

Part 4:
Body Reshaping

BODY RESHAPING

THE FASHION HISTORY OF BODY SHAPE

Throughout human history (and probably pre-history as well), the ‘ideal’ body shape for men and women has been subject to the whims of fashion. The idea of what is beautiful will continue to change as the years roll by.

Clothing can alter the body’s appearance by boosting it, constricting it, lengthening or shortening it (as with high-heeled shoes), changing the apparent proportions, or creating an illusion by the skillful use of color and design.

Judging by statues that were created by the Greeks and Romans in ancient times, the ideal young man was lightly muscled, with low body fat. The statues show no evidence of the bulging veins of striations or veins that would appear if they were body builders. They look like men who keep fit by way of normal exercise. Michelangelo’s statue of David too, crafted during the Renaissance, shows a fit young man, well-muscled and quite lean.

Paintings created during the Renaissance depict voluptuous women. These artists’ models were fêted for their full, curvaceous figures. By the standards of 21st century western societies, they would be considered overweight.

Henry VIII, in the 16th century, wore corsets beneath his clothes to encompass his corpulent body—as did other men of the period. Men also favored codpieces; padded, oversized and reinforced pouches worn at the crotch, to accentuate their manly genital area. Henry showed off his shapely legs, of which he was proud, by wearing tight-fitting hose, often in garish colors.

Panniers or side hoops were undergarments worn by upper class European women during the 17th and 18th centuries. They served to extend the width of the skirts at the sides, while

leaving the front and back comparatively flat. The idea was to provide a panel of fabric on which sumptuous embellishments could be displayed; it also made women's hips look inordinately wide and their waists look relatively small.

During the Victorian era the ideal female had an extremely narrow waist. To achieve this look, women wore corsets to pull in their bodies at the waistline. Sometimes these undergarments were laced so tightly that the wearers could hardly breathe. There are records of ribcages breaking under the strain—even of death caused by broken ribs puncturing internal organs.

At the same time, the shape and prominence of the buttocks was enhanced by the attachment of bustles and layered petticoats.

The 1920s were years in which women tried to hide their curves. Some would even bind their chests with lengths of fabric to make themselves look boyish or androgynous. They swapped waist-cinching corsets for webbed elastic girdles, which made the abdomen appear flat. The straight-up-and-down 'flapper' look was in huge contrast to the bosomy, 'bustley', extravagantly curved female figure of the Victorian era.

During the 1930s and 1940s shoulder-pads were all the rage in women's and men's costume, giving the illusion of broad shoulders. Women were still wearing 'foundation garments' at this time, to pinch in their waists. Padded bras were also introduced and as the 1950s advanced, women's skirts flared wider. By the middle of the 20th century, the hourglass figure was back.

What about men? If you watch old movies about Superman, Batman and Tarzan, where the physiques of the heroes were revealed by tight-fitting or sparse clothing, you will notice a distinct difference between them and the screen heroes of the 21st century. While all of the actors who played these classic roles

are tall and broad-shouldered, their bodies are what might now be deemed 'soft and flabby'.

Up to the 1960s women could still alter the appearance of their body shape by using undergarments such as corsets and girdles. With the new revealing clothes, however, if they wanted to conform to the fashionable ideal, they had to change their actual bodies.

Emulating the famous, stick-thin models of the 1960s such as Twiggy, many women's lives became dominated by the quest for weight loss. Hippie girls, despite their more casual, flowing garments, were affected by the drive to be slim, no less than mini-skirted Twiggy-copiers.

The quest for feminine thinness now had a firm grip on western society. It continued throughout the 1970s, the big-haired, broad-shouldered, aerobics-obsessed 1980s and the grungy, minimalist 1990s.

In fact, it was in the mid-1990s that the term 'heroin chic' was coined, to describe a waif-like, emaciated look characterized by pale skin and dark circles underneath the eyes. The unhealthy appearance of a drug addict had become a sought-after look.

As we travel further into the 21st century, western society still expects women to aspire to an impossibly thin body shape.

Meanwhile, practically every study of male body shape and attractiveness confirms that the masculine, V-shaped, athletic physique is most appealing. Across cultures, the ideal man's body shape appears to be wide-shouldered, long-torsoed, long-legged, tall, slim-waisted, slim-hipped, muscular and youthful, with shapely buttocks.

COLLAGEN AND ELASTIN

When discussing sagging skin on the body, it is important to know something about the roles played by collagen and elastin. The following information is quoted from the companion volume, *Beauty: The Ultimate Cosmetic Makeover Guide. Book 1: Face and Skin*.

‘Collagen and elastin are two biological substances that occur naturally in our skin. Together they are responsible for the skin’s strength, firmness, and shape.

Collagen

“Collagen” is the term for a group of proteins that mostly occur in our connective or ‘fibrous’ tissues. They are the most common proteins in the human body, comprising around 30% of total protein content.

‘Connective or ‘fibrous’ tissues support and/or connect other forms of tissues or body organs. Their role is to strengthen the other tissues and support their shape. Some examples of connective tissues include cartilage, fat and tendons. Collagen is abundant in our skin, but is also part of our ligaments, blood vessels, bones, and eyes.

Elastin

‘Like collagen, elastin is a protein that is located in connective tissues. It is, however, a different type of protein. Elastin is elastic; that is, it enables the body’s tissues to ‘snap back’ to their original shape after they have been contracted or stretched. An example of skin stretching occurs when we smile, or make any other facial expression. Elastin can be compared to a rubber band.

‘Our artery walls, lungs, intestines and skin all contain elastin. All these tissues need to be able to expand and contract to keep us

healthy. When young skin containing abundant elastin is pinched or pulled, it resumes its normal shape when released. Elastin is responsible for this.

The Collagen-Elastin Combination

‘Collagen is composed of very strong fibers with exceptional tensile strength. These fibers provide the foundation to anchor the skin’s outer layer. Elastin, despite being essential for skin function, is not as abundant in the skin as collagen. It forms an elastic network between the collagen fibers. It could be said that collagen is for skin structure while elastin is for skin “bounce”.

‘These two proteins are important in skin care because their actions combine to give skin its shape and firmness. Collagen, the basic supporting structure, provides density, compactness and volume, while elastin lets stretched skin return to the shape collagen gives it.

Collagen and Elastin Deficiency

‘The process of aging depletes the skin of these two important proteins. In young skin, collagen and elastin are abundant. Skin looks smooth and taut. As years go by, the body’s production of collagen and elastin decreases. Sun damage, pollution and other factors also contribute to the breaking down of the skin’s connective fibers. The skin becomes thinner and even more vulnerable to sun damage and other environmental aggravations.

‘When skin is deficient in collagen and elastin it sags and wrinkles. The elastin in aging skin begins to lose its ability to snap back, just as a rubber band that is continually stretched will, over time, lose its resilience. When this happens, our skin sags. Usually we notice this most around the eyes, jaw line, and neck.’

COSMETIC BODY RESHAPING METHODS

Body reshaping, also known as ‘bodysculpting or ‘bodysculpt therapy’, involves changing muscle density, gaining, losing, moving or removing fat, surgically altering body parts or adding implants to achieve a desired body shape.

Reshaping the body (and face) can be done in numerous ways. The most natural way is to exercise and eat well. Weight-lifting exercises can increase muscle mass, adding definition to the body and limbs, and giving support to sagging skin. Eating well to lose fat can get rid of unsightly body bulges and double chins.



Surgical therapies for body reshaping include:

- Arm lift (brachioplasty)
- Breast augmentation (augmentation mammoplasty)
- Breast lift (mastopexy)
- Brow lift (forehead lift)
- Buttock implant
- Buttock lift
- Cellulite subcision surgery
- Fat transfer
- Knee lift
- Liposuction
- Lower body lift
- Skin tightening surgery
- Thigh lift
- Tummy tuck (abdominoplasty)

**Minimally invasive therapies for body reshaping include:**

- Cellulaze®
- Dermal fillers
- Fat freezing
- Laser liposuction
- Laser skin tightening
- Lipodissolve
- Liposuction
- Mesotherapy
- Microcurrent skin tightening
- Vacuum suction

**Non-surgical therapies for body reshaping include:**

- Acoustic wave therapy
- Body-shaping undergarments
- Diet and exercise
- Endermologie®
- Fat freezing
- Hypoxi®
- Laser cellulite treatments
- Microcurrent therapy
- Radiofrequency fat disruption
- Ultrasound therapy



FRUGAL METHODS OF BODY RESHAPING

- Lose fat by eating, in moderation, a wide range of nutritious, unprocessed foods.
- Exercise regularly, to build muscle.
- Wear body-shaping foundation garments or flattering clothes.
- Accept your appearance; consulting a counselor or psychologist may help you conquer your dissatisfaction with your looks, and you might end up being happy with your own, unique beauty.



SURGICAL BODY RESHAPING: COSMETIC SURGERY

Cosmetic surgery is an invasive procedure that can be performed on all areas of the head, neck and body.

For information on cosmetic surgery for the face, see the other book in this series – *Beauty: The Ultimate Cosmetic Makeover Guide. Book 1: Face and Skin.*

Body reshaping/contouring is a type of cosmetic surgery whose purpose is to enhance the patient's appearance. It involves the use of a scalpel to cut away extra fat and sagging skin, thus making the body appear slimmer and the skin appear tighter, or the insertion of implants to 'bulk out' certain body areas.

The result is a body with fewer bulges and smoother contours. People sometimes opt for this procedure after they have lost a large amount of weight and their skin has not been able to fully shrink back into place, leaving them with a 'baggy' look. Areas that are often affected by loose, sagging skin include the upper arms, breasts, abdomen, buttocks, groin and thighs.

Usually, patients undergoing body contouring surgery will be placed under a general anesthetic. Surgeons will often perform body contouring in stages. A full 'body overhaul' may take months, or even years, to complete.

It is important to remember the following points if you are considering body contouring surgery:

* Body contouring surgery is not intended to simply remove excess fat. For removal of excess fat pockets, liposuction would be a more appropriate option. If your skin has good elasticity (stretchiness) it will bounce back to tighten against your remodeled body contours after liposuction. Skin elasticity is more

common in younger people. If your skin's elasticity is poor, your doctor might recommend a combination of liposuction and body contouring techniques; ie the surgical removal of the sagging skin left behind after liposuction.

* Before you have any body contouring surgery, your weight should be stable. If you lose weight after surgery, you may end up with loose pockets of skin. On the other hand if you gain weight, your surgically tightened skin will be forced to stretch too far, creating stretch marks and expanding your surgical scars.

* During the body contouring procedure, your surgeon will have to make numerous cuts. Expect some pretty extensive scarring. The surgeon will try to place incisions within natural skin folds and in places where your clothes will hide the scars. Concealing scars is not always possible, however, and some may be visible.

* Stop smoking. Smokers are always at increased risk of surgical complications.

* Even if you are a non-smoker, there can be complications following any form of surgery. Your surgeon will inform you of any risks.

Cosmetic surgery procedures for body reshaping include:

- Arm lift (brachioplasty)
- Breast augmentation (augmentation mammoplasty)
- Breast lift (mastopexy)
- Buttock implant

- Buttock lift
- Cellulite subcision surgery
- Fat transfer
- Knee lift
- Liposuction
- Lower body lift
- Skin tightening surgery
- Thigh lift
- Tummy tuck (abdominoplasty)
- Fat transfer/grafting

When people undergo many or all of these surgeries, it is called a 'body lift'.

SURGICAL BODY RESHAPING: ARM LIFT

Arm lifting surgery is called 'brachioplasty'.

As we age, the skin of the upper arms loses elasticity and becomes more likely to sag. Sagging of the skin on the upper arms can also occur if we lose a lot of weight.

Arm lifting surgery reshapes the underside of the upper arm, so that the arms look slimmer and more toned. The surgeon makes an incision from the armpit down to the elbow, then inserts a thin tube called a cannula into the layers of fat. The excess fat is then vacuumed out, using the process known as liposuction.

The surgeon uses stitches to tighten the muscles underlying the fat, thereby defining the shape of the upper arm. Some of the skin is cut away, then the surgeon closes the incision with more stitches.

The procedure leaves a scar running down the inside of the upper arms. This scar will remain forever, although it may fade significantly as time goes by.

Patients undergoing arm lifts are given a general anesthetic. The procedure can take up to three hours.

All surgery carries some degree of risk. Ask your surgeon about the risks and potential complications of brachioplasty.

Arm lifts do not guarantee slim, toned arms for the rest of your life. If you later gain, and then lose a significant amount of weight, your stretched skin will sag again.

SURGICAL BODY RESHAPING: BACK LIFT

Back lift surgery is sometimes called a 'bra lift'.

It is used for reshaping the bodies of patients with rolls of fat and sagging skin in the middle, upper and lower back.

In this procedure the surgeon cuts off the excess skin and removes the fat from the upper part of the back, extending into the armpits. This surgery can also be used to pare away the excess skin that extends around the sides of the body if the patient wishes. The surgeon makes an incision into the part of the back which, in women, is usually hidden by a bra, so that the scar will be less visible.

A back lift not only improves the contours of the upper back; it also helps to re-contour the skin on the lower back because there is less fat and skin pressing down on the lower area.

SURGICAL BODY RESHAPING: BREAST AUGMENTATION

BREAST AUGMENTATION - IMPLANTS

‘Breast augmentation’ is also known as ‘augmentation mammoplasty’. These terms refer to the surgical procedure of making the breasts larger (or changing their shape) by means of breast-implants or fat-transfers/grafting.

A breast implant is a prosthesis that consists of a flexible sac or shell made of solid silicone. This sac is filled with a gel-like or fluid material, usually silicone or saline (salt water).

Silicone-filled Implants

Up till 1994 silicone-filled breast implants contained liquid silicone. The major drawback of this was that sometimes the sacs leaked, allowing silicone to enter the body and create significant health problems. Those implants are no longer manufactured. Instead, silicone-filled implants now contain a cohesive gel that does not leak into the surrounding breast tissue if the sac develops a puncture. The newer sacs are also less likely to rupture. Because silicone gel implants cannot leak, they are the most popular with both surgeons and patients. Also, silicone gel feels and looks more natural and ripples less than saline.

Disadvantages of silicone-filled implants include the potential for ‘capsular contracture’ over time. Capsular contracture happens when the body’s immune system reacts to foreign materials. It involves the formation of capsules of tightly-woven collagen fibers, as if the immune system is ‘cording off’ the foreign object from the rest of the body. Over the course of a lifetime, silicone implants may begin to look less natural as a ‘capsule’ of

hard flesh forms around them. The collagen-fiber capsule tightens and squeezes the breast implant. This can be very painful, and can distort the shape of the breast.

Saline implants

The surgical incision is smaller with saline-filled implants and larger with those filled with silicone gel. Silicone implants arrive pre-filled, at a pre-set size, and are not adjustable in the operating room. Saline implants on the other hand, are more adjustable, which means that the surgeon can alter the size during surgery; for example, to compensate for any asymmetry in the breasts. The development of hardened scars, over time, is much less common than in patients with silicone gel implants.

Polyurethane coated implants (PCIs)

Polyurethane coated implants or 'porous coated' implants are made of silicone gel coated with polyurethane. The idea is to reduce the chance of capsular contracture by provoking an inflammatory reaction in the body. Such a reaction hinders the formation of fibrous collagen capsules around the implant. The early polyurethane coated implants caused health issues. Contemporary PCIs do not cause those problems; however they are the most difficult implants for surgeons to place into position.

Over the months following the breast augmentation procedure, the coating of the PCIs dissolves in the body. It's true that this does result in a low rate of capsular contracture; however the drawback is that if the implants have to be removed or repositioned for any reason during the period of dissolving, it could be an extremely difficult task.

Shapes of Implants

The two main shapes for breast implants are round and tear-drop.

Round implants are dome-shaped and look like the breasts of a woman who is lying on her back. They keep this ‘perky’ shape even when the woman stands up—unlike real breasts, whose soft tissue is affected by gravity. These are the most popular implants.

Tear-drop shaped implants (called ‘anatomical implants’) more closely resemble the shape of a real breast.

Volume and Protrusion

Most women seeking breast augmentation prefer a natural appearance. ‘Protrusion’ refers to how far forward the breasts project, as opposed to how big they are. Surgeon can order implants for their patients whose protrusions range from low to very high. The ideal breast implant size and shape for any particular person depends on their overall body shape and their own perception of personal beauty.

BREAST AUGMENTATION—FAT TRANSFER

As an alternative to implants, the size of the breasts may be increased with fat transfer—also known as fat augmentation or fat grafting. ‘Autologous fat transfer’ refers to using the patient’s own fat, as opposed to tissue from a human tissue bank.

The procedure involves removing the patient’s fat tissue from another part of the body by liposuction and grafting it into the breasts. It is normal for fat to be present in the area of the breasts. Adding some extra fat can increase breast volume while looking and feeling natural.

Many patients ask their surgeons to remove the fat cells from problem areas such as the buttocks, stomach and thighs, which resolves two issues simultaneously.

The results of a fat transfer procedure may last for many years, or even for a lifetime. However, in some patients part of the grafted fat may be reabsorbed by the body, thus decreasing the size of the breasts. It is not possible to determine, before the procedure, whether this will happen or to what degree. The probability of fat reabsorption can be decreased if the surgeon uses modern techniques.

To quote from the companion volume, *Beauty: the Ultimate Cosmetic Makeover Guide. Book 1: Face and Skin*,

‘Transferred fat survives when it gains a blood supply in its new location. This gives it a source of oxygen and nutrients, which permits it to continue existing indefinitely. If the transferred fat does not receive a blood supply in the first few weeks after surgery, the body will slowly break it down and absorb it. Thus the cosmetic improvements will disappear.

‘Successful fat transfer surgery needs to be done with skill and precision, to make sure that the fat which is harvested is not damaged by the harvesting process, and that the fat is re-injected in a way that maximizes the potential for blood vessels to grow into it (neovascularization).

‘It is to be expected that even when neovascularization occurs, it may not affect all the transferred fat, some of which will naturally be absorbed by the body. The amount that remains varies between individual patients, but generally about half of the injected fat remains for longer than three months. After that time has elapsed, the remaining volume of fat may last for years.

‘If more volume enhancement is required then any harvested fat that has been stored can be used.

‘Because the amount of fat retained by the body varies, some people need two or three treatment sessions to achieve the effect they want.

SURGICAL BODY RESHAPING: BREAST LIFT

A surgical breast lift is called a ‘mastopexy’.

Many elements can contribute to sagging breasts. Aging, childbearing and weight fluctuations can cause the ligaments upholding youthful breasts to stretch and elongate, so that the breasts begin to droop. In medical terms, this is called ‘breast ptosis’, where ptosis means drooping or falling.

The goal of this type of surgery is to improve the shape of the breast by raising the nipple to a new position, removing loose breast tissue, and reshaping the breast to enhance its projection and its position on the chest.

Mastopexy differs from breast augmentation in that the purpose is to remove the excess loose skin. Often the surgeon will combine this with internal tissue shaping, using sutures, to help lift the breast from within. This may necessitate the removal of a small amount of breast tissue, but generally not enough to be noticeable.

To lift the breasts the surgeon cuts around the areola of the nipple and makes a vertical incision from the areola to the underside of the breast. Skin is cut away, creating a tightening ‘lift’ effect.

In a standard breast lift the surgeon does not actually remove the nipples. The incision that follows the circumference of the

areola is only made so that the tissue surrounding the nipple can be reshaped.

If sufficient breast tissue is present, the surgeon may reshape it with internal stitches, remove excess skin and produce a higher, firmer breast. If there is not much existing breast tissue, an implant may be inserted during the lift procedure.

The surgeon closes the incision, generally using dissolving stitches to help minimize scarring. The procedure can take up to three hours. It is performed in hospital, with the patient under general anesthetic. The patient remains in hospital overnight.

SURGICAL BODY RESHAPING: BUTTOCK SCULPTING

Surgical buttock enhancement involves either augmentation or recontouring of the gluteal region by one of three techniques:

- Liposuction (if the patient only wishes to reduce the size of their posterior). Learn more by visiting our section on liposuction, page 80.
- Liposuction and augmentation by micro fat grafting (if the patient wishes to reshape by reducing some areas and increasing others, without the use of implants). Drawbacks: the result of fat injection can be unpredictable in shape, and some of the fat may be reabsorbed by the body. Learn more by visiting our sections on liposuction, page 80 and body fat transfer (fat grafting), page 88.
- Buttock implants (if the patient wishes to increase buttock size and enhance shape).

BUTTOCK ('GLUTEAL') IMPLANTS

Implant surgery has become popular for men and women who consider that their buttocks are too flat, and who wish to have more muscular or shapely hindquarters.

The procedure can take place in a medical clinic, without the need for hospitalization. The patient lies on the operating table and receives a light general anesthetic. The surgeon makes an incision in each buttock and inserts the implant under the muscles.

There are major differences in how buttock augmentations are performed in countries around the world, and also in the types of implants available. These types include soft, cohesive gel implants, semisolid implants and the oval shaped implants designed by noted surgeon Dr. José de la Peña. Buttock implants can also be off-the-shelf implants or customized for a particular person.

BUTTOCK LIFT

Buttock lift surgery is designed to lift the buttocks without adding volume. The surgeon cuts away crescent-shaped sections of skin and fat from the top of the buttock and frequently from the sides as well. He or she then pulls the skin together and stitches it into place.

SURGICAL BODY RESHAPING: CALF AUGMENTATION

Men and women who are dissatisfied with the shape and size of their calves may seek calf implants. Calf augmentation is a surgical procedure that can:

- enhance the volume and shape of the calf muscles
- improve the proportions and shapeliness of thin or bowed lower legs
- correct asymmetry in calf muscles which may have been caused by an accident or genetic birth deformities.

The procedure is performed while the patient is lying flat on their stomach on an operating table and under anesthesia; either general, regional spinal or local.

The surgeon makes a small incision over the natural crease behind the knee. He or she introduces a long, blunt dissecting tool and uses it to create a pocket between the fascia (a layer of fibrous tissue) and the underlying muscle. He or she then inserts soft, solid silicone implants.

The incision is closed with dissolving sutures and after the surgeon has checked to make sure that the calves are both symmetrical, compression bandages are wrapped around the legs.

Calf implant surgery is a low-risk procedure; however as with any surgery there are potential risks and complications.

SURGICAL BODY RESHAPING: KNEE LIFT

Knee lifts are intended to reduce the baggy, wrinkly appearance of knees, which occurs due to the loss of elastic fibers, collagen, and muscle mass as we age. Knee lifts can be either surgical or non-surgical.

With surgical techniques, while the patient is under general anesthesia the surgeon cuts off excess sagging skin and may also remove fat, before closing the incision.

Liposuction is another surgical technique that can improve the appearance of baggy knees, especially if combined with skin excision. For non-surgical knee lift techniques, see “Non-Surgical Body Reshaping: knee lift” on page 101.

SURGICAL BODY RESHAPING: LOWER BODY LIFT

The lower body lift is also known as a ‘belt lipectomy’.

During this procedure the surgeon removes excess, sagging skin. He or she then pulls up the remaining skin and stitches it in a new position to raise, tighten, and smooth out the surface of the abdomen, hips, buttocks, and outer thighs.

A lower body lift does not remove cellulite, but the fact that the skin becomes tighter and smoother means that cellulite’s appearance is significantly reduced.

Disadvantages of lower body lift surgery include quite a lot of scarring, as well as the potential risks and complications entailed in any form of surgery.

SURGICAL BODY RESHAPING: THIGH LIFT

A thigh lift is a surgical procedure which involves removing skin and fat from the thighs to tighten the remaining skin and improve the contour of the legs.

This procedure generally takes two to three hours to perform. The patient is anesthetized, after which the surgeon makes the necessary incisions. These cuts may run all the way around the thigh, or only part of the way around the thigh in the groin crease, depending on how much of the thigh is to be lifted.

Next, the surgeon raises the skin and fat off of the underlying muscles. Excess skin and fat is cut away, before the remaining skin is re-draped across the muscles.

The incisions are closed using multiple layers of absorbable sutures which are positioned beneath the skin. A clean dressing is applied to the wounds and over this, a compression garment is worn. This compression garment helps support the legs during the healing process. It also aids in minimizing swelling and bruising.

SURGICAL BODY RESHAPING: TUMMY TUCK

A tummy tuck, medically known as an abdominoplasty, is used for patients who have loose or sagging skin on their abdomen after significant weight loss or pregnancy. While the patient is anesthetized, the surgeon cuts excess skin and fat away from the abdominal area and the sides of the abdomen. He or she also uses sutures to tighten the abdominal wall's muscles and fascia (a layer of fibrous connective tissue). After the area has healed, the abdomen will appear firmer and flatter.