Curvilinear Labiaplasty and Clitoral Hood Reduction Surgery

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KEYWORDS

• Labiaplasty • Clitoral hood reduction • Radiofrequency • Barbie look • Hybrid look
• Curvilinear labiaplasty • Linear excision labiaplasty

KEY POINTS

- Curvilinear labiaplasty is an effective surgical technique with the fewest risks. It can achieve the appearance the patient desires in almost all cases.
- Labiaplasty is best done in an office setting. Local anesthesia in an awake setting without an intravenous line is exceptionally safe.
- The same basic surgical technique is performed to achieve the degree of labial reduction the patient wants.
- Clitoral hood reduction surgery is often recommended to achieve a balanced and symmetric appearance.
- Radiosurgical tools and techniques are exceptionally precise with minimal lateral heat spread.

CASE STUDY

Erica is an active 36-year-old mother of three children and an athletic trainer. For years, she has felt uncomfortable when wearing her usual workout clothes and aesthetically not pleasing. In her situation, her enlarged labias have caused discomfort and chaffing when rubbing against her clothing. This led to painful intercourse and near-constant irritation bringing her into our office for a surgical consultation. Using a curvilinear approach, we were able to correct the issue with minor recovery time.

A labiaplasty minora surgery and clitoral hood reduction is an outpatient procedure either performed under local or general anesthesia that serves to improve the aesthetic and functional quality of the vulva.[1–3] The procedure not only restores confidence and self-esteem but improves discomfort and irritation for many women. Presently, labiaplasty minora procedures are one of the most frequently performed aesthetic vaginal surgical procedures. Considering normal anatomic variations, Hodgkinson and Hait[4] defined the ideal aesthetic picture of female external genitalia as the one in which the labia minora are small and not larger than the labia majora.

The Technique Used

After years of performing labiaplasty surgery and experimenting with various styles of surgical technique, our preferred approach to performing this procedure is the curved linear technique (sometimes referred to as curvilinear excision, cutting, or amputation techniques) or elliptical excision.[2,4,5] In our opinion it is the most effective with the fewest risks. The incision runs along the length of the labia. It allows the surgeon to remove darker pigmentation often found on the edges of the labia and more accurately create the new shape of the labia as determined by the patient. However, it should be noted that the technique is

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only as good as the experienced surgeon. There are many preferred techniques yielding beautiful results, such as a central wedge technique,[6] modified V-wedge technique (V plasty),[7–9] de-epithelization,[10,11] laser labiaplasty,[12] and radiofrequency (RF) labiaplasty. The RF technique will be described in greater detail in this chapter.

Etiology for Hypertrophic Labia Minora and Hood Reduction

It must be clearly stated to the patient and understood that the anatomic variations in width, length, and symmetry are typically within the normal realm of accepted variations. However, when asked why hypertrophic labias occur, the answer is typically multifactorial, such as childbirth, hormonal causes, aging, and often times genetic and congenital.[5,13] Here are examples of the range of normal (**Fig. 1**).

Can labiaplasty surgery be combined with other gynecologic procedures or cosmetic surgeries?

Labiaplasty is easily paired with other plastic surgery procedures or other gynecologic procedures, such as hysterectomy, bladder slings, and anterior and posterior repairs, vaginoplasties, and perineoplasties.

Basic anatomy

Proper identification of the anatomy is the cornerstone for success in becoming a master genital surgeon. All anatomic variations should be well documented in your notes and in preoperative pictures.

The bilateral mucocutaneous folds between the labia majora and vulvar vestibule are called the nymphae or labia minora.[5,14,15] The labia minora are sensitive to touch during stimulation because of the erectile connective tissue and rich nerve endings (**Fig. 2**). With sexual arousal, the labia minora will become engorged with blood and appear edematous.[16]

The labia minora split anteriorly to encircle the clitoris forming the clitoral hood and the frenulum of the clitoris. The posterior ends of the labia minora terminate below the clitoris as they become linked together by a skin fold called the frenulum of the labia minora. Where the frenulum and the clitoral hood above it merge is a region called the frenular crease typically found 1 to 2 cm below and lateral to the clitoris. It is not found in textbooks but has been used by Alinsod and others as a landmark to achieve precision and symmetry. Anatomy varies widely and, in some instances, there are dual or almost absent frenulum (**Fig. 3**).

When operating on the prepuce (clitoral hood), it is important to stay superficial and lateral to the clitoral glans. An understanding of the dorsal nerve of the clitoris is critical to prevent iatrogenic injuries. The pudendal nerve will branch into 3 main branches: the dorsal nerve for the clitoris, the perineal nerve for the external genitalia, and the inferior rectal nerve. The dorsal nerve of the clitoris provides the afferent part for clitoral erection. In addition to the dorsal nerve of the clitoris, the clitoris's cavernous tissue is innervated by the cavernous nerves from the uterovaginal plexus. The two cords of the dorsal nerve of the clitoris terminate 1 cm short of the glans of the clitoris. The shaft of the clitoris is medial to where we typically perform our clitoral hood reduction and is deeper relative to our surgical area. Clitoral hood surgical reduction is akin to a skinning vulvectomy and is very superficial. Risk of clitoral nerve injury is exceptionally low for the knowledgeable labial surgeon.

The blood supply to the labia minora originates from the pudendal artery, including the dorsal artery of the clitoris. Small perforating branches can be found in the labial tissues top to bottom with the ones in the lower third of the labia minora being most problematic for bleeding, bruising, and hematomas (see **Fig. 3**). Most bleeding sites for labial surgery are easily controlled with electrocautery though occasional suturing may be needed.

The nerve supply to the labia minora and majora originate from the pudendal nerve and become the dorsal labial nerves. This includes the clitoral nerve (**Figs. 4** and **5**).

Indications

There has been a significant increase in patients seeking surgical correction of the labia minora and clitoral hood reduction. According to the American Society of Aesthetic Plastic Surgeons 2017 statistics, requests for labiaplasty have increased by 217.2% from 2012 to 2017. This significant increase in desire to modify the appearance of the labia minora and clitoral hood may be associated with trends in pubic hair removal as well as increased awareness and discussion through social media and other platforms.

Although variations in appearance are for the most part considered within normal anatomy, the labia minora vary widely in length, thickness, and symmetry.

Basic guidelines for genital esthetics include the following: (1) symmetric labia minora that do not protrude past the labia majora, especially when standing; and (2) a clitoral hood that is reasonably short and nonprotuberant without extra folds.



Fig. 1. Normal hypertrophic labia minora and hood examples. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)

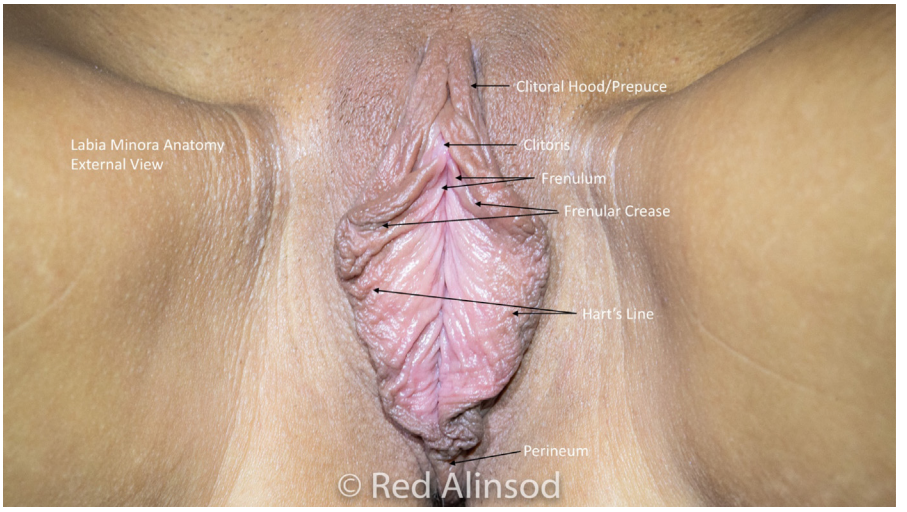


Fig. 2. External vulvar anatomy. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)

Labia minora reduction surgery is performed for reasons of aesthetics or functionality but for most patients it is a combination of both.

There are no absolute contraindications to this procedure. However relative contraindication includes active gynecologic infections and malignancy.[16]

Miklos and Moore: Patients' indications for pursuing surgery. *J Sex Med* 2008; 5:1492 to 1495.[14] In a review by Miklos and Moore, it was revealed 131 patients had undergone a labia reduction surgery: Group I—those who received labia reduction surgery for strictly aesthetic reasons equaled 37% (49/131); Group II—those seeking the surgery strictly for functional impairment equaled 32% (42/131); and Group III—those seeking the surgery for both functional and aesthetic reasons equaled 31% (40/131).

The most common reasons for functional reduction of the labia minora are for recurrent urinary tract infections, hygiene, chronic chafing and irritation during physical activity, labial trauma from childbirth, and a pulling effect leading to insertional dyspareunia. Many women also undergo this type of surgery for aesthetics and confidence issues, such as not liking the bulge under their clothing, asymmetric labias or having to worry about protruding labia in swimsuits or feeling embarrassed during sexual activity.

As indications overlap, most labiaplasties are performed for both a medical therapeutic procedure and cosmetic procedure.

It is important to note that proper screening for body dysmorphic disorder is imperative and refusal to perform surgery and recommendation for proper counseling is vital.

When performing labia minora surgery, a clitoral hood reduction (CHR) is often recommended. The purpose of a CHR is to allow for a debulking and removal of excess and often asymmetrical redundant prepuce on the lateral edges. The most

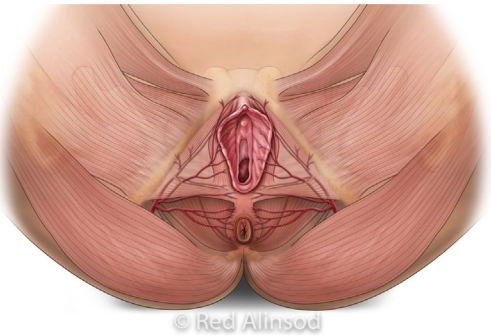


Fig. 3. Vascular supply. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)

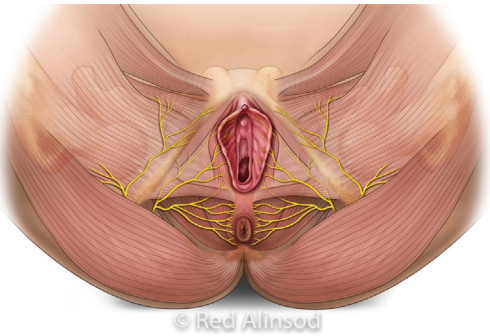


Fig. 4. Nerve supply. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)

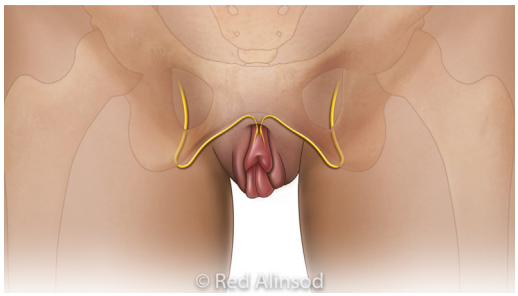


Fig. 5. Clitoral nerve supply. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)

common indication for a CHR is aesthetics as medical-specific indications are less defined.

Goodman[1] defines the goal of this reduction as improving sexual arousal by revealing more of the clitoris. Intuitively this makes sense but no definite studies have been done to confirm this theory. Care must be taken not to unhood the clitoris, which may result in hypersensitivity.

Many authors, including our clinical experience, have reported that a trim curvilinear labiaplasty resection method with a reduction of the labia minora relative to the prominence of the clitoral hood would result in the appearance of being top heavy and would lead to a dissatisfied overall aesthetic outcome for the patient. A micropenis appearance can occur. REFERENCE Therefore, it has been our experience that most labiaplasty minora need to address and consider a clitoral hood reduction at the same time.

Patient evaluation

It is always preferred to have a consultation days before the procedure. This allows for the patient to understand what she is about to undergo and digest the information presented to her before commencing the procedure. However, same-day consultations or virtual consultations followed by a procedure are acceptable as well. The patient evaluation is a great time for both the surgeon and the patient to truly understand what is desired along with setting realistic expected outcomes.

A simple mirror during your physical evaluation is a great tool for mutual decision making and in-depth conversation about the anatomy and realistic expectations. For example, Ms. Jones comes in for uneven and protruding labia minora that cause discomfort during intercourse and feeling insecure about her labia appearance when she is intimate. During the physical examination using a mirror to help the patient view what you are discussing, a decision is made that in addition to helping with symmetry, labia reduction and removal of the darkened edges of the labia are the other outcomes. A clitoral hood, although not bothersome, should be reduced in size to maintain a symmetric look with the reduction in size of the labias in most instances.

Preoperative Recommendation and Planning

This is the time when a full medical screening for general health, STIs, pregnancy status, anxiety, and establishing a clear understanding of the procedure with realistic expectations and potential complications are thoroughly discussed with the patient. In addition to a verbal discussion of how best to prepare for surgery, we offer our patients a written guideline of preoperative instructions as seen below.

Preoperative preparation for labiaplasty surgery

1. Quitting smoking for a minimum of 4 weeks prior and 3 to 4 weeks after surgery will decrease wound complications by up to 50%.
2. No aspirin or nonsteroidal anti-inflammatory drugs (NSAIDs) should be taken. NSAIDs should be discontinued 7 to 10 days before surgery although Tylenol is acceptable.
3. Discontinue fish oils 7 to 10 days before surgery.
4. We recommend no alcohol 48 hours before the procedure.
5. We recommend starting Arnica or Bromelain 2 days before the procedure and a few days post procedure as a gentle anti-inflammatory.
6. We recommend trimming all pubic hair short around the labias. Avoid shaving or waxing before surgery.
7. Wear loose-fitting comfortable clothes on the day of surgery.
8. Start prophylactic antiviral medications before surgery for history of herpes simplex virus.
9. Must have a driver to take you home from the office or surgery center if any sedation was used.
10. If the procedure is done in an office setting with local anesthesia, we recommend a light meal before surgery and plenty of hydration.

Patient positioning

Patients are placed in a low lithotomy position with proper leg, calf, and ankle support.

We recommend a motorized bed to allow for optimum positioning and visibility for this procedure (**Fig. 6**).

Anesthesia

Almost all labial surgeries are done awake and in the office without an intravenous line. We recommend the patient arrive 1 h before the procedure.



Fig. 6. Leg support. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)

This allows for any paperwork that needs to be completed. It also allows us to review and sign the consents if not done before the day of surgery. We typically recommend all consents be completed in the preoperative consultation. If performed under local anesthesia, we typically will give an anxiolytic such as 1 mg tablet of lorazepam to be administered 30 minutes before starting the procedure in addition to an oral or intramuscular narcotic. Examples are Dilaudid or Demerol. We also recommend applying a numbing cream such as an EMLA cream or compounded numbing cream (30%–35% BLT or bupivacaine/lidocaine/tetracaine) to the area 30 to 60 minutes before the procedure. In some instances, we use Compazine or Zofran as needed. We use a predictive permeation device for about 15 min to drive the numbing cream deeper into the skin. Predictive permeation, also known as dermoelectroporation, opens up the water channels and pushes in the BLT deeper under the skin to improve the numbing effect (**Fig. 7**).

Once proper markings are made, for local procedures, I recommend a mixture of 1% lidocaine with epinephrine 50/50 with 1% marcaine plain buffered with sodium bicarbonate. Another simple option is 0.25% marcaine/bupivacaine with epinephrine buffered with 1 cc sodium bicarbonate to reduce the burning sensation felt upon injection.

Most patients need about 4 to 6 cc of local numbing to achieve the levels needed to proceed without any pain. Keeping the amount of numbing to a minimum is vital and will minimize any disruption of the surgical site and allow for better accuracy in performing the procedure. All injections are recommended to be done medial to the side of surgical dissection on both the medial and lateral aspects of the labia and beneath the clitoral hood as needed (**Figs. 8–11**). The crease between the minora and majora is the ideal location to inject. A 1.5-inch 30-gauge needle works best. I also usually recommend numbing the patient at the end of the case for prolonged comfort. Exparel (liposome-coated bupivacaine) postoperative can give up to 3 days of pain control and is excellent for the traveling patient. Use at the end of the case avoids tissue distortion.

Markings

Marking the patient properly and clearly before starting the local numbing injections that swell and distort the anatomy is crucial. Once the markings are performed, trust and follow them. A proper disposable sterile surgical marking pen should be used with every new case (**Fig. 12**).

When marking the labia minora, we recommend starting laterally and below the frenulum and extending the marking inferiorly till the desired look is achieved. Do not place any pulling tension on the labia as you are marking this will lead to misinterpretation on the amount of resection needed and subsequently over-resection of the labias. Markings should be done on relaxed and untugged labias (**Figs. 13–19**).

It should be noted that significantly large tissue retraction occurs in the upper one-third of the labia minora and therefore a tapering-down incision is recommended. You need to pay close attention



Fig. 7. Predictive permeation. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 8. Start at the crease between the labia minora and majora. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 9. Inject small drops to avoid distortion of anatomy. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 10. Inject on the medial aspect at the frenulum, under the hood, and downward. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 11. Inject under the lateral clitoral hood. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)

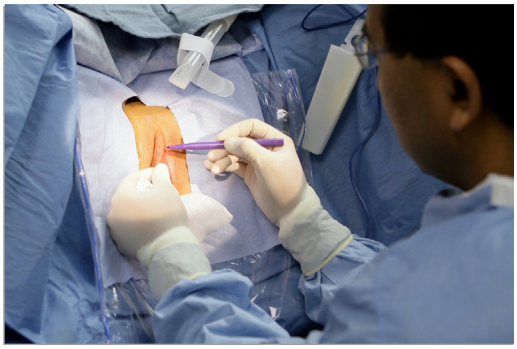


Fig. 12. Use a sterile surgical marker. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 13. Start at the frenular crease both medial and lateral. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 14. Lateral dots start below the frenulum. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 15. Connect the dots. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 16. Medial markings below frenular crease. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 17. Kiss the edges for symmetry. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)

to staying above Hart's line which is approximately 1.5 cm from the base in the upper one-third of the labia. The medial side of the labia is also marked, and we recommend kissing both medial sides to get a proper estimation of symmetry bilaterally. The markings should be made according to the type of labiaplasty a patient desires. The 3 most common variations will be described here.

The Rim Look labiaplasty involves a curve linear excision of only the darkened pigmentation on the rim of the labia. It is the most conservative labial reduction. The Hybrid Look is the most commonly performed type of labiaplasty and is a middle-of-the-road look between the rim appearance and the Barbie labiaplasty (**Figs. 20** and **21**). It leaves a small amount of labia at or below the level of the labia majora.3.

The Barbie Look labiaplasty, coined by Dr. Red Alinsod, removes nearly all of the labia minora and is close to an amputation appearance.3 It looks to create a petite and clam shell appearance that is very comfortable. It works well if there is adequate labia majora puffiness. It is requested by many athletes and fit women who do not want to adjust themselves all day or do not want to outline their labia in tight exercise clothing or swimsuits. We recommend extensive surgical experience performing this type of labiaplasty along with extensive and detailed patient



Fig. 18. Post kiss of edges. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 19. Right lateral line. Do not pull on the edges while marking. The right-handed surgeon has a tendency to pull on the right labia, which results in aggressive markings that can result in an amputated appearance specially in the top third of the labia. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)

counseling before performing a Barbie labiaplasty (see **Figs. 53** and **54**).

In a study of 238 women considering labial reduction, 98% sought a labia minora reduction to the level of or below the level of the labia majora.[17]

According to the Miklos and Moore study, 97% of 550 women wanted to remove the dark edges of their labia minora.[17]

The technique we use in marking our clitoral hood and prepuce is based on Dr. Red Alinsod's recommended technique for hood reduction.[3] A 6 to 8 mm vertical midline strip of clitoral hood skin over the central axis of the clitoral hood body is spared. A line is drawn medially preserving 5 to 6 mm as it is attached to the labia minora, we like to call that spared area of clitoral hood the "bridge" and connecting along the lateral edge of the interlabial sulcus.

Surgical technique (LP and clitoral hood reduction)

It is often necessary to reinforce the markings before commencing the surgical dissection. Before discussing the technique, I would like to highlight that meticulous hemostasis is imperative for minimizing bruising and hematoma formation and therefore improving your final outcome. It is also important to remember that when operating on the labia minora a little goes a long way due to the tendency of significant tissue retraction. For this reason when performing your initial surgical markings, my recommendation is to not be fooled by only focusing on the medial mucosal aspect of the labia minora which appears longer than the lateral interlabial fold.

We recommend starting with the more challenging side first and always remembering that if unsure, taking less tissue and staying at or above Hart's line will always pay off as a revision to trim

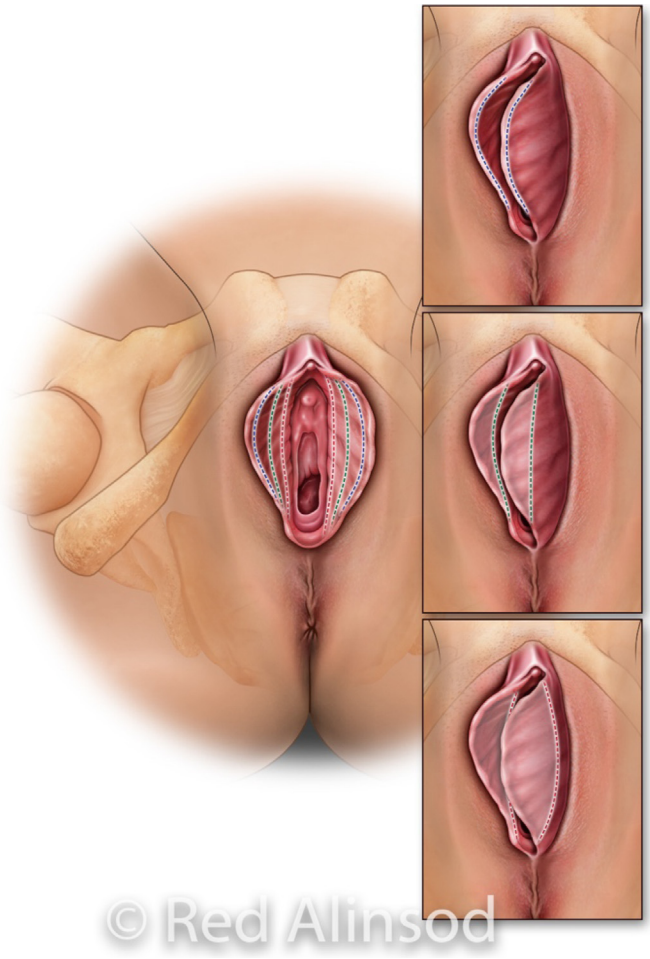


Fig. 20. Illustrated from the top are the Rim, Hybrid, and Barbie Look markings. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)

more tissue is far better than having to deal with an overly resected labium.

Most surgeons performing in office labiaplasties prefer to use an RF pinpoint instrument that allows for precision incisions, minimal lateral spread and some degree of hemostasis. However, many modalities are used with great results such as Metzenbaum scissors, lasers, and scalpel instruments.

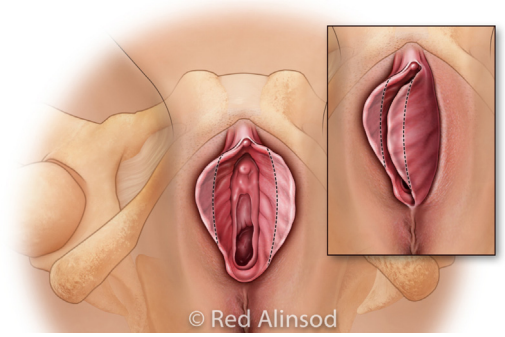


Fig. 21. Markings for an average labial reduction Rim Look. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)

Currently in the United States, there are three RF systems currently used for RF pinpoint tip for excision. These are the Ellman Surgitron and Pelleve system and the new Soniquence system released in 2021. Typically, a cutting mode of 10 to 15 W is used for the excision and a blend or coagulation mode of 20 to 25 W.

A great advantage of using the pinpoint needle tip is that the angle of the pinpoint tip can be easily changed to accommodate a change in the degree of direction when cutting into the interstitial tissue of the labia minora.

A recommended technique to minimize the thickness and debulk the labia is to cut at a 45-degree angle into the middle of the labia minora to create a small canal allowing for a debulking effect when reapproximating the edges of the labia.

Hence, the term canal incision has been used by Alinsod in his programs.

Once the excision is made along the predetermined marking, hemostasis is imperative. Cautery is ideal in a pinpoint technique (ie, Colorado tip) as opposed to spraying the surface area with the bovie. As an alternative, bipolar RF systems are used once the initial incision has been done to achieve very dry surgical fields (**Figs. 22–29**).

Once meticulous hemostasis is achieved, it should be noted that cauterization leads to increased tissue shrinkage and retraction and therefore one must take this into consideration when making markings and using the cautery device. After completing incision and excision, refinements are performed to ensure edge matching. The smoothing of rough and irregular edges can be performed using the "feathering" technique using the same pinpoint tip popularized by Alinsod.

One of the advantages of having the patient awake is the ability to enlist her approval on the amount of tissue removed. Before starting the incision closure, hand the patient a mirror so she can assess and approve the degree of tissue removed but only if she is feeling comfortable to do so.

We recommend a layered closure to close any dead space (a crucial step in minimizing any hematoma formation).

The initial and deepest layer is closed using a 4 to 0 or 5 to 0 monofilament suture such as Monocryl. We recommend using a noncutting needle, such as a small half circle (SH)-tapered needle. We typically start from the most cephalad portion of the incision below the frenulum and run the suture in an inverted mattress technique (**Figs. 30–32**).

We recommend this type of suture due to the extended delayed breakdown and recommend closing the deepest layer of both labias first. This will allow the surgeon the option for any minor adjustment needed before the final closure of the labia. The second layer closure is typically performed using a synthetic absorbable suture composed of polyglycolic acid sutures such as polyglactin 910 (Vicryl).



Fig. 22. Pinpoint RF incision. RF, radiofrequency. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 23. 45 Degree incisions to create a "canal". (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)

It is acceptable to use a Vicryl Rapide suture for accelerated suture breakdown but only on the very last layer. Again, a tapered SH needle is preferred over a cutting needle and a 5 to 0 Vicryl suture is recommended. The second layer closure is typically another layer of subcuticular closure to align the edges or a final layer of loosely tied but secure interrupted Vicryl sutures placed along the length of the labia minora. We typically will space them 5 mm apart.

Once the labia minoras have been approximated, we shift the focus on the already marked prepuce if a clitoral hood reduction has been recommended and consented. It has been our experience that the majority of labia minora should undergo at the same time a clitoral hood reduction to maintain the symmetry of the overall look.

Following the premarked markings along the prepuce, we use our RF pinpoint needle with the same settings used for the labiaplasty procedure. Once the excess skin has been removed along the lateral edges of the clitoral hood, close attention is paid to hemostasis using pinpoint cautery and avoiding a spray technique.

The lateral clitoral incisions are closed in a similar multilayer approach. The deepest layer closure consists of a running noninterlocking 5 to 0 Monocryl layer to close any dead space and



Fig. 24. 45 Degree incision from the medial aspect to create the "canal". (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 25. Bipolar cautery control of bleeding and excision. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 26. Pinpoint RF incision into the opposite labia at a 45-degree angle. RF, radiofrequency. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 27. Pinpoint RF incision from the lateral side at a 45-degree angle for debulking. RF, radiofrequency. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 28. Bipolar cautery to control bleeding and excise the labia. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 29. Using the RF pinpoint tip for refinements and feathering. RF, radiofrequency. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)

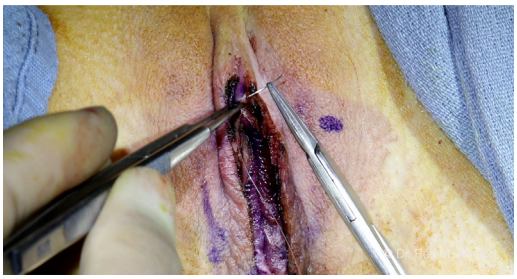


Fig. 30. Deep closure with 5-0 Monocryl suture. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)

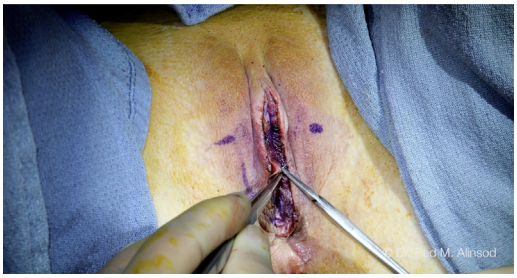


Fig. 31. Inverted mattress suturing. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 32. 5-0 Vicryl interrupted suturing. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)

bring the edges closer together. Once the initial layer is closed, it is a good time to pause and reassess the incision for any small modifications and edits. This is typically followed by a final layer of running a noninterlocking layer using 5 to 0 Vicryl or gently secured interrupted sutures using a 5 to 0 Vicryl (**Figs. 33–48**).

When placing your final layer, it is crucial to properly line the angle downward so that each side flows in a smooth and symmetric manner. 5 to 0 Vicryl or Vicryl Rapide for this layer is perfectly acceptable. It should be noted that both the labiaplasty minora and clitoral hood final layer closure should be gently and loosely tied to minimize tissue strangulation and the anticipation of tissue swelling. Loosely tied sutures will also prevent the scalloped or stair-stepped appearance.

Postoperative instructions

The advantage of combining a clitoral hood reduction with a labiaplasty minora is that the recovery, healing time, and instructions are very similar thereby making it a great combination procedure both for the patient and surgeon.

For both procedures, a detailed discussion and explanation of expectations during the acute recovery stage is vital. I will refer to the first few days of these procedures as the Frankenstein period due to significant bruising and asymmetric swelling that often may occur and frighten the patient. Detailed postoperative instructions are reviewed and given to the patient. We strongly recommend icing every 15 minutes of every hour, when possible, for the first 48 to 72 hours and minimizing excessive walking. We also encourage Arnica, Bromelain, and other anti-inflammatory aids to be taken during this time period. No exercise or heavy lifting is recommended for the first 4 weeks.

Showering is permitted with gentle daily cleansing using soap and water in a cupping-like fashion. We do not recommend taking hot baths or soaking in sitz baths for the first 4 weeks as these tend to weaken the suture integrity.



Fig. 34. Marking the midline for a clitoral hood reduction using dots. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)

As the sutures start to dissolve many patients report a slightly odorous discharge that may be interpreted as an infection. During this stage of suture lysis, many patients report significant pruritus of the suture line, and an antihistamine is often recommended for this period of the healing. Topical diphenhydramine (Benadryl cream) works very well without sedation. In most cases infections are rare, however, if clinically appropriate culture and treatment for infection is recommended. We encourage the patient to come to the office 2 weeks after surgery for an examination and trimming of sutures if wound edges are healing properly.

Most patients will resume full physical activity including intercourse by week 6, but we recommend if possible, seeing the patient before allowing for intercourse to occur. If there is suturing at the introitus then massage of the suture line is recommended to prevent tearing and pain. Softening of this area with gentle finger massage for 1 to 2 weeks works well.

Although week 6 is often used as a term for complete healing, we recommend making it clear to the patient that the incision itself will soften and be fully healed by the fourth month postprocedure.



Fig. 33. Final examination of labia minora. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 35. Marking the lateral border right on the crease. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 36. Marking the top ridge of the clitoral hood. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 37. Completing the elliptical lateral markings on the left. Note the "bridge" separating the edge of the clitoral hood marking and the labial marking. Keep this at least 1 cm wide. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 38. Marking the top ridge of the opposite side of the clitoral hood. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 39. Gentle and light touch RF incision of the left lateral clitoral hood border. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 40. Incision into the top ridge of the left clitoral hood. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 41. Skinning excision of the left lateral clitoral hood. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 42. Left lateral clitoral hood excision completed. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 43. Right lateral clitoral hood incision. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 44. Right lateral clitoral hood excision complete. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 45. Hemostasis with standard cautery. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 46. Inverted mattress sutures with 4-0 or 5-0 Monocryl. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 47. Skin and fascial edges approximated gently. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 48. Interrupted 5-0 Vicryl sutures placed loosely to approximate the edges. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)

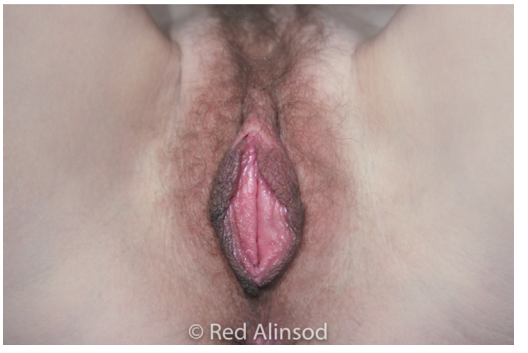


Fig. 49. Rim labiaplasty before. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 50. Rim labiaplasty after. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 51. Hybrid labiaplasty before. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 52. Hybrid labiaplasty after. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)



Fig. 54. Barbie look labiaplasty after. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)

Given the nature and sensitivity of these types of procedures, we strongly recommend careful follow-up and being easily accessible to your patients. In our practice, we recommend the initial postoperative follow-up at 1 week and no more than 2 weeks. For patients living far away, we recommend a postoperative virtual consultation.

Postoperative complications

Although complications and adverse events are low, they can range from 2.65%, 12% to 6%.[7]

We highly recommend that the following potential complications be included in your consent for surgery and reviewed with the patient preoperatively.

These complications can include postoperative infection,[13] hematoma,[18] premature suture absorption, wound breakdown, asymmetry, and excessive skin retraction leading to dyspareunia and localized pain. However, the most concerning is overcorrection of the labia minora with a potential for amputation.[3]

Many of these complications are avoided by adhering to the following recommendations:



Fig. 53. Barbie look labiaplasty before. (*Courtesy of* Red Alinsod, MD, Laguna Beach, CA.)

- Strict adherence to postoperative instructions minimizing excessive walking and lifting
- Using the proper size and material of the suture; Monofilament is a must for the deep layers and avoids premature auto lysis. 5 to 0 Monocryl works well for this layer.
- Avoiding scalloping by placing little tension on the tissue when tying the final layer of the suture line; 5 to 0 Vicryl works well for this top layer.
- Respecting Hart's line and staying surgically conservative if need be
- Keeping the legs together at the knees as much as possible in the first 2 weeks; we affectionately call this "Velcro knees" in our practice
- Avoidance of knee and hip bends for the first month

We recommend listening carefully to patients both preoperatively and postoperatively.

If a revision is recommended, we normally recommend delaying any revision for at least 3 months post-procedure.

Overall, studies have shown high patient satisfaction rates for labiaplasty and clitoral hood reduction procedures with improved aesthetic and functional outcomes. Of 177 patients who had labiaplasty and or clitoral hood reduction, 97.2% were satisfied overall with the outcomes.[7]

Below are examples of Before and After of Rim, Hybrid, and Barbie Look labiaplasties (**Figs. 49–54**):

SUMMARY

- The most common approach and easiest learning curve to a labiaplasty minora procedure among both gynecologists and plastic surgeons is the curve linear approach.
- The curve linear approach allows for a bigger degree of reduction in length and thickness of

the labia minora as opposed to a V-wedge resection. In addition, the curve linear approach allows for removal of the often-present hyperpigmented area and wrinkling on the rim of the labia minora.

- Most labiaplasty minora will need in addition a clitoral hood reduction to maintain symmetry. Therefore, we recommend the patient be given a mirror to observe and discuss the overall look of her vulva.
- When first starting the learning curve for a labiaplasty procedure with the curve linear method, I recommend erring on the conservative side of tissue removal as to minimize the risk of over-resection and unanticipated tissue retraction leading to a potential for amputation.
- I also always recommend allowing the patient to have an active role by showing them the markings and allowing them to ask any questions before starting the case. This allows for greater mutual decision making.
- Maintain exceptional hemostasis and close all dead space before closing your incision thereby optimizing the final result and decreasing the incidence of hematoma and suture separation.

CLINICS CARE POINTS

- The most common approach and easiest learning curve to a labiaplasty minora procedure among both gynecologists and plastic surgeons is the curve linear approach.
- The curve linear approach allows for a bigger degree of reduction in length and thickness of the labia minora as opposed to a V-wedge resection. In addition, the curve linear approach allows for removal of the often present hyperpigmented area and wrinkling on the rim of the labia minora.
- Most labiaplasty minora will need in addition a clitoral hood reduction to maintain symmetry. Therefore, we recommend the patient be given a mirror to observe and discuss the overall look of her vulva.
- When first starting the learning curve for a labiaplasty procedure with the curve linear method, I recommend erring on the conservative side of tissue removal as to minimize the risk of over-resection and unanticipated tissue retraction leading to a potential for amputation.
- I also always recommend allowing the patient to have an active role by showing them the markings and allowing them to ask any questions before starting the case. This allows for greater mutual decision making.
- Maintain exceptional hemostasis and close all dead space before closing your incision thereby optimizing the final result and decreasing the incidence of hematoma and suture separation.

DISCLOSURE

The Authors have nothing to disclose.

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