimated 1 of 5 Americans snack all day long. Pizza loaded with cheese is the favorite form of take-out food. It seems as though we have fast food restaurants on every street corner, sometimes even two or three. The typical "super meal", may contain over 1800 calories and 84 grams of fat. The dietary habits of Americans prompted one prominent plastic surgeon recently to quip, "I cannot suction the fat as fast as

Americans are eating it”.

Obesity-related diseases such as cardiovascular disease, high blood pressure, adult-onset diabetes mellitus, degenerative arthritis and some cancers are estimated to cost in excess of 100 billion dollars in medical expenses and lost work productivity every year.

The obesity issue is further complicated by the fact that as many as 25 percent of Americans do not exercise regularly. For many, an attractive physical appearance has become the primary goal and achieving or maintaining good health has become secondary. We have become a nation of “couch potatoes”, watching sports events rather than participating in them, as well as surfing the net and playing video games by day and by night! Even more alarming, over 6 million kids in America are severely overweight and the incidence of obesity is on the rise. These kids have been dubbed “Generation XXL”.

In short, we are living in a socio-cultural environment characterized by mechanization, sedentary life style, and a ready access to abundant food, much of which is of poor nutritional value. Many Americans choose the “magic bullet” method of weight loss rather than pursuing permanent life style changes. For example, many overweight people turn to commercial weight loss programs. Even a decade ago, over 33 billion dollars was expended on weight loss products and services. Many of these dieters are known to actually gain all of their weight, if not gain even more than their baseline weight at the conclusion of the diet program. Others turn to diet pills—18 million prescriptions were written for the drug fen-phen in 1996 with well-known, negative side-effects. Researchers have even produced “fake fat” that tastes ever so good and is not absorbed into our bodies; however, the side-effects are far from pleasant.

With regard to exercise, overzealous workouts are neither recommended nor required to achieve

optimal health effects. Many fitness experts believe optimal health can be maintained by participating in vigorous exercise, for example biking for 20 minutes 3 times per week, or moderate exercise, such as brisk walking, for 30 minutes 5 times per week and engaging in some form of resistance exercises, such as lifting weights 2 times per week.

The face of Helen of Troy is said to have launched a thousand ships, but that is nothing compared to the stir created by the lovely body of the “Girl from Ipenema”. Unlike in America, the Brazilians have, in general, a much better diet, frequently incorporating fresh fruits and vegetables, and seafood eaten in smaller quantities. Their main meal is consumed at mid-day with a lighter meal served in the evening. Brazilians are less sedentary and less likely to sacrifice their physiques for jobs or surfing the net. They are much more likely to be dancing the night away!

“We should consider every day lost in which we have not danced at least once.”—Nietzsche

There is hope for those who, due to hereditary reasons; physical changes such as aging, pregnancy or major weight loss; and for those people who do not observe good dietary and exercise habits and are unable to lose their unwanted “pinchable inches”. The answer can be body contouring surgery if the prospective patient is highly self-motivated, realistic in expectations, emotionally healthy, enjoys relatively good physical health, and is willing to alter unhealthy life style habits to enhance and prolong the results of their surgery. It is unrealistic for everyone to look like the “Girl from Ipenema” or achieve the perfect physical proportions of “The David”.

Americans not only want to look eternally young, but also many are highly desirous of a positive body image. According to a plastic surgery survey in 2000, approximately 376,000 cases of liposuction; 300,000 cases of breast augmentation and reduction procedures;

96,000 cases of abdominoplasty, thigh lifts, arm lifts and lower body lifts were performed. The number of bariatric (obesity) surgical procedures has steadily increased to over 40,000 cases in 2000.

Ideally, a patient seeking a body contouring procedure should be near ideal body weight, but this criteria is no longer so stringent as surgeons and anesthesiologists have become better trained and armed with newer surgical techniques with better anesthetic agents and equipment to ensure the safety of their patients. Also, it has become clear from an emotional standpoint that many patients, in reality, are unable to achieve the physiques that they desire on their own; but frequently through surgery they can dramatically improve their body image, which can have far-reaching and lifelong positive effects both physically and emotionally. No longer do patients have to accept the undesirable effects on their body resulting from aging, pregnancy; and excess weight loss which can have an adverse effect on their self-esteem. However, it should be made clear that surgery is not a substitute for good dietary and exercise habits, but rather is an adjunct.

Liposculpture (also known as liposuction,) has become the most requested elective cosmetic surgical procedure in America. The removal of fat tissue for body contouring purposes dates back to the early 1920’s, when a French surgeon attempted to sculpt a ballerina’s knees and calves with a curette, a sharp surgical instrument. The results were not acceptable and the procedure was abandoned. In the mid 70s, Dr. Illouz, working in Paris, developed a technique to remove localized fat deposits by blunt cannula (thin, hollow tubes approximately the diameter of a pencil) in conjunction with a suction apparatus. This technique was introduced to the United States in the early 1980’s and, with some modifications, has become the standard method of liposculpture today.

In more recent years, power-assisted liposculpture (PAL) has become a popular method. The hand piece is powered

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by compressed gas or electricity and provides a more precise, efficient way of sculpting and removing unwanted body fat deposits. Moreover, this method is less fatiguing for the surgeon which is of benefit when performing large volume liposuction or multiple areas of liposuction.

Tumescent liposuction was introduced by Dr. Klein in 1990. With this technique, a large volume of fluid containing both local anesthesia and adrenaline is injected preoperatively into the intended areas of body fat to be suctioned. Having an anesthesiologist present is particularly important for large volume liposuction and/or multiple areas of liposuction performed at the same time to ensure optimal safety of the patient.

Those patients who are considered appropriate candidates for liposculpture have increased dramatically since the first introduction of this technique into the United States in the early 1980s. Surgical candidates have now been expanded, to include older patients, overweight and even obese patients. However, it is important for these types of patients to understand they will not achieve as desirable a result as younger, leaner patients with good, elastic skin tone. Typical volumes of fat removed by liposculpture in the early 1980's was limited to approximately 1.5 to 2 liters. This volume has steadily increased to approximately 5 liters which can be performed safely on an outpatient basis in an accredited surgical facility.

Often, liposculpture alone is not the solution for patients seeking an improved body image. Frequently, in addition to unwanted fat, the overlying skin can be redundant, lax or heavily dimpled. An example would be a person who has previously undergone obesity surgery with resulting massive weight loss and marked excess of skin of such areas as the arms, abdomen and thighs.

These types of patients generally require a direct surgical excision of excess tissue, and perhaps repair of underlying muscle damage. Liposuction may be used as an adjunctive procedure to further enhance the overall final result.

In recent years, there has been a trend toward performing "large volume liposuction" which removes greater than 5 liters of fat (approximately 7 pounds of fat); and in fact, up to 20 liters of fat (approximately 30 pounds) has been removed successfully in a hospital setting with well-trained and experienced plastic surgeons and anesthesiologists. In general, large volume liposuction is not indicated for the primary treatment of markedly obese patients, but rather as an adjunct after bariatric (obesity) surgery, or for those patients who are not considered good candidates for obesity surgery. Earlier this year, a multi-center study of obese patients by plastic surgeons around the country found that large volume liposuction led to decreased overall weight, body fat mass, blood pressure, and insulin levels without obvious detrimental effects to the patient over a four month period. Should these medical results be maintained over time, this new indication for large volume liposuction could well prove to be a useful tool in reducing the rate of chronic medical illnesses associated with obesity, such as cardiovascular disease, diabetes and high blood pressure.

Interest in body contouring procedures developed at the turn of the 20th Century, when Dr. Kelley reported on the first tummy-tuck in 1899; and shortly thereafter, reports of thigh lift procedures appeared as well. Brachioplasty (arm lift) was described in the 1920's. By the 1950's, Dr. Pitanguy of Brazil and his fellow Latin American surgeons developed many cosmetic improvements in body contour procedures, particularly of the breast and abdomen. The trend continues with an emphasis on strategically placed shorter scars, particularly within ever-shrinking boundaries of clothing, for example the French bikini. Surgeons

have also strived to achieve ever more natural and anatomic results. For example, a woman who has undergone prior pregnancies with damage primarily limited to the lower abdomen with mild to moderate excess of skin, underlying muscle damage and stretch marks can now be effectively offered a mini tummy-tuck rather than the more traditional complete tummy-tuck with longer scars and change of belly-button contour. Similarly, a patient complaining of flabby upper arms can now often be treated with more limited scars placed in the armpit rather than extending down the arm to the elbow, with or without adjunctive liposuction.

In summary, it is important to remember that these elective surgical procedures are not meant to be a substitute for a proactive life style including a positive emotional state and good exercise and nutritional habits. In making your resolutions for the New Year, it would be good to bear in mind that the goal is not to become an ideal "perfect 10", but rather strive to be "your personal best-every day in every way"-a much safer bet in the pursuit of inner peace and happiness.

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