

COMMON RECONSTRUCTIVE PROCEDURES

By Dr. David Hing



Panniculectomy (Abdominoplasty "Tummy Tuck")

Description of Procedure

The abdominal pannus is the loose fold of skin that hangs over the pubis following significant weight loss. It consists of skin and fat tissue. Stretching of the rectus muscles (the sit up or "six pack" muscles) to the side may contribute to the fullness in the lower abdomen. Panniculectomy is the term used for the surgical removal of the abdominal pannus. It uses an incision which passes from hip to hip across the pubis along its lower edge. The upper incision passes from each hip to the belly button area. The skin and fat between these surgical incisions is removed. The expanse of skin above the belly button is loosened from the underlying abdominal muscle. If the muscles can be tightened, they are pulled to the middle with sutures. Hernias, which can occur after bariatric surgery, can be repaired as well. The upper edge is pulled downward to tighten the abdomen. The belly button is brought through the skin.

The incisions are designed to be hidden in the groin and pubic creases and to be covered by clothes and sportswear. Multiple layers of sutures are used to close the wound and produce a narrow scar.

Compression garments may be used to control swelling. Drains, soft plastic sterile tubes, are used to remove serum fluid from under the wound. Left undrained, the serum accumulation could stretch out the skin closure and undo the tightening achieved by the panniculectomy.

Am I a Good Candidate for a Panniculectomy?

Patients who benefit from panniculectomy surgery have:

- Loose skin in their abdomen draping over the pubic area.
- Reached a stable point in their weight loss.
- Medical indications for panniculectomy such as skin irritation, infection, or itching and blistering in spite of medical management, or back pain caused by the excessive weight pulling from their abdomen onto the spine.
- Documentation from other physicians or specialists attesting to the medical problems and the inability of those physicians to control the problems using non-surgical treatments.

Each patient will vary in their anatomy and proportions of loose skin and fat from the next patient. The decision to perform panniculectomy will depend

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on the one on one examination with your surgeon and your priorities for body contouring.

Standard Procedure Techniques

All panniculectomy techniques remove the extra skin and fat in the lower abdominal area, while the patient is positioned on his back. Here, the extra skin is pulled downward and removed in order to remove excess tissue in a vertical or top-down direction.

In many cases, with massive weight loss, the rectus abdominis, or sit up muscles, have been pushed to either side by the previous internal weight gain. After weight loss, they may remain displaced to the side, allowing the internal organs to push outward in the area between the belly button and pubic area. These muscles can be sutured back together in the midline in most cases to strengthen the abdominal muscle wall and flatten the lower abdomen.

Additional Procedures to the Panniculectomy

Not all patients have only vertical skin excess. Some patients may have stretching of their abdomen both vertically and horizontally, that is, side to side. Pulling the extra skin and fat tightly from above downward may not correct certain degrees of horizontal looseness.

An additional removal of skin as a vertical wedge over the midline above the belly button may be necessary. It is sometimes referred to as a fleur-de-lis abdominoplasty. Again, an individual, one on one consultation with your plastic surgeon will determine whether you need this to give a better result. Liposuction may be useful in some patients, to thin areas lying separate from the panniculectomy surgical incisions. Done too close to the panniculectomy operative area, liposuction can compromise the circulation and healing near the panniculectomy. A thorough discussion following examination is essential to determining a comprehensive approach to your priorities and whether liposuction can improve your outcome and satisfaction.

Benefits/Advantages/Options

- Panniculectomy controls extra skin and fat as well as muscle laxity.
- Can be combined with breast or arm contouring procedures.
- Can be combined with liposuction in selected areas.

Other Considerations

The panniculectomy should be performed when the patient is as close to their goal body weight as possible. For example, if a patient has panniculectomy surgery and then loses weight, the tightened abdomen can loosen and show sagging.

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Liposuction may be used to thin the upper abdomen before the panniculectomy to prevent moving thick skin and fat from above the belly button to the pubic area. It is safest to do the liposuction as a separate operation and wait a period of months before following up with a panniculectomy. These situations require consultation and examination by your Board Certified Plastic Surgeon.

Risks/Complications/Patient Safety

- Seromas (collections of serum fluid below the wound) requires the use of drains.
- Delayed wound healing along the incision may occur with stretching across the wound edges.
- Numbness or loss of sensation along the incision.
- Slight asymmetries in spite of careful planning.
- Bleeding and bruising, rarely requiring blood transfusions.
- Blood clots to the lungs (pulmonary emboli) are rare. Calf compression stockings applied at the time of surgery have significantly reduced this problem.

Recovery Process

Surgical drains, sterile soft plastic tubes, are placed to remove the serum fluid which may accumulate under the skin wounds. You, the patient, will be taught how to measure the amount of output on a daily basis. The drains are removed in the office once the fluid output decreases to a low level. This typically occurs within one to three weeks after surgery.

Sutures in the closure of the panniculectomy may require removal. These are removed in the office about 2 weeks after surgery.

Compression garments are used to control swelling and to smooth and flatten the skin. They may be placed over the abdomen at the time of surgery, or later, at the surgeon's discretion.

Activity is determined by the progress of the healing. Tightening of the rectus muscles may prevent heavy lifting for six weeks. Movement is easier once the drains are removed.

Patients are admitted to the hospital overnight. A bladder catheter, placed during surgery, is usually removed the next day. Once the patient is comfortable on oral pain medications, he/she can be released to go home.

Frequently Asked Questions

Will it be painful? For the most part, pain is adequately controlled by oral pain medications. The patient may require pain medications by injection or intravenously the first day, but oral medications are enough to control discomfort after that.

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Will there be scarring? There will be a scar where there is an incision. Every effort will be made to produce as thin a scar as possible, but there will always be some evidence of the surgery. Pictures of such operations performed by your surgeon can give examples of the scars.

What are some short term side effects? Numbness or decreased sensation can occur in the lower abdomen below the belly button and above the pubis. Seromas may occur even after the drain removal. If they occur, they may require removal by aspiration using a needle and syringe. Swelling after surgery may continue for four to six weeks and require the use of a compression garment.

What type of anesthesia will be used? Most panniculectomy operations are done under a general anesthesia. After the patient is put to sleep with an intravenous sedative, a breathing tube is placed in the mouth. A combination of anesthetic gases and medications controls the patient's discomfort until the surgery is completed.

Lower Body Lift

Description of Procedure

The lower body lift surgical procedure tightens loose, sagging skin in the buttocks, posterior thigh, hips, outer thigh, and anterior thigh. It utilizes incisions which pass from the back around the hips to the front of the thighs. The loose skin, as well as underlying fat tissue, is removed from below the incision to allow suspension of the remaining tissues to stretch and smooth the lower body, especially the buttocks and thighs. The surgery is begun in the patients back and requires repositioning during the surgery to address the hips and outer thighs and front of the thighs. It can be combined with an abdominal skin tightening if needed. If a previous abdominoplasty has been performed or is not needed, the lower body lift can be extended to tighten the inner thighs.

The incisions are designed to be hidden by clothing and sportswear or to lie in normally occurring anatomic folds. Layered suture techniques are used to carefully close the wounds in order to maintain the lift, tightening and smoothing the remaining skin.

Swelling, which is commonly seen after body lift surgery, is controlled by compression garments and the use of drains, sterile collection tubes used to evacuate excess fluid. Weekly follow up visits help to achieve an optimal outcome by allowing adjustments based on the patients visible progress. Full healing of the circumferential incisions may take four weeks or even longer.

Am I a Good Candidate for Lower Body Lift Surgery?

Patients who benefit from lower body lift surgery have:

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- Loose skin in their buttocks and back of their thighs
- Loose skin in their hips and side of their thighs
- Loose skin in the front of their thighs
- Loose abdominal skin or in their inner thighs
- Relatively thin layers of fat below the skin of these areas
- Acceptance of the thin scars around the waist
- Patients who have had massive weight loss

Each patient's anatomy and proportions of loose skin vary from individual to individual. The decision to utilize lower body lifting techniques depends upon the goals of the patient and an examination by your surgeon. This will determine whether the lower body lift will achieve a satisfactory outcome for the patient.

Standard Procedure Techniques

All lower body lift techniques tighten the buttocks/back of the thighs and hips/outer thighs. Loose sagging skin below the incision is removed. The remaining skin in the buttock and thighs is pulled upwards, and the skin is repaired, suspending the tissues and tightening them. This requires positioning the patient on their tummy or side during the procedure. Wound closure is performed in multiple layers over drains, to control stretching and swelling.

Once the back and sides of the patient have been addressed, the front of the patient is treated with the patient positioned on his/her back. Two options are available. These are discussed with the patient preoperatively and are chosen based upon the patient's choice. One option is to combine the lower body lift with abdominal contouring (abdominoplasty). The other option is to combine lower body lift with an inner thigh lift, if the abdomen does not require contouring, or if the patient has had previous abdominoplasty.

These techniques utilize the removal of skin, or excision of skin, to tighten loose, sagging tissue. It can include the removal of the fat layer under the excised skin to lessen fullness and padding in the lower body.

Candidates for body lift surgery all have extra skin which must be removed by excision. This differs from liposuction, in that liposuction removes only fat through small quarter inch incisions, but no skin. However, liposuction may be done in conjunction with body lifting techniques to smooth and contour areas separate from the effects of the body lift excisions. Again, a thorough discussion and examination are essential to determining a comprehensive surgical plan.

Benefits/Advantages/Options

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- Multiple areas (buttocks, thighs, possibly abdomen) addressed in one single operation
- Tightening extends lower in the back ,side and front of thighs than other circumferential excisional procedures
- Can be combined with breast or arm contouring procedures
- Can be combined with liposuction in selected areas

Other Considerations

Since the operation achieves tightening of the lower body by excising loose tissue (skin and fat), the lower body lift should be performed when the patient is as close to their desired or ideal body weight as possible. If, for example, the patient has tightening of their lower body and then loses weight, the tightened skin will loosen and become saggy. Conversely, post operative weight gain will either stretch the skin which has been tightened or undo the improvements of the body lift.

Because the lower body is lifted and suspended to the skin closure, excessive heaviness in the thighs and buttocks at the time of surgery may prevent a long lasting effect. In such cases, further weight loss may be recommended before performing body lifting procedures. If this is not feasible, liposuction may be an option to thin the thighs and buttocks before attempting excisional body lifting.

Risks/Complications/Patient Safety

- Seromas (collections of fluid below the skin) may require the use of drains
- Delayed wound healing from small separations in the wound closure in areas of high tension and stretch
- Numbness in areas adjacent to the incision
- Slight asymmetries may occur in spite of efforts to balance skin and fat removal
- Bleeding may lead to bruising, but it is very rare to require transfusions
- Blood clots to the lung (pulmonary emboli) are rare. Sequential compression devices (SCD's) on the calves during surgery has significantly lessened the incidence in body contouring procedures
- Surgical operating time and duration may last six hours or more for the body lift. Measures are taken to warm the patient carefully during surgery. Medical conditions are addressed preoperatively to ensure the safety of the patient for such durations.

Recovery Process

Surgical drains are placed to remove fluid which accumulates within the incisions. The amount of fluid is measured by the patient on a daily basis. Once the output falls low enough arrangements are made for removal of the drain in an office outpatient setting. Drains typically remain in place two to three weeks, but may be left longer.

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Sutures in the wound closure may require removal. This typically occurs around two weeks after surgery, and this, too, is done in an office as an outpatient treatment.

Compression garments are placed on the patient to control swelling, to support the suspended tissues, and to smooth and flatten the skin. Placement can occur at the time of surgery, or later, at the surgeon's discretion.

Activity is determined by the progress of the healing of the incision. Patients are encouraged to walk the day after surgery. Once the drains are removed, movement is easier.

Patients are admitted to the hospital after surgery. They may stay a couple of days to learn care of their drains and feel comfortable in walking and moving. A bladder catheter, placed once the patient is asleep in surgery, is removed the next day. Once the patient is comfortable with oral pain medications, the patient is discharged. Resumption of normal activities can occur four to six weeks after surgery.

Frequently Asked Questions

Will it be painful? For the most part, pain is controlled by oral pain medications. The first day of surgery, the patient may require injections or intravenous pain medications, but pain pills satisfactorily relieve discomfort after that.

Will there be scarring? There will be a scar along the incision. It will be as thin as your surgeon can make it, using multiple layers of sutures to prevent spreading. However, there will always be some evidence of the surgical incision. Your surgeon may be able to show you pictures of the scar locations, as an example.

What are some typical short-term side effects? Numbness or decreased sensation can occur in the upper buttocks or thighs and in the lower abdomen (if the abdomen is included in the body lift surgery) Seromas, collections of fluid (serum) under the skin may occur even after drain removal. These may require removal by aspiration in the office using a syringe. Swelling may require the use of compression garments around the waist and thighs for four to six weeks after surgery.

What type of anesthesia will be used? Body lift surgery is typically performed under a general anesthesia. In this type of surgery, the patient is put to sleep with an intravenous sedative. After they are asleep, a breathing tube is placed in the patient's mouth to ensure that the airway is secure during the position changes necessary during the surgical body lift procedure.

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Arm Lift (Brachioplasty)

Description of Procedure

Weight loss in the arms will thin the fat layer below the skin and allow gravity to pull the skin downwards. This creates a vertical looseness on the underside, or triceps muscle side, of the upper arm. Brachioplasty (arm lift) involves removal of this skin from the inner surface of the arm in a long tapered spindle pattern. The incision closure falls on the inside of the arm in the groove between the biceps and triceps muscles. A drain is placed under the skin, entering near the armpit. Compression garments are utilized to smooth the skin and provide pressure around the area to lessen swelling. Surgery is usually done as an outpatient procedure (unless other procedures are done at the same time).

Am I a Good Candidate for an Arm Lift?

Patients who benefit from an arm lift have:

- Loose skin that hangs from their upper arms between the armpit and elbow.
- Have reached a plateau in their weight loss.
- Have a pinch thickness in the arms of about 1.5 cm or less.

Standard Procedure Techniques

All arm lifts involve removal of extra skin and fat in the upper arm. The distance that the removal extends beyond the elbow or into the armpit depends upon if looseness extends that far. There is no manipulation of the muscles in the upper arm; they are left undisturbed. Care must be taken to avoid injuring sensory nerves, which reside within the area of surgery. There should be no risk to the nerves which control muscle movement when the procedure is performed by an experienced surgeon. A general anesthetic is usually administered for this operation.

Additional Procedures To The Brachioplasty

Laxity in the skin of the arms after weight loss can extend down to the skin in the upper flanks and below the armpit. It can also extend forward along the outer side of the breast or chest. This allows the brachioplasty/arm lift operation to be combined with an upper body lift and/or breast contouring procedure.

Breast operations that can be combined with the brachioplasty operation include breast lift (or mastopexy), breast reduction, breast augmentation, or breast augmentation/mastopexy. The decision to combine such breast operations will be determined by the patient's weight loss. Since weight loss

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affects breast volume, such operations should be done when the patient is close or at their goal weight.

Benefits/Advantages/Options

- Brachioplasty takes away the "batwing" appearance of the upper arms.
- Arm lifts enable the patient to wear blouses and shirts that fit their trunk and arms.
- They can be combined with upper body, trunk, and/or breast procedures.

Other Considerations

The skin of the upper arm is trimmed in a way to fit tightly around the upper arm. The thinner the arm, the tighter the contouring of the upper arm will be. Surgery should be performed when maximum weight loss has been achieved. If the tissues in the upper arm are still thick after weight loss, it is possible to thin the tissues first with liposuction before removing the extra skin and fat.

Risks/Complications/Patient Safety

- Seromas (collections of serum fluid under the skin closure) can occur in spite of the use of drains.
- Delayed wound healing can occur with movement at the shoulder where the incision passes from the arm into the armpit.
- Numbness can occur in the upper forearm, since the sensory nerves to this area often travel within the zone of skin and fat that is removed.

Recovery Process

The surgical drains are usually removed within a week. Timing is based upon how quickly the measured volume of serum fluid decreases each day. Sutures are reinforced with Steri-Strip tapes. The sutures are removed at two weeks. Compression garments may be utilized for two to four weeks. Activity is gradually increased after two weeks. Patients are allowed to shower the first day after surgery.

Frequently Asked Questions

Will there be scarring?

Even though the wound edges are repaired with multiple layers of sutures to avoid scar widening, there can be spreading of the scar making it visible. Each patient heals differently, and scars may be less or more noticeable from one patient to another. Patients must be willing to accept the long incision scar in order to benefit from a brachioplasty. We will show patients photographic examples of the scars after surgery.

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What treatment is required if seromas develop, even after the drain is removed?

These collections of fluid can be removed by aspiration with a needle and syringe under local anesthetic block in the office. We apply compression to the area after aspiration. While more than one aspiration may be required, it is very unusual to need replacement of the drain.

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