# Surgical Repair of FGM

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**Abstract**
The current WHO classification [1] divides FGM into four different types: type I which refers to the removal of the glans of the clitoris and/or the prepuce, type II which refers to the resection of the labia minora and/or glans clitoris with or without resection of the labia majora. Type III refers to infibulation and type IV refers to all other harmful procedures such as punctures, piercings, incisions, scrapings, and cauterizations. type III is further subdivided by WHO into type IIIa (removal and repositioning of the labia minora) and type IIIb (removal and repositioning of the labia majora). However, within this subdivision it is not mentioned whether the clitoris (the glans) has been damaged or left intact. Therefore, although this classification already offers a basis, a further subdivision of type III mutilations would be interesting. This would include information on the integrity of the glans of the clitoris and clitoris, to offer women who undergo defibulation a complete diagnostic overview and the best therapeutic choice to restore the functionality and aesthetics of one's genitals.

**Keywords**
Clitoral reconstruction, female genital cutting, female genital mutilation, female genital mutilation/cutting, FGM/C, female genital surgery.

## 1. FGM Type III – "Infibulation"

This type of mutilation involves the possible partial or total excision of the external genitalia with suture of the bloody flaps of the labia majora or minora. A consequence of this is that the vulvar vestibule is covered by a scar that hides both the urethral outlet and the vaginal ostium, often reduced to a small hole of a few millimeters for the emission of urine and menstrual flow [2]. Through the defibulation surgery, performed using the laser or, more frequently, scalpel or scissors [3], the scar is opened and the vulvar vestibule, vaginal orifice and urethral meatus are exposed externally together with the possible re-exposure of the clitoris. Subsequently, it is also possible to partially "reconstruct" the labia majora and minora. Deinfibulation is therefore indicated to reduce

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dyspareunia, increase sexual function (facilitating penetration during sexual intercourse), allow normal urination and a physiological outflow of menstrual blood, decrease obstetric risks and the incidence of caesarean sections, episiotomies and lacerations of the perineum. This operation also allows performing medical and surgical procedures (gynecological examinations, monitoring, urinary catheterization, cervical cancer screening, transvaginal ultrasonography, routine gynecological surgery). The operation is anticipated and followed by appropriate counseling with the patient (and possibly with her partner) [2], to whom recommendations for complete psychosexual and physical rehabilitation are exposed, as well as the enunciation of the national regulations in force on the matter of FGM. This last step is an essential moment of dialogue, crucial in laying the foundations for what, potentially, could prove to be solid prevention for future generations.

In countries where FGM is widespread, the request for defibulation is made mainly for two reasons: after marriage, to allow women to have sexual intercourse and, at the time of delivery, to allow birth. In the first case, it is required that the practice be carried out either by the groom, or by a member of the female family, using a blade or a knife. In some communities, the husband is expected to open the vulva of the newlywed through repeated attempts at penetration. After childbirth, however, a new infibulation is often requested, with the aim of closing the vaginal orifice again: the flaps are sewn together again to recreate a small opening, often the same as the one that existed before the wedding. The Royal College of Obstetricians and Gynecologists (RCOG) and the Society of Obstetricians and Gynecologists (SOCG) recommend that physicians offer defibulation to women living with FGM type III while declining requests for reinfibulation.

Defibulation can be performed at any time in the patient's life, during pregnancy (preferably in the second trimester), during delivery or during a cesarean section [4]. The most recent systematic reviews do not show significant differences in outcome between defibulation performed before delivery and those performed during [6]. Therefore, given the lack of evidence, it is recommended that healthcare professionals evaluate the timing of the intervention based on the local possibility of access to healthcare facilities and the patient's choice of when to perform defibulation.

When the operation is performed during pregnancy, it is recommended to perform defibulation in the second trimester, as there is a higher risk of miscarriage in the first trimester and the patient/family may blame the operation for this event [4].

As far as intra-partum deinfibulation is concerned, the opening of the infibulation is indicated in the first phase of delivery for more effective monitoring and simpler insertion of the bladder catheter.

In order to correctly choose when to perform defibulation, the woman must be fully informed on the benefits of this operation. Difficult urination, recurrent genitourinary infections, the impossibility of having sexual intercourse during pregnancy, are problems that are alleviated if deinfibulation is practiced before delivery, and patients should be informed about this [7].

The collection of patient anamnesis should contain in-

formation regarding the type of mutilation suffered and any related physical and/or psychological complications. Urinary, gynecological, and psychosexual symptoms should be investigated through clear, non-stigmatizing, respectful, and culture-sensitive questions. Not all women are aware of having suffered a mutilation and the consequences it implies. Some girls are unaware of the connection between the symptoms they experience and female circumcision, indeed, some conditions are considered positively. Some ethnic groups, for example, consider obstruction and slow urination to be normal, quiet and feminine, whereas fast urination is loud, gross and masculine.

In some areas, infibulation is practiced after childbirth or after rape to restore the anatomy of a "virgin" woman, in order to avoid social exclusion and preserve the possibility of finding a husband. Experiences, meanings and memories regarding FGM vary considerably and health professionals need to be aware of these differences, so as to avoid generalizing and offer treatment as personalized as possible. Some women have suffered FGM from a very young age, so much so that they do not remember or do not know that they have been mutilated; others were operated in a hospital setting, and did not experience severe pain. Others consider these practices as normal, usual and as rites that serve to make them beautiful, pure and marryable. Some, in contrast, recall a sense of betrayal, fear and pain associated with these rituals, so much so that they can develop depression, anxiety and post-traumatic stress disorder.

Many of the women subjected to FGM experience other traumatic events, such as rape, forced marriage, war and violence during periods of migration. When defibulation surgery is proposed, the healthcare professional should be aware that operative and post-operative pain could lead to the memory of past traumatic events. This is why current guidelines recommend psychological support for patients about to undergo surgical treatment for FGM.

The pre-operative briefing is essential to describe the defibulation surgery and the post-operative follow-up, but also to welcome the expectations, fears and doubts of the patient and her partner. Defibulation represents an important cultural, anatomical, physiological and body image change. For this reason it may happen that the woman needs to reflect before accepting the operation.

To carry out a complete briefing it is necessary to:

- Give information on the anatomy and physiology before and after the operation:
- Ask about any beliefs about FGM and any fears/doubts about defibulation.
- Debunk false cultural myths.
- Give information on the concept of "virginity": explain that defibulation does not affect "virginity".
- Explain that defibulation does not widen the vaginal orifice, but only eliminates the scar that covers it, which is the cause of incorrect hygiene due to stagnation of urine and menstrual blood.
- Explain that urine and menstrual blood come out of two different orifices.
- Use understandable drawings and explanations.
- Inform about the physiological color of the vaginal mucosa, which will be clearly visible after defibulation,

since the pink of the mucosa contrasts with the dark color of the skin.
- Inform about the increased speed of urine and menstrual flow after defibulation.
- Explain the anatomy and function of the clitoris before and after defibulation surgery.
- Give information about the procedure.
- Explain the indications and benefits of defibulation.
- Give details of the surgical procedure, follow-up and possible complications.
- Inform the patient on how to perform local hygiene, which painkillers to take, how to avoid spontaneous adhesion of the lips, which post-operative checks she will have to perform, on the presence of sutures/absorbable stitches, how long it is necessary to abstain from sexual activity before full recovery.
- Give information regarding anesthesia, after discussion with the anesthetist.
- Reassure that the intra- and post-operative pain of defibulation is not as severe as that experienced for infibulation.
- During pregnancy, discuss the appropriate time to perform the surgery.
- Give the patient the opportunity to choose whether to perform the operation during pregnancy or during childbirth.
- Give time for reflection before the operation.
- Deliver informed consent.
- Have the informed consent signed.

In case of language barriers, it is necessary to contact an interpreter or a cultural mediator who ensures effective communication and understanding of the information. For cultural reasons, some girls/women may refuse to have an interpreter. The solution is to choose an interpreter selected by the patient or to use alternative means of translation (telephone).

If the girl requests it, her partner or other family members can participate in the debriefing.

Communication between healthcare professionals and women represents a central point for the success of psychophysical rehabilitation: it is important that the woman does not have a traumatic experience of the new reality, and that this does not appear completely different to her, even with respect to the perceptive acquisitions of the past. For these reasons, the explanation of how the vulva will appear post-operatively, how the excretion of urine will vary in terms of jet and sound, of the new sexuality that it will be about to experience, is of fundamental importance. It may be useful to use multimedia databases on the physiological structure of the vulva such as, for example, The Labia Library (www.labialbrary.org.au). Furthermore, always with a view to making the change process as smooth as possible and without difficulties, the support and involvement of the partner plays a primary role.

As already analyzed previously, FGM is accompanied by obstetric risks such as the increased incidence of caesarean sections, post-partum haemorrhages and the use of episiotomies.

A systematic review conducted in 2017 [6] demonstrated that deinfibulation is associated with a reduction in the likelihood of cesarean delivery and post-partum hemorrhage. Compared with uncut women, women who underwent defibulation did not increase the likelihood of prolonged labor, genital tract tears, bleeding, lower Apgar scores, or longer

maternal hospitalization. Taken together, these results highlight the potential benefits of defibulation surgery.

As far as the choice of the best moment to proceed with defibulation in pregnant women is concerned, the literature presents some critical issues in giving an unambiguous answer and, consequently, precise indications. The intervention can take place in the pre-conceptional period, ante-partum or intra-partum.

A literature review aimed at seeking the best indications regarding the timing of deinfibulation concluded that there is currently no evidence of a difference between ante-partum and intra-partum deinfibulation. However, although the results do not show statistically significant differences, if the ante-partum infibulation were performed, the woman would be given the necessary time to heal before giving birth, getting used to her new body image. When the surgery is done during labor, it is usually in the second stage (when the baby's head is moving down the birth canal). The decision regarding the need for a mediolateral episiotomy must be considered after the removal of the adhesions: it is practiced with a view to reducing tension on a tissue with a decidedly reduced degree of distension given the extension of the cicatricial process. For these reasons, sometimes bilateral episiotomies are necessary, proceeding with the foresight to avoid cuts in the midline which could give rise to or worsen pathologies (perhaps already chronicled) such as incontinence or the onset of fistulas due to anorectal trauma. In some cases, defibulation may be necessary in the first stage of labour, or to allow the induction of labor and, in this case, it can be performed with local anesthesia.

However, there are critical factors to be taken into consideration when deciding the timing of the intervention.

1. Woman's Preference: Women should be consulted about their preferences. For example, if a woman places great importance on post-operative cosmetic results, ante-partum deinfibulation should be preferred to allow for adequate healing time and optimal cosmetic results.
2. Access to health facilities: in contexts where women may encounter involuntary delays while reaching healthcare facilities due to difficult access (e.g. in contexts wherethey are alone, without relatives who can accompany them or keep the other children, and in case of barrier linguistic), it should be the ante-partum deinfibulation.
3. Place of birth: given that the intervention must be carried out by a qualified healthcare professional, in contexts where home births are frequent, ante-partum defibulation must be preferred. The same is true for contexts where the healthcare facility has a high patient load and understaffing.
4. Healthcare professional skill level: Anatomical conditions such as tissue edema and sprain during labor can create challenges for inexperienced professionals performing intra-partum de-infibulation. In this case, ante-partum defibulation should be preferred. In environments with experienced and well-trained professionals, intra-partum defibulation may be considered an acceptable procedure.

## 2. Surgical Techniques

Deinfibulation is the surgical intervention that can be

proposed to women suffering from type III genital mutilation (infibulation).

Type III mutilations vary according to the type of vulvar damage, whether there is excision of the clitoris, apposition of the labia minora (IIIa) and/or labia majora (IIIb). The infibulation scar can be more or less adherent to the deeper tissues: it is therefore useful to inspect and palpate the wound. The clitoris or what remains of it may be more or less visible. Depending on the size of the orifice, a probe or finger is inserted below the scar to evaluate the underlying tissue for adhesions. If the width of the vaginal orifice allows it or if sexual intercourse with vaginal penetration has been carried out, it is possible to carry out the examination with the speculum.[3] The patient's medical record should contain all clinical findings together with a photo of the external genitalia (subject to the patient's consent).

WHO guidelines recommend applying anesthesia during defibulation. It is practiced under local, regional or general anesthesia, depending on the place where it is performed, the resources available and the choice of the woman and the surgeon. In the case of local anesthesia, 1 to 2 ml of 1% lidocaine is injected along the incision scar, a thick layer of 2.5% lidocaine or 2.5% prilocaine cream is applied to the same area by 1 to 5 hours before the injection. General anesthesia is delivered via laryngeal mask.

Deinfibulation can be performed on an outpatient basis with local anesthesia or in day surgery with spinal or general anesthesia.

A complete recovery is obtained in 3-4 weeks, it is therefore necessary to abstain from sexual intercourse during that period. Possible postoperative complications may be minimal bleeding and injury to the urethra and clitoris, infection of the surgical wound, spontaneous adhesion of the labia (especially in the upper part of the surgical incision), and urinary infections. Spontaneous adhesion of the lips generally occurs in the first 7-10 days after the operation. It is therefore necessary to inform the patient on how to perform local hygiene of the vulva and lips (at least 3 times a day) to avoid adhesion. In case of spontaneous adhesion of the lips from the seventh postoperative day, it is necessary to remove the adhesion by applying local anesthesia with the application of a cream based on lidocaine 2.5% and prilocaine 2.5%, or by injection of 1% lidocaine. Prescribe pain relievers (e.g. paracetamol and ibuprofen) if needed. Good hydration and urinating under a stream of water can relieve the burning sensation caused by passing urine over the wound.

Post-operative follow-up visits must be scheduled, one week and one month after surgery, to examine the state of the vulva and discuss the physiological changes (e.g. urination) and the sensations experienced. In intra-partum defibulation, some complications may occur for obstetric reasons and not for the operation itself; these differences should be explained to the patient. Incontinence and other pelvic floor complications must be treated appropriately. The pain also reduces the risk of caesarean sections.

## 3. Complications

According to recent systematic reviews, women undergoing defibulation experienced minor symptoms, such as wound infections, urinary tract infections, and spontaneous lip adhesions.[9] Other complications may include lesions of

the urethra or residual clitoris, irregularities of the labia after surgery and lesions of the fetal head if the surgery is performed during labor.

If defibulation is performed under local anesthesia, some women report of having experienced the trauma of the mutilation again [10].

## 4. Clitoral Reconstruction

Clitoral reconstruction (CR) has been the subject of several studies in recent years, mainly in the medical field. Women with female genital mutilation seek clitoral reconstructive surgery to improve their sexual well-being, but also because of the altered body and self-image due to FGM. For some women, performing defibulation alone does not satisfy the need to obtain an improvement in clitoral sensitivity and the restoration of an anatomical appearance as normal as possible. With regard to clitoral reconstruction and the growing demand for this practice, both the WHO guidelines and those of the Royal College of Obstetrics and Gynecologists do not recommend this type of intervention due to the lack of evidence on its real efficacy and potential complications, while other publications have demonstrated an advantage of surgical reconstruction of the clitoris [7-22]. CR consists in removing the cutaneous and periclitoral scar of genital mutilation, re-exposing the body of the clitoris in a more accessible and visible position. CR can be performed for several reasons such as spontaneous or provoked clitoral pain, superficial dyspareunia, cosmetic reasons, psychosocial reasons and sexual dysfunctions related to FGM. CR should, in essence, support women with FGM in rebuilding their body image and improve their relationship with their body and sexuality, but currently there are no solid recommendations in support of CR from major scientific societies.

At present, it is not possible to guarantee to what extent clitoral reconstruction can be considered advantageous for every woman, but it can certainly be offered in appropriate settings to women who request it, after adequate counseling.

In women with chronic vulvar pain pre- and post-defibulation, the possible presence of cysts, neuromas, bridles or adhesions should be considered and these should be treated surgically in case of sexual dysfunction or associated pathologies.

The presence of vulvodynia must also be taken into consideration, and these women must be referred to multidisciplinary centers that can take care of the patient for all areas of the sexual and reproductive sphere [27].

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