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Intramuscular Gluteal Augmentation Technique

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Gluteal augmentation is gaining popularity as patients become more familiar with a procedure that has been around for more than 20 years. While the buttock can be augmented with autologous tissue, implant augmentation is the focus of this article. Gluteal implants can be placed in submuscular [1], intramuscular [2,3], subfascial [4], or subcutaneous [5] positions.

Although each implant position has advantages and disadvantages, I have a personal bias for the intramuscular approach. It provides the greatest amount of implant coverage, lends inferior support to prevent migration, and gives coverage should the wound dehiscence. This is because the intramuscular position allows padding of an implant by muscle tissue above and below as well as along the inferior edge. An added concern particular to surgeons in

the United States is that we are limited to solid elastomer implants, which are much firmer than those filled with silicone gel available elsewhere. The added muscle coverage available with the intramuscular technique pads the implant so it does not feel hard or palpable. This padding also softens the areas of transition between the implant edge and surrounding tissues. These advantages produce augmented buttocks that have a more natural feel and appearance.

The technique of intramuscular implant placement described below is a modification of what was taught to me by my mentor in gluteoplasty, Dr. Jorge Hidalgo. The modifications include adding liposuction to the flank, upper buttock, and inner and outer thighs (if needed), as well as occasionally combining fat transfer with the augmentation.

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Other modifications include lowering the extent of the inferior muscle dissection to 3 to 5 cm below the coccyx, using an expander to help create the pocket, using sizers for implant selection, and, finally, using drains. Specifics of the procedure follow.

Patient preparation

Any areas to undergo liposuction or fat transfers should be marked in the preoperative area with the patient in the standing position. Preoperative medicines include Decadron 10 mg IV (a corticosteroid) and Cleocin 600 mg IV (an antibiotic). Intermittent pneumatic compression stockings are placed and functioning before induction of anesthesia. The surgical procedure takes between 1.5 and 2 hours so a Foley catheter is not necessary.

Anesthesia and patient positioning

The procedure can be performed under general anesthesia or with an epidural or IV sedation. My preferred method is IV sedation. The patient is placed in the prone position with a pillow beneath the pelvis to “jackknife” the pelvis and aid in muscle visualization and dissection. The elbows are flexed with arms out to the sides at less than 80° (the beach position), and all pressure points are padded (see Fig. 1). The intermittent pneumatic compression stockings are rechecked before beginning.

If the procedure is to be done under general anesthesia, I recommend placing a draw sheet under the patient before anesthesia induction. Once the airway is secured and anesthesia in control of the airway, the draw sheet will aid in rotating the patient to the prone position as staff assist with arm positioning. The arms are secured and the pillow placed under the pelvis. Make sure all pressure points are padded, and recheck the pneumatic compression stockings.

Once the patient is properly positioned, the buttocks and back are prepped and draped. The gluteal area is prepped from the knees to the upper back and as far lateral as possible. Draping should leave the entire gluteal zone and lower back exposed. A Betadine-soaked gauze is placed over the anus and secured with 2-0 silk to prevent contamination (Fig. 2A). A sterile towel is then placed over the gauze to cover the anus and the inner gluteal zone (Fig. 2B). This towel is secured to the skin with 2-0 silk so as not to allow any space between the towel and the skin. Finally, all gloves and gowns are changed.

Markings and incision placement

The intraoperative markings are minimal: identify and mark the tip of the coccyx and the infragluteal

fold to serve as guides later for the drain exit points. The major markings revolve around incision placement.

Several incision approaches have been described: a single central midline incision [1], a bilateral infragluteal incision [5], a bilateral superior gluteal incision [5], and a central island flap with a single midline incision [4]. However, my personal favorite has become the bilateral parasacral incision. My original published series [6] was based on the single midline scar, but 30% of patients developed wound dehiscence. Although other authors had not reported a similarly high incidence rate, I was forced to seek alternate approaches. This led me to the bilateral parasacral incisions, which I later found were also described by Dr. González-Ulloa [5]. The parasacral incisions avoid the sacral midline with its poor circulation. To date, I have performed 18 cases with these parasacral incisions and only one dehiscence occurred; it was a result of design issues and patient selection. Thus, the incidence of wound dehiscence was lowered from 30% to 5%, and no dehiscences have occurred in the past 12 cases.

The bilateral parasacral incisions are designed as follows: with the patient in the prone position, the tip of the coccyx is palpated and marked, and a line is drawn straight down the sacral midline in the central intergluteal crease from the tip of the coccyx to 8 cm cephalad (Fig. 3A). The actual incision locations are marked 1 cm lateral to this midline so that the two incisions are 2 cm apart in the inferior and middle portions of the buttocks. If the 2 cm distance between incisions at the lower tip of the coccyx is not respected, central skin necrosis may occur.

As the incision line moves toward the upper buttock, it follows the upper gluteal curvature, as illustrated in Fig. 3B. This curvature typically begins at about 6 cm above the coccyx. This design produces two 8 cm incisions that parallel the midline from



Fig. 1. Patient positioning for gluteal augmentation and padding of pressure points. The pelvis is slightly elevated with a pillow to make muscle visualization and dissection easier.

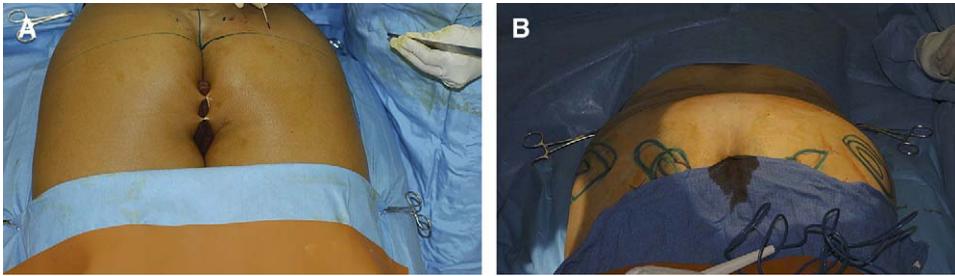


Fig. 2. (A) Betadine-soaked gauze is placed over the anus and secured with 2-0 silk to prevent contamination. (B) A sterile towel is placed over the gauze to cover the anus and the inner gluteal zone.

the tip of the coccyx and extend cephalad following the upper gluteal curvature. The inferior and middle portions of the incisions have a 2 cm separation; in the upper portion, the separation is 4 to 5 cm.

With this incision, the eventual scars are disguised within the gluteal cleft (**Fig. 4**). Although the upper portion of the incision may be visible in some patients, it is well hidden by a bikini. If the incision design ends too high on the buttocks and would therefore be very visible, the design can be modified so the incisions begin 0.5 to 1 cm lower than the coccyx. Because these parallel incisions are not made directly over the midsacral line, we are not strictly limited to the coccyx landmark, and the incision can be shifted lower to fit the patient's anatomy.

Skin flap dissection

The procedure begins with infiltration of the incision sites with 10 cc of 1% lidocaine with epinephrine 1:100,000. This tumescent fluid is injected into

the intramuscular and subcutaneous tissues, as well as into the subcutaneous tissues of the areas to receive liposuction. The best approach is to stand on the opposite side of the buttock to be augmented and make the incision down to the gluteal fascia. With hooked retractors, the tissues are placed under upward traction.

The beginning of this dissection is tricky since the gluteus maximus muscle fascia is reached relatively quickly and takes an upward, sloping turn. If not careful, you will penetrate the muscle and lose the tissue plane needed to hold the implant. With the aid of deeper retractors the dissection is continued, but the fascia on the muscle must be preserved. This is a key point in this technique because if the muscle fascia is not preserved, there will be insufficient tissue for achieving a good closure and covering the implant. The dissection may be done with electrocautery or, for a less heated dissection, with a gauze pad wrapped around the thumb, which is used to elevate the subcutaneous tissues digitally with an upward sweeping motion. The goal of the initial

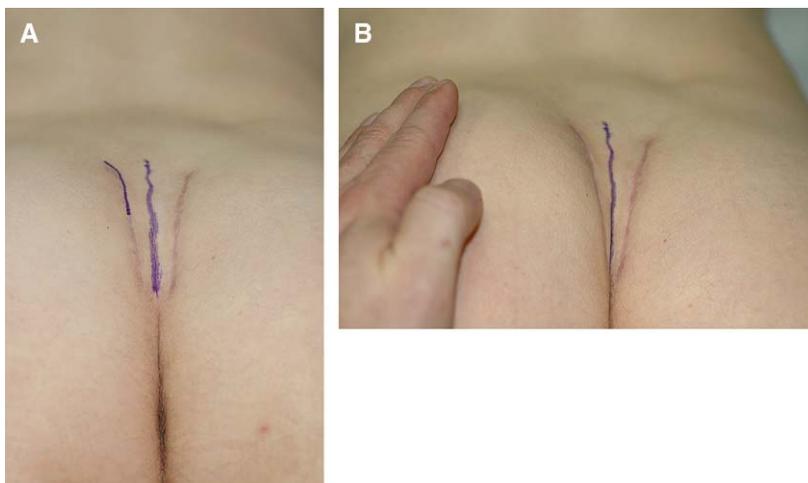


Fig. 3. (A) Location of the bilateral paraspinous incisions. (B) As the incision line approaches the upper buttock, it follows the upper gluteal curvature, which can be easily recognized by gently pushing the gluteus maximus muscle medially.



Fig. 4. (A, B, C) Preoperative views of a 41-year-old male seeking gluteal augmentation. (D, E, F) Four months after receiving large anatomic shaped implants placed through bilateral paraspinal incisions. The location of his incisions are visible on the PA and oblique views. They will continue to fade over time, but the patient is not bothered by them as they are.

subcutaneous dissection is to expose just enough of the muscle and fascia to allow implant placement. This usually means about 5 to 6 cm of subcutaneous dissection.

Muscle dissection

An understanding of gluteal anatomy is essential before the muscle dissection is begun. The major muscles in the buttock are the gluteus maximus, minimus, and medius and the piriformis. The maximus has transversely oriented fibers and is one of the largest muscles in the body; its superior half covers the medius, which has vertically oriented fibers. The plane between these two muscles is more distinct in its superior portion (at the level of the posterior superior iliac crest). However, as we move caudal the fibers integrate and become

indistinguishable. Since the dissection is performed at the gluteal midlevel, there will not be clearly identifiable planes, muscle groups, or layers.

The muscle dissection is a blunt intramuscular procedure with components of direct visualization. The goal is to maintain a 2 to 3 cm thickness of muscle to cover the implant. The gluteus maximus muscle has about a 4 to 6 cm thickness, so maintaining a 3 cm intramuscular dissection allows muscle to remain beneath the implant and cover the crucial nerves and vessels.

Using the midsacral level as the reference point, the fascia is opened for a length of about 5 cm and dissection follows the direction of the muscle fibers. The surgical instruments most helpful in gluteal augmentation are pictured in [Fig. 5](#).

The intramuscular dissection begins with a long hemostat that is spread perpendicular to the muscle



Fig. 5. Types of instruments needed for gluteal augmentation include (left to right) long Adson Browns, long hemostat, ring sponge forceps, Aiache gluteal dissector, urethral sound, 2 small wide retractors, and 2 long Deaver retractors.

for a depth of 1 cm. At this point, switch to a ring forceps and continue the perpendicular muscle spread for another 2 cm, for a total of 3 cm coverage. During the forceps dissection, the glistening fascial fibers that are present at different levels of the dissection are evident. If the depth of dissection is not 3 cm, the fascia should be incised and dissection continued until the 3 cm mark is reached. The forceps dissection creates only a small muscular opening that must now be enlarged. Use the cautery to open the muscle incision medially and laterally to its full fascial incision length. Once this depth is achieved, the Deaver retractors are introduced on both sides of the muscle and spread.

Up to this point, the procedure is relatively bloodless, but the dissection now becomes blunt and some blood loss is expected (about 50 cc). Remember that this is an intramuscular procedure so there is no equivalent to the areolar plane evident in breast augmentation. The ring forceps are next closed and used to bluntly push and create the implant pocket, which should have a consistent 3 cm thickness of muscle above it.

It is best to start the pocket dissection in the superior lateral direction. A key point in this portion of the dissection is to tilt the tip of the ring forceps downward to about 45° since the tendency will be to unconsciously tilt the forceps upward, which could pierce through the muscle. If this should happen, the best choice is to dissect deeper; the less desirable alternative is to convert this part of the implant pocket to a subcutaneous position. The dissection continues in a sweeping counterclockwise motion from the superior lateral to superior medial direction using a back and forth pushing motion of the ring forceps.

At this point the pocket is partially created. Under direct visualization and with the aid of retractors, the pocket is further defined with an Aiache serrated

gluteal muscle dissector. If this instrument is not available, use an index finger or a curved urethral sound to push the fibers into the pocket shape and size. Little dissection is done inferiorly. When this much of the pocket is created, a lap pad is placed in the wound to clear out any blood.

Tissue expander

To help define the pocket further, place a breast implant expander in the pocket and over-inflate it until it expands no further. The expander will stretch the muscle and help to indicate areas of the pocket that need further dissection. It will also help define the inferior dissection. In the past the inferior dissection was limited to an imaginary line that spanned from the tip of the coccyx to the greater trochanter of the femur. However, this limitation places the implant in a position that is too high and may look unnatural. As my familiarity with this procedure has grown, the inferior dissection has been refined to extend 3 to 5 cm below the coccyx. This places the implant in a more anatomic location with improved aesthetic contour.

To ensure safety, the inferior dissection is performed with the aid of the expander in place. Blunt finger dissection is used to push muscle fibers away from the expander in an inferior direction. Note that the majority of the inferior dissection is done with a finger, which helps maintain muscle thickness and avoids instrument injury to any structures. On occasion, some very dense and tough fibers that cannot be broken with finger manipulation will be encountered. In these cases, the expander should be removed and, under direct vision, these fibers freed using the Aiache dissector, the urethral sound, or even cautery.

Keep in mind that the sciatic nerve is deeper than the dissection. A great landmark to remember is the acetabulum of the femur, which is easily palpated and sometimes visible. Anatomically, when the acetabulum is palpated the sciatic nerve lies in a groove that is immediately lateral to this structure and well protected. Occasionally the inferior gluteal or superior gluteal arteries may be encountered, but these vessels rarely need to be cauterized or ligated. If required, it is not a problem because the gluteus maximus is a type III muscle with excellent blood supply.

Sizers to determine implant size

Once the surgeon is satisfied with the dissection, a sizer is inserted to determine the appropriate implant size that can be used. When the implant is in place, the muscle edges should be in close proximity with very little tension at closure (this is one of the key steps in the procedure). Regardless of

body build or size, every patient will exhibit different muscle thickness, tightness, and characteristics. It is difficult to predict whose tissues will be lax or tight. Therefore, it is often helpful to have a variety of implant sizes available in the operating room to help determine the largest implant size that a particular patient's muscle will accommodate with minimal tension.

Drains

Once the implant size has been determined, a Jackson Pratt drain is introduced in the pocket and brought out through separate stab incisions in the infragluteal fold. Use of drains has decreased the incidence of seroma in my patients. If a pain pump is to be used, it may be placed at this time, with the catheters brought out through the upper medial buttock.

Implant placement and closure

With the correct implant size selected, the implant pocket is irrigated with 10 cc of 1% lidocaine with epinephrine 1:100,000 mixed with 5 cc of Marcaine 0.5% plain. Next, all gloves are changed, the implant is soaked in antibiotic solution, and the incision is thoroughly scrubbed with a scrub brush using chlorhexidine (such as Hibiclens), followed by placing a new sterile towel over the buttock.

The implant is rolled into a cigar shape and introduced into the pocket. If the implant comes with a sterile sleeve, it can be used to introduce the implant and help prevent its contact with the skin. However, one must be prepared to struggle when using an insertion sleeve. If the muscle is tight, the surgeon may need to make about a 0.5 cm incision in the muscle at its insertion along the sacrum to create more space. However, try to avoid this scenario because this muscle incision makes closure more difficult.

Care is taken to leave a cuff of tissue that can be closed over the implant. Any irregularities in the pocket are corrected with a curved dissector. The drains are checked for any kinking to make sure they are in a good position. The muscle is closed with 2-0 Vicryl. The subcutaneous wound is closed in layers with a final running 3-0 Vicryl suture. The opposite buttock is then completed in a similar fashion, but before closing this second side, evaluate the symmetry of the two pockets and make any needed refinements.

Auxiliary procedures and wound dressing

If liposuction is to be done, it may be performed either before or after the gluteal augmentation. When needed, fat transfers are done as the last procedure.

Finally, the wounds are further reinforced with Dermabond to help seal and prevent later contamination. The anal pack is removed. An abdominal binder is placed around the gluteus for pressure and support. If liposuction was done, a liposuction garment is used instead. The patient is taken to recovery and, on discharge, instructed to lie in the back seat of the car on the way home to avoid putting pressure on the buttocks.

Augmentation results

Results of intramuscular gluteal augmentation are shown in **Figs. 6 through 10**. Most patients receive adjunctive liposuction to refine the gluteal contour, but liposuction should be performed only in areas that are distant from the implant pocket, such as the flanks and outer thighs. The patients seen in **Figs. 6 and 7** received round implants. Results with large anatomic implants are illustrated in **Figs. 4, 8, and 9**. The intramuscular technique may be used for primary gluteal augmentation or for revision of previous implantation (see **Fig. 10**).

Using the intramuscular tissue plane allows the implant to ride lower on the buttocks than when the submuscular position is used. This produces a point of maximum gluteal projection that is ideally located, on the same level as the mons pubis.

Postoperative care

Activity

Since most wound dehiscences occur between days 12 and 16, patients are instructed to minimize activities that cause wound pressure or friction. For 3 weeks they are asked to sleep on their stomach; when watching TV, reading, and so forth they are to lie on the stomach or stand. They are instructed not to sit, except for going to the bathroom. Any other sitting requires clearance from the surgeon. The patient is evaluated on postoperative days 3, 7, 14, and 21. More frequent follow-up visits are necessary if there are problems with wound healing. On day 21 (postoperative week 3) patients are cleared for sitting, including driving, and encouraged to start stretching exercises. If the wound healing is marginal, the patient is followed closely but not allowed to sit or drive for at least 2 more weeks until the wound appears stable. In the case of wound dehiscence, sitting is not allowed until granulation tissue has developed, usually within 2 to 3 weeks.

The patient may conservatively ambulate around the house but is asked to limit activities to avoid wound friction or trauma. When traveling for

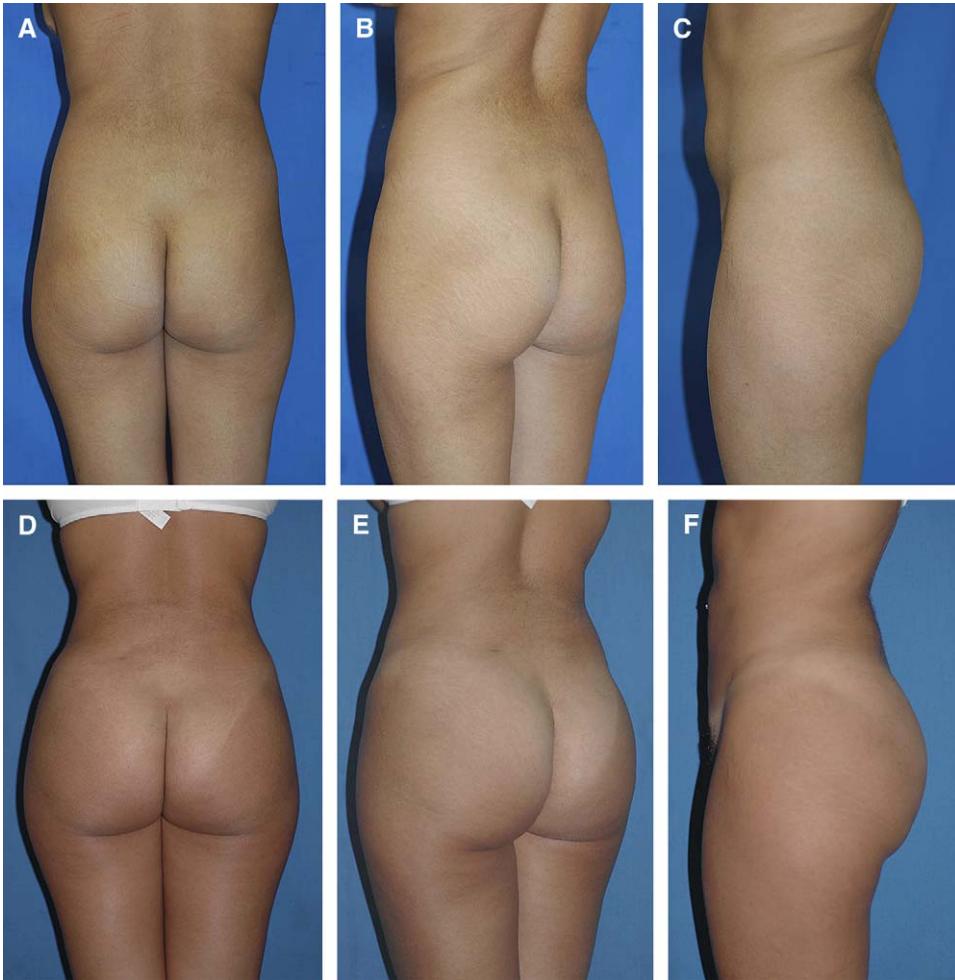


Fig. 6. (A, B, C) Preoperative views of a patient desiring gluteal augmentation. (D, E, F) Postoperative photos 3 years after receiving round silicone elastomer implants placed in the intramuscular position. She received 250 cc of transferred fat and had liposuction of the flanks and waist at the time of augmentation. Two years later, she received additional fat transfers to the buttocks.

follow-up office visits, patients are instructed to lay prone in the back seat of the car.

Returning to work usually takes 2 to 3 weeks, depending on the job. If a patient sits at work, she may not return for 3 weeks, when cleared for sitting.

Returning to a gym or exercise program depends on wound status. If all is well, the patient can resume exercise in 6 postoperative weeks. If the wound is compromised, it may take 2 to 3 months.

After 3 months patients are cleared for all types of activities (bungee cord jumping, motorcycle riding, and more routine tasks). In the beginning the implants will feel very firm, like sitting on rocks. It takes about 3 months for them to soften up, at which point patients report that their buttocks feel as though they are well toned through exercise.

Garments

If liposuction was performed, patients wear the traditional garments for 4 to 6 weeks. If no liposuction was done, an abdominal binder is used for 2 to 3 weeks to place pressure on the upper part of the buttock. This theoretically helps keep the buttock cheeks together and, hopefully, decreases wound tension.

Drains

While drains are in place, the patient is kept on antibiotics, such as cipro or clindamycin. The drains are removed when the output is less than 30 cc per day. They are usually not needed for more than a week.

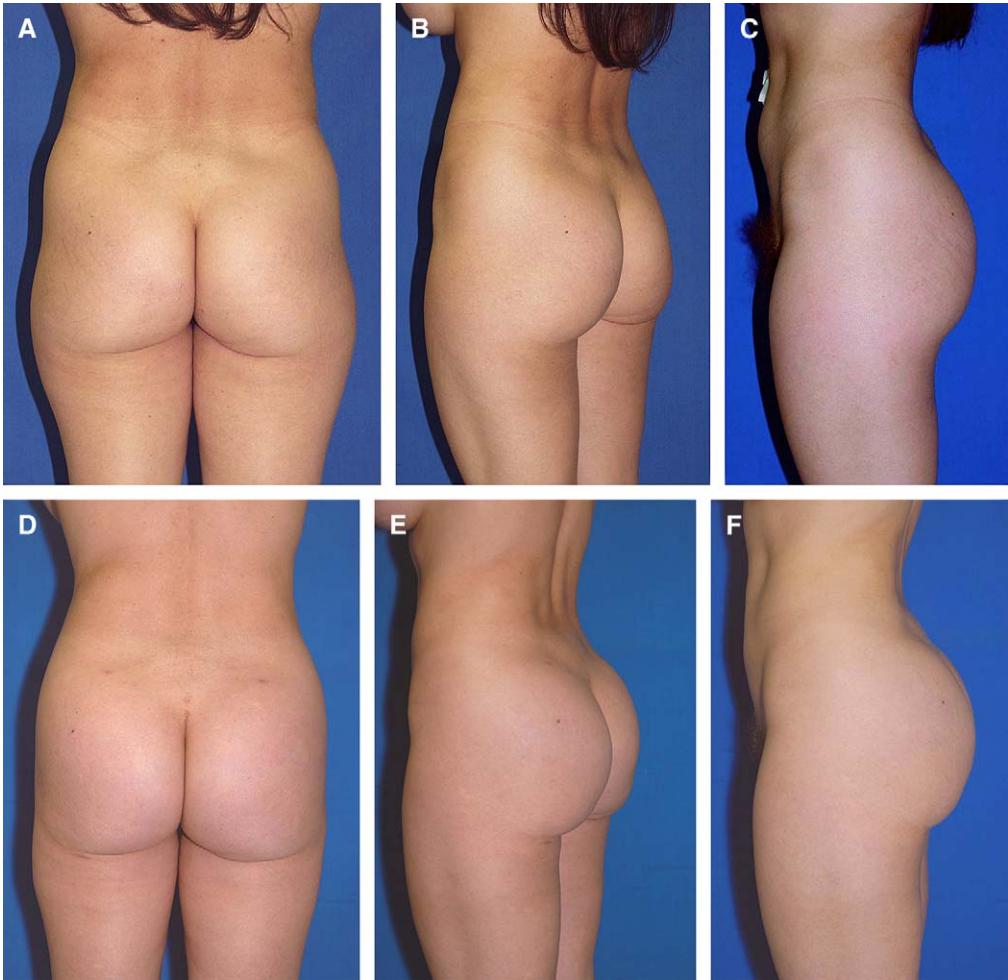


Fig. 7. (A, B, C) Preoperative views. (D, E, F) Five months after receiving round elastomer implants in the intramuscular position and liposuction of the outer legs, upper buttocks, and flanks.

Postoperative pain management

Most of the discomfort following intramuscular augmentation occurs between days 3 and 10 and is usually worse in the early mornings, around 2:00 or 3:00 AM. To relieve postoperative discomfort, I have found Medrol dose packs and Neurotin 100 mg by mouth twice a day to be helpful. Muscle relaxants are also prescribed, as are anxiolytic medications. The pain pump will be most helpful in the period between the second and fifth postoperative days. Other methods for relieving discomfort include stretching and walking.

Possible complications

Wound dehiscence

Without a doubt, wound dehiscence used to be the biggest frustration with intramuscular

augmentation. When using the midsacral incision, no matter what was done—quilting sutures, immobilization, drains, platelet gel, fibrin glue, central island flaps, and so forth—the rates remained high, at 30% to 40%. To add to the frustration, other authors and surgeons I spoke with did not experience this same problem.

To explain the discrepancy, I offer the following possibilities. As the procedure gained in popularity, patients requested larger and larger implants, which placed added strain on the tissues during introduction of the implant into the pocket. The sacral tissues are very sensitive, with a tenuous blood supply, and offer no forgiveness for trauma. Surgeons outside the United States have the option of using silicone gel implants, which are much softer, easier to introduce, and create less tissue trauma. My colleagues around the United States tend to use smaller implants, which create less

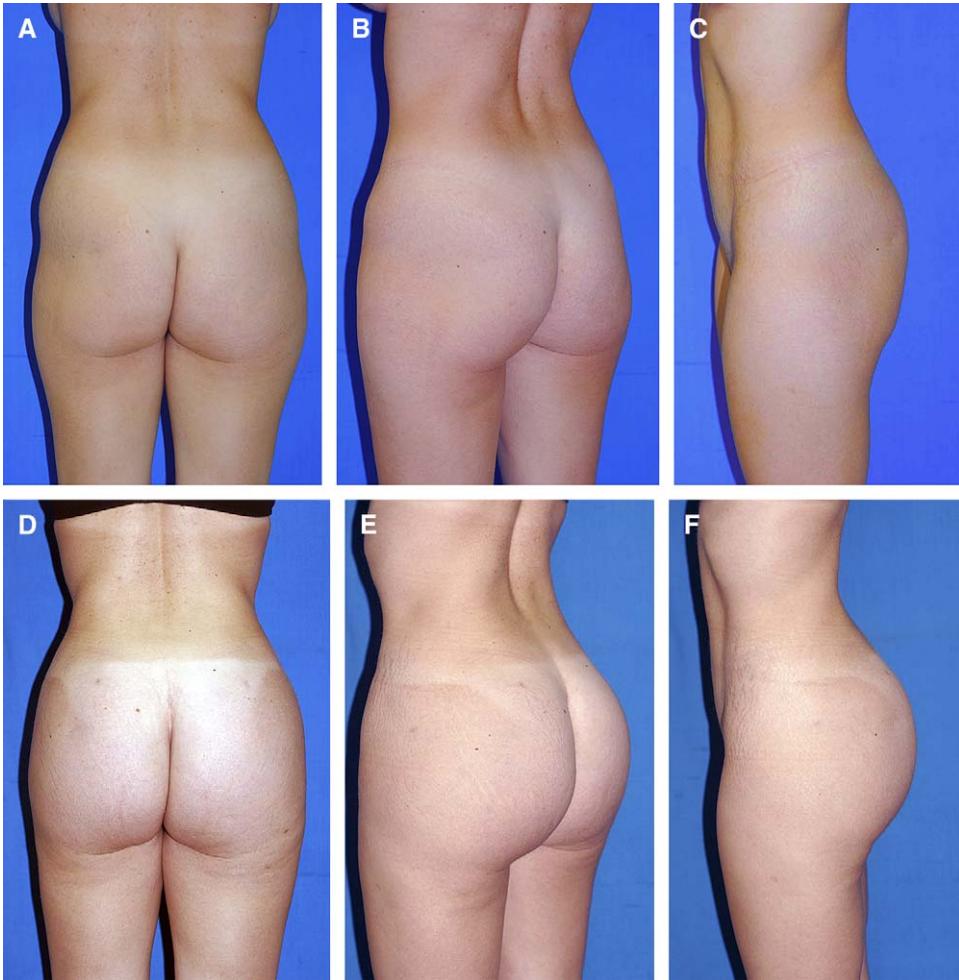


Fig. 8. (A, B, C) Preoperative views. (D, E, F) One year after receiving large anatomic shaped elastomer implants in the intramuscular position. She also had liposuction of the outer legs, upper buttocks, and flanks at the time of her gluteal augmentation.

tissue trauma on implant introduction. The problem with smaller implants is that the augmentation seems so minimal that many patients are unhappy. The dissatisfaction leads patients to demand larger sizes.

The search for alternative incisions led me to the bilateral parasacral incisions, which have lowered the incidence of wound dehiscence to 5% (1 of 18 patients). The one case of dehiscence was a result of poor patient selection and poor patient compliance with postoperative instructions. No dehiscence has occurred in my last 12 patients using the parasacral incisions.

Implant exposure

If no tension is placed during muscle closure, the incidence of implant exposure is low, around 2%

[6]. If an excessively large implant is placed or the patient has extremely tight muscle fibers with very little stretch, the incidence can be as high as 30%. This complication has been greatly reduced through better patient selection, implant size selection, and incision location selection.

Patients are informed that implant size cannot be determined in advance since the biggest variable controlling implant size is the patient's particular muscle tightness, which can be determined only intraoperatively. I attempt to place the largest implant the patient's buttocks can accommodate. If a larger size is desired, fat transfers can be performed, either at the same surgery or as a secondary procedure. Another option is an implant exchange 3 to 6 months later, at which time a fairly large implant can be used because the muscle has been

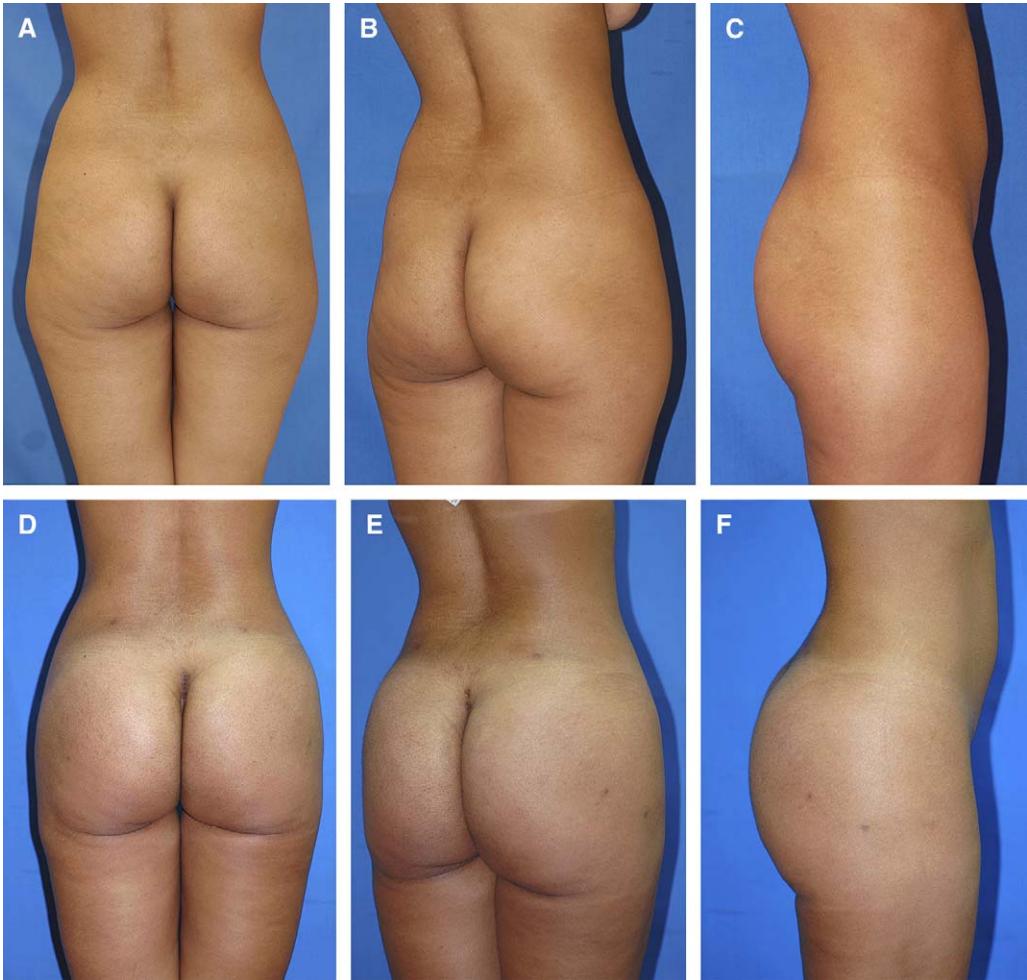


Fig. 9. (A, B, C) Preoperative views. (D, E, F) Nine months following placement of large anatomic shaped elastomer implants plus liposuction of the flanks, upper buttocks, and outer thighs.

stretched. Complication rates following implant exchange are very low, and recovery is extremely quick, with return to work after 5 to 7 days.

If implant exposure occurs, secondary surgery will be required to irrigate the wound and most likely exchange the implant. When the exposure is large, posterior capsular flaps can be used to aid in implant coverage. Patients are told that these are implant salvage techniques, which may be unsuccessful and require implant removal.

Infection

Infections following intramuscular augmentation are rare, with an incidence of 1% to 2% [3,6]. If an infection develops, implant removal may be required. Infections most commonly occur between postoperative days 10 to 14, but they have been seen as late as 3 months. However, implants have been salvaged with secondary surgery, implant exchange, and use of a closed antibiotic irrigation

system for several days. Patients are informed that these salvage techniques may still result in implant removal.

Seroma

The use of drains has decreased the incidence of immediate seroma. Late seroma has an incidence of 3% [3,6] and is usually seen around 6 months postoperatively, although it can occur several years later. Seroma has been primarily associated with the use of textured implants. Resolution requires surgery with implant exchange (substituting for smooth implants), partial capsulectomy, and drainage.

Capsular contracture

Capsular contracture following gluteal augmentation has a 1% incidence, but it is even less with the intramuscular technique. Should a contracted capsule develop, it can be improved with implant

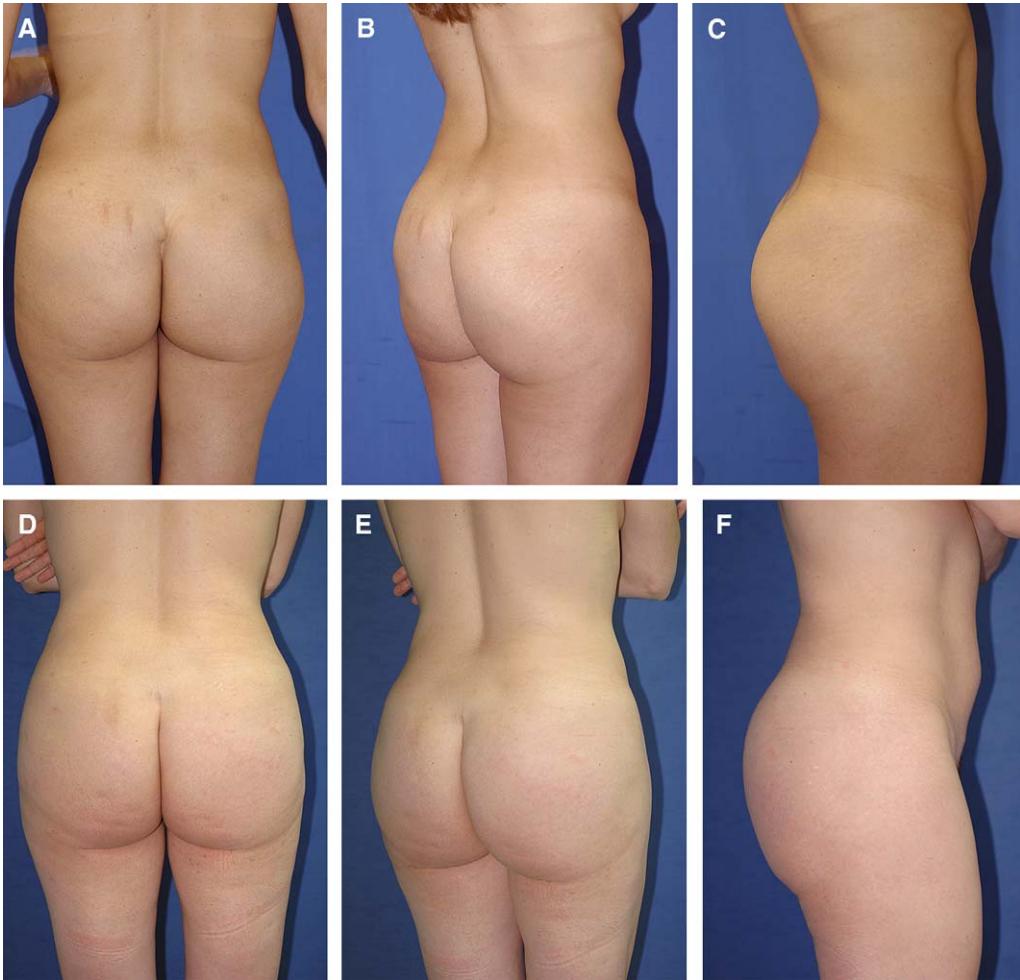


Fig. 10. (A, B, C) This patient received intramuscular gluteal implants from another surgeon 2 to 3 years earlier but was unhappy with her gluteal shape. (D, E, F) Nine months after exchanging her original implants with larger anatomic shaped implants that were placed slightly deeper in the muscle. A lateral capsulorrhaphy and inferior capsulotomy were performed when the implants were replaced.

exchange and partial capsulectomy. As with breast implants, capsular contracture may recur.

Neuropraxia

Hesitation by surgeons to perform gluteal augmentation revolves around concerns of sciatic nerve injury. While these are real concerns, the author has not experienced any nerve injuries in 140 cases using the intramuscular technique. Understanding the anatomy is crucial in gaining confidence, and one must realize that the sciatic nerve is deeper than the intended 3 cm muscle thickness dissection.

Patients will complain of discomfort related to the sciatic nerve in the first month after surgery owing to swelling. In these patients symptoms are improved with stretching exercises, Vitamin B12 and B6, methylprednisolone (such as a Medrol dose

pack), and Neurontin (Pfizer, New York, NY) 100 mg orally twice a day. If symptoms have not improved after 1 week, the Neurontin dose is increased to 200 mg orally twice a day. Most nerve symptoms will improve and disappear over the next 1 to 3 months.

Implant rotation

This is not an issue with round implants, but a small, less than 1%, incidence of implant rotation can occur with anatomic implants. Implant rotation is corrected by placing internal capsulorrhaphy sutures to refine the implant pocket.

Implant lateralization

Over time, an implant capsule may widen and cause the implant to become displaced. The incidence of this complication is in the range of 1%

to 2%. If it occurs, capsulorrhaphy sutures will help re-size the pocket with good success.

Hyperpigmentation or skin discoloration

In some patients skin discoloration occurs, especially in the medial portion of the buttocks, although it may be apparent anywhere on the buttocks. The etiology of this problem is unknown but changes in skin color are permanent. Skin lighteners may help, but no guarantees are made.

Skin ulceration

Ulceration is rare but may be seen when implants are placed in subcutaneous and subfascial positions. If an ulcer develops, the implants should be removed and not replaced for 3 to 6 months while the skin thoroughly heals.

Chronic pain

Chronic pain is usually not a problem with intramuscular augmentation. Possible causes include myositis, fasciitis, capsular contracture, nerve impingement, scarring, or a herniated disk (unrelated to surgery). In some patients, the implant may be too large and cause pain when sitting as the implant forces itself onto the muscle attachment at the posterior iliac crest. In these cases changing to a smaller implant may help; for patients who have anatomic implants, changing to a round implant may solve the problem.

Final advice

Success of intramuscular gluteal augmentation depends on three key points:

1. Select the most appropriate incision for the patient. Several options exist, but the bilateral paraspinous approach has served me well. It is especially appropriate when using larger implants made of silicone elastomer.
2. Preserve the gluteal fascia on the muscle during dissection. This ensures sufficient tissue will be available for covering the implant during closure and reduces the risk of wound dehiscence.
3. Select the appropriate implant size. The proper size will produce minimal tension at closure so that the muscle edges are almost "kissing." Using a sizer greatly helps with determining the implant size most appropriate for a patient. This technical point has decreased the incidence of muscle dehiscence in my patients.

Gluteal augmentation with the intramuscular approach produces very good aesthetic results and, when properly performed, has a low incidence of complications. Using the intramuscular tissue plane ensures that implants are naturally positioned. In addition, larger implants may be used than with the submuscular technique, which many patients request. Of all possible gluteal implant placement options, the intramuscular position provides the greatest amount of implant coverage and pads the implant with muscle tissue above and below as well as along the inferior edge.

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