Elective Female Genital Cosmetic Surgery

ABSTRACT: “Female genital cosmetic surgery” is a broad term that comprises numerous procedures, including labiaplasty, clitoral hood reduction, hymenoplasty, labia majora augmentation, vaginoplasty, and G-spot amplification. Both patient interest in and performance of cosmetic genital procedures have increased during the past decade. Lack of published studies and standardized nomenclature related to female genital cosmetic surgical procedures and their outcomes translates to a lack of clear information on incidence and prevalence and limited data on risks and benefits. Women should be informed about the lack of high-quality data that support the effectiveness of genital cosmetic surgical procedures and counseled about their potential complications, including pain, bleeding, infection, scarring, adhesions, altered sensation, dyspareunia, and need for reoperation. Obstetrician–gynecologists should have sufficient training to recognize women with sexual function disorders as well as those with depression, anxiety, and other psychiatric conditions. Individuals should be assessed, if indicated, for body dysmorphic disorder. In women who have suspected psychological concerns, a referral for evaluation should occur before considering surgery. As for all procedures, obstetrician–gynecologists who perform genital cosmetic surgical procedures should inform prospective patients about their experience and surgical outcomes. Patients should be made aware that surgery or procedures to alter sexual appearance or function (excluding procedures performed for clinical indications, such as clinically diagnosed female sexual dysfunction, pain with intercourse, interference in athletic activities, previous obstetric or straddle injury, reversing female genital cutting, vaginal prolapse, incontinence, or gender affirmation surgery) are not medically indicated, pose substantial risk, and their safety and effectiveness have not been established.

Recommendations and Conclusions

The American College of Obstetricians and Gynecologists makes the following recommendations and conclusions regarding the use of and indications for female genital cosmetic surgery.

- Patients should be made aware that surgery or procedures to alter sexual appearance or function (excluding procedures performed for clinical indications, such as clinically diagnosed female sexual dysfunction, pain with intercourse, interference in athletic activities, previous obstetric or straddle injury, reversing female genital cutting, vaginal prolapse, incontinence, or gender affirmation surgery) are not medically indicated, pose substantial risk, and their safety and effectiveness have not been established.
- Women should be informed about the lack of high-quality data that support the effectiveness of genital cosmetic surgical procedures and counseled about their potential complications, including pain, bleeding, infection, scarring, adhesions, altered sensation, dyspareunia, and need for reoperation.
- Obstetrician–gynecologists should have sufficient training to recognize women with sexual function disorders as well as those with depression, anxiety, and other psychiatric conditions. Individuals should be assessed, if indicated, for body dysmorphic disorder. In women who have suspected psychological concerns, a referral for evaluation should occur before considering surgery.
- In responding to a patient’s concern about the appearance of her external genitalia, the obstetrician–gynecologist can reassure her that the size, shape,
and color of the external genitalia vary considerably from woman to woman. These variations are further modified by pubertal maturity, aging, anatomic changes resulting from childbirth, and atrophic changes associated with menopause or hypoestrogenism, or both.

- As for all procedures, obstetrician–gynecologists who perform genital cosmetic surgical procedures should inform prospective patients about their experience and surgical outcomes.
- Advertisements in any media must be accurate and not misleading or deceptive. "Rebranding" existing surgical procedures (many of which are similar to, if not the same as, the traditional anterior and posterior colporrhaphy) and marketing them as new cosmetic vaginal procedures is misleading.

**Background**

*Female genital cosmetic surgery,* when referred to in this Committee Opinion, is defined as the surgical alteration of the vulvovaginal anatomy intended for cosmesis in women who have no apparent structural or functional abnormality. Genital cosmetic surgery will not refer to procedures performed for clinical indications (eg, clinically diagnosed female sexual dysfunction, pain with intercourse, interference in athletic activities, previous obstetric or straddle injury, reversing female genital cutting, vaginal prolapse, incontinence, or gender affirmation surgery).

The goals of this Committee Opinion are to provide the following three items: 1) potential reasons for the increase in the number of cosmetic genital surgical procedures; 2) a brief overview of cosmetic vaginal procedures and outcomes data associated with them; and 3) an opinion on their use for the sole purposes of cosmesis, sexual function augmentation, or both. This Committee Opinion has been updated to include new data on elective female genital cosmetic procedures and their outcomes, as well as guidance on patient counseling. For guidance on labial surgery in adolescents, see Committee Opinion No. 686, *Breast and Labial Surgery in Adolescents*.

Both patient interest in and performance of cosmetic genital procedures have increased during the past decade. For example, labiaplasty rates in the United States increased more than 50% between 2014 and 2018 (2). At the same time, ethical and, more recently, safety concerns have been raised about the performance of cosmetic genital surgery. In July 2018, the U.S. Food and Drug Administration (FDA) issued a warning against the use of energy-based devices (most commonly, radiofrequency or laser) outside of standardized research protocols for cosmetic vaginal procedures or vaginal "rejuvenation," citing their potential for serious adverse events, including vaginal burns, scarring, pain during sexual intercourse, and recurring or chronic pain (3). The FDA has not cleared or approved any energy-based medical device for vaginal "rejuvenation" or vaginal cosmetic procedures, or for the treatment of vaginal symptoms related to menopause, urinary incontinence, or sexual function.

**Potential Reasons for Increased Interest in Genital Cosmetic Surgery**

Shaving, waxing, electrolysis, and laser removal of pubic hair may allow a better view of the external genitalia for both women and their partners. In a cross-sectional study of more than 2,400 women aged 18–68 years living in the United States, 79% had partially or totally removed their pubic hair or were hair-free in the past month (4). One consequence of this procedure may be to draw more attention to asymmetries and differences in the external genitalia, potentially contributing to an increased desire for surgical alteration (5).

The perception of having aesthetically inferior external genitalia, augmented by the internet, online pornography, and other media sources, may drive women to seek surgical alteration (6). Women who explore cosmetic surgery often turn to internet searches. This is particularly important because the internet may be their only source of information (6). A systematic review of online content that promoted female genital cosmetic surgery found that sites that promoted cosmetic genital surgery regularly described the wide variation of normal vulvar appearance as unnatural or diseased and implied that variation beyond the prepubescent-looking vulva (eg, no visible labia minora, narrow vaginal opening) results in distress and sexual dysfunction (6). In a cross-sectional survey of 395 participants, older women (45–72 years of age) were more likely to consider cosmetic genital surgery than a cohort of younger women (18–44 years) (7); this is not surprising given the societal emphasis on reversing the effects of normal aging. In a prospective study of 33 women who sought labial reduction surgery at a London gynecology clinic, dissatisfaction with appearance was most commonly reported. For the entire cohort, however, the dimensions of the labia minora measured within the range of typical variability (8).

Of equal importance are marketing claims that genital cosmetic surgery treats cosmetic and functional issues and enhances sexual satisfaction. Much of the increase in popularity seen in vulvovaginal procedures for nonmedical indications is associated with the success of direct-to-consumer marketing in the 1990s (9, 10). In 2013, the Royal College of Obstetricians and Gynaecologists recommended, and the American College of Obstetricians and Gynecologists agrees, that women should be given accurate information about normal variations in genital anatomy and that advertisement of female genital cosmetic surgery should not mislead women on what is considered to be normal or what is possible with surgery (11). Characterizing normal anatomic variation as necessitating medical intervention exposes otherwise healthy women to unnecessary surgery with the potential for serious complications. Additionally, industry-generated conditions and diagnoses, where a proprietary device is deceptively marketed as a proven treatment, are concerning (12, 13).
Outcomes of Cosmetic Gynecology Surgery

“Female genital cosmetic surgery” is a broad term that comprises numerous procedures, including labiaplasty, clitoral hood reduction, hymenoplasty, labia majora augmentation, vaginoplasty, and G-spot amplification; see Table 1 for descriptions of surgical techniques and complications. Aside from labiaplasty, it is difficult to know how often these procedures are being performed. Lack of published studies and standardized nomenclature related to female genital cosmetic surgical procedures and their outcomes translates to a lack of clear information on incidence and prevalence and limited data on risks and benefits. In general, the safety and effectiveness of these elective procedures have not been well documented, and evidence largely is restricted to clinical case reports and retrospective studies. Measures used to assess outcomes, such as patient questionnaires, are rarely comparable across studies, and follow-up rates vary widely (14). Reports of patient satisfaction should not serve as evidence that these procedures are clinically effective (15).

Table 1. Cosmetic Genital Procedures

<table>
<thead>
<tr>
<th>Type of Procedure</th>
<th>Purported Benefit*</th>
<th>Procedures Used</th>
<th>Reported or Potential Complications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgical Procedures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clitoral hood reduction</td>
<td>To improve sexual function by increasing sensitivity and allowing more direct clitoral contact</td>
<td>Hoodectomy, Note: Often combined with labiaplasty to create labia minora symmetry and prevent clitoral hood sagging</td>
<td>Scarring, Infection, Hematoma, Hypersensitivity, Damage to the glans</td>
</tr>
<tr>
<td>Labiaplasty</td>
<td>To eliminate unwanted tissue of the labia minora or labia majora</td>
<td>Trim or edge resection, Wedge resection using a V-shaped or Y-shaped incision, Z-plasty, De-epithelialization</td>
<td>Scarring, Infection, Hypersensitivity or loss of sensation, Dyspareunia, Wound dehiscence</td>
</tr>
<tr>
<td>Labia majora augmentation</td>
<td>To create a full, symmetric look</td>
<td>Autologous fat transplantation, Injectable fillers (hyaluronic acid)</td>
<td>Palpable fatty cysts</td>
</tr>
<tr>
<td>Hymenoplasty</td>
<td>To recreate the virginal state of the hymen; has cultural roots in regions that place a value on an unmarried woman’s virginity</td>
<td>Reconstruction of hymenal remnants, vaginal mucosal flaps, or both</td>
<td>Wound dehiscence</td>
</tr>
<tr>
<td>Vaginoplasty</td>
<td>To tighten vaginal contour and increase sexual satisfaction</td>
<td>Anterior, posterior, or lateral colporrhaphy, Rugation restoration¹, Energy-based devices</td>
<td>Infection, Dyspareunia, Dehiscence, Fistula</td>
</tr>
</tbody>
</table>

Energy-Based Interventions

| Energy-based vaginal procedures¹ | To tighten vaginal contour and increase sexual sensation | Laser radiofrequency | Burns, Scarring, Pain during sexual intercourse, Recurring or chronic pain |

Injections

| G-spot amplification | To augment G-spot and heighten sexual satisfaction | Autologous fat transfer, Hyaluronic acid | Urinary tract infection, Infection |

*This may not be the patient goal, but these procedures are often marketed with these outcomes.

Labiaplasty is the most commonly performed cosmetic genital surgical procedure, and a variety of techniques have been described (Table 1). Clitoral hood reduction frequently is performed at the time of labiaplasty to reduce the occurrence of clitoral hood sagging after labiaplasty alone. In a multicenter retrospective cohort study of 258 women who underwent 341 cosmetic genital procedures, 177 underwent labiaplasty, clitoral hood reduction, or both (16). Although this study reported high patient satisfaction and enhancement in sexual function, these results should be interpreted with extreme caution given the lack of a comparison group and use of poorly constructed questionnaires, none of which were validated. Although validated scales were used in the same author’s 2016 prospective cohort case-controlled study of 120 individuals, only 54% of the women having genital cosmetic surgery chose to complete the scale at entry, versus 76% of controls (17). Even with greater use of validated scales in more recent literature, comparability remains difficult with the rare use of the same scale in more than one study.

Procedures that focus on the vaginal canal are marketed to improve sexual function. One of the most controversial female genital cosmetic surgical procedures, vaginal “rejuvenation,” is a proprietary term meant to encompass perineoplasty, vaginoplasty, or both, as a technique to reduce the diameter of the vagina, strengthen the perineal body, and enhance sexual function (18). The surgical technique used is very similar, if not identical, to anterior or posterior colporrhaphy and often is combined with perineoplasty. Another method for treating vaginal laxity, described as vaginal rugation restoration, involves use of the CO₂ laser to create vaginal rugae in women in whom absent or decreased vaginal rugation has been diagnosed. Scant information on the outcomes (risks and benefits) of laser assistance, rugation restoration, or G-spot amplification exists in the peer-reviewed literature, and the published data are mostly restricted to expert opinion, case reports, or small case series (19). A 2012 prospective observational study of vaginal rugation restoration included only 10 women who underwent the procedure, making it difficult to draw conclusions (20). The FDA’s 2018 Safety Communication warned against the use of energy-based devices (commonly radiofrequency or laser) to perform vaginal “rejuvenation,” cosmetic surgical procedures, or nonsurgical vaginal procedures to treat symptoms related to menopause, urinary incontinence, or sexual function (3). Prospective studies that used validated measures of quality of life, body image, and sexual function are needed to understand the true benefits and harms of these procedures. Research should be conducted by those without a financial interest in the outcomes (14).

**Patient Counseling**

Understanding a woman’s motivation for cosmetic surgery requires careful and sensitive exploration to ensure her autonomy and rule out the possibility of coercion or exploitation by another person, such as a partner or family member. See ACOG Committee Opinions No. 578, Elective Surgery and Patient Choice, No. 390, Ethical Decision Making in Obstetrics and Gynecology, and No. 787, Human Trafficking (21–23).

Labiaplasty in girls younger than 18 years should be considered only in those with significant congenital malformation, or persistent symptoms that the physician believes are caused directly by labial anatomy, or both. Surgical alteration of the labia that is not necessary to the health of the patient, who is younger than 18 years, is a violation of federal criminal law (24) (Box 1). At least one half of the states also have laws criminalizing labiaplasty under certain circumstances, and some of these laws apply to minors and adults. Obstetrician–gynecologists should be aware of federal and state laws that affect this and similar procedures in adolescents (1) and adults.

**Box 1. Female Genital Mutilation 18 U.S.C. § 116 (2017)**

(a) Except as provided in subsection (b), whoever knowingly circumcises, excises, or infibulates the whole or any part of the labia majora or labia minora or clitoris of another person who has not attained the age of 18 years shall be fined under this title or imprisoned not more than 5 years, or both.

(b) A surgical operation is not a violation of this section if the operation is—

(1) necessary to the health of the person on whom it is performed, and is performed by a person licensed in the place of its performance as a medical practitioner; or

(2) performed on a person in labor or who has just given birth and is performed for medical purposes connected with that labor or birth by a person licensed in the place it is performed as a medical practitioner, midwife, or person in training to become such a practitioner or midwife.

(c) In applying subsection (b)(1), no account shall be taken of the effect on the person on whom the operation is to be performed of any belief on the part of that person, or any other person, that the operation is required as a matter of custom or ritual.

(d) Whoever knowingly transports from the United States and its territories a person in foreign commerce for the purpose of conduct with regard to that person that would be a violation of subsection (a) if the conduct occurred within the United States, or attempts to do so, shall be fined under this title or imprisoned not more than 5 years, or both.

Obstetrician–gynecologists should have sufficient training to recognize women with sexual function disorders as well as those with depression, anxiety, and other psychiatric conditions. Individuals should be assessed, if indicated, for body dysmorphic disorder, criteria for which, according to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, include a preoccupation with an imagined physical defect or exaggerated concern about a physical defect that would not be apparent to the casual observer, or a history of repetitive or obsessive behaviors (such as repeated examination or attempts to conceal the flaw, or continually seeking reassurance from others) (25, 26). In women who have suspected psychological concerns, a referral for evaluation should occur before considering surgery (27).

In responding to a patient’s concern about the appearance of her external genitalia, the obstetrician–gynecologist can reassure her that the size, shape, and color of the external genitalia vary considerably from woman to woman. These variations are further modified by pubertal maturity, aging, anatomic changes resulting from childbirth, and atrophic changes associated with menopause or hypoestrogenism, or both. Although labia minora longer than 30–40 mm is currently marketed as hypertrophic, in a study of 657 adolescent and adult females, the mean length of the labia minora (measured from clitoris to the lower margin of the labia) exceeded that estimate in more than 50% of the individuals (28). Measurements of the external genitalia must be interpreted on an individual basis, and age-related differences in the length of the labia minora vary widely (28). Table 2 provides information on the variability of female genitalia that can be used to counsel patients; however, the values should not be used to determine surgical appropriateness. Although patients often believe female genital cosmetic surgery will improve sexual function, current evidence does not support improvement in body image, libido, or sexual satisfaction. Concerns regarding sexual satisfaction may be addressed by careful evaluation for any sexual dysfunction, relationship issues, and an exploration of nonsurgical interventions, including counseling. For more information, see Practice Bulletin No. 213, Female Sexual Dysfunction (29).

It is important to review patients’ expectations about the results of surgical intervention. Women should be informed about the lack of high-quality data that support the effectiveness of genital cosmetic surgical procedures and counseled about their potential complications, including pain, bleeding, infection, scarring, adhesions, altered sensation, dyspareunia, and need for reoperation. The possibility of dissatisfaction with cosmetic results, including potential adverse effects on sexual function, also should be discussed.

As for all procedures, obstetrician–gynecologists who perform genital cosmetic surgical procedures should inform prospective patients about their experience and surgical outcomes. Advertisements in any media must be accurate and not misleading or deceptive (30). “Rebranding” existing surgical procedures (many of which are similar to, if not the same as, the traditional anterior and posterior colporrhaphy) and marketing them as new cosmetic vaginal procedures is misleading.

### Training

Obstetrician–gynecologists who perform cosmetic procedures should be adequately trained, experienced, and

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**Table 2. Variability of Female Genitalia***

<table>
<thead>
<tr>
<th></th>
<th>Mean (in mm)</th>
<th>Standard Deviation</th>
<th>Minimum (in mm)</th>
<th>Maximum (in mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width of clitoris</td>
<td>4.62</td>
<td>2.538</td>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td>Length of clitoris</td>
<td>6.89</td>
<td>4.965</td>
<td>0.5</td>
<td>34</td>
</tr>
<tr>
<td>Distance clitoris–urethra</td>
<td>22.63</td>
<td>7.661</td>
<td>3</td>
<td>65</td>
</tr>
<tr>
<td>Introitus opening</td>
<td>27.91</td>
<td>10.36</td>
<td>6</td>
<td>75</td>
</tr>
<tr>
<td>Length of perineum</td>
<td>21.34</td>
<td>8.544</td>
<td>3</td>
<td>55</td>
</tr>
<tr>
<td>Length of labia majora (right)</td>
<td>79.71</td>
<td>15.25</td>
<td>12</td>
<td>180</td>
</tr>
<tr>
<td>Length of labia majora (left)</td>
<td>79.99</td>
<td>15.44</td>
<td>20</td>
<td>180</td>
</tr>
<tr>
<td>Length of labia minora (right)</td>
<td>42.1</td>
<td>16.35</td>
<td>6</td>
<td>100</td>
</tr>
<tr>
<td>Length of labia minora (left)</td>
<td>42.97</td>
<td>16.29</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>Width of labia minora (right)</td>
<td>13.4</td>
<td>7.875</td>
<td>2</td>
<td>61</td>
</tr>
<tr>
<td>Width of labia minora (left)</td>
<td>14.15</td>
<td>7.643</td>
<td>1</td>
<td>42</td>
</tr>
</tbody>
</table>

*Measurements were taken of the clitoral gland, distance from the base of the gland to the urethral orifice, length of introitus, length of perineum, length of labia majora, and length and width of labia minora. Measurements outside of these ranges do not indicate abnormal anatomy.

clinically competent to perform the procedure (31). Extensive familiarity with appearance and function, as well as the ability to manage complications, are expected from obstetrician–gynecologists who perform these procedures.

Conclusion

Obstetrician–gynecologists may receive requests from adolescents and adults for cosmetic genital surgery. For those choosing to provide cosmetic services, patient counseling (including definitions of normal range of anatomy and sexual function), shared decision making, and informed consent are paramount. Patients should be made aware that surgery or procedures to alter sexual appearance or function (excluding procedures performed for clinical indications, such as clinically diagnosed female sexual dysfunction, pain with intercourse, interference in athletic activities, previous obstetric or straddle injury, reversing female genital cutting, vaginal prolapse, incontinence, or gender affirmation surgery) are not medically indicated, pose substantial risk, and their safety and effectiveness have not been established.

References


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