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**APPLICATIONS FOR EPISIOTOMY SCAR AND
POST PARTUM STRIAE**

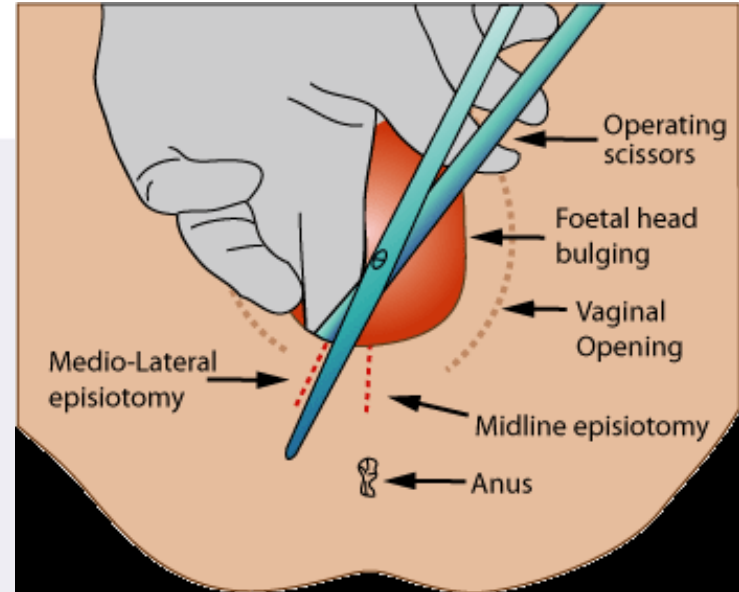
Episiotomy Scar Reduction

Episiotomy (perineotomy)

An episiotomy is performed to widen the vaginal opening during birth and it consists of an incision made in the perineum (the tissue between the vaginal opening and the anus) during the second stage of labour – the pushing stage.

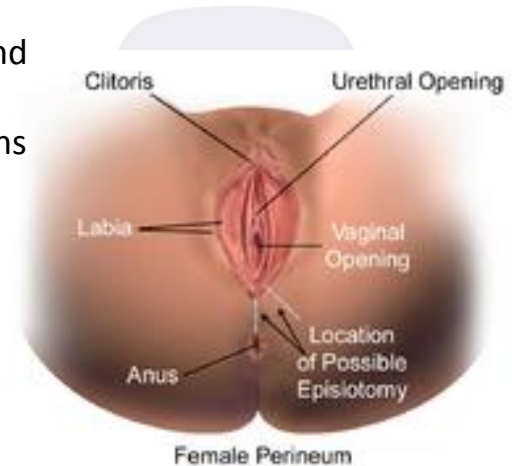
When Episiotomy is needed?

- #1: True Fetal Distress
- #2: Natural Tears Occurring Towards The Urethra
- #3: When A Forceps Or Vacuum Assisted Birth Become Necessary



Episiotomy Scar

- 1-Scar results as part of Episiotomy healing process
- 2-Fibrotic tissue reaction as consequence of cut and stitching (Red/white).
- 2-Occasionally, dense scar tissue can cause prolonged pain, pain with intercourse and even painful bowel movements.
- 3-Patient's report more painful intercourse and insufficient lubrication 12–18 months after birth although they do not show problems with orgasm or arousal.
- 4-Topical oils or ointments, physiotherapy with a pelvic specialist, and in extreme cases, another surgical procedure may help to reduce pain



Therapeutical Approach

- 1-Assessing type of Scar
- 2-Determine the proper Wavelengths to be used
- 3-Define a course of treatment to target the problem in the fastest and less troublesome way
- 4-Clinical procedure (Including EMLA)
- 5-Post-Op Care

Episiotomy Scar Selection per type

Red Scar type: Protocol performed including PDL and Fractional CO₂ Laser machines

White Scar type : Protocol performed by Fractional CO₂ Laser machine.

Scar Treatment Protocol

Power: **8W**

Stack: **2**

Dwell time: **600μsec**

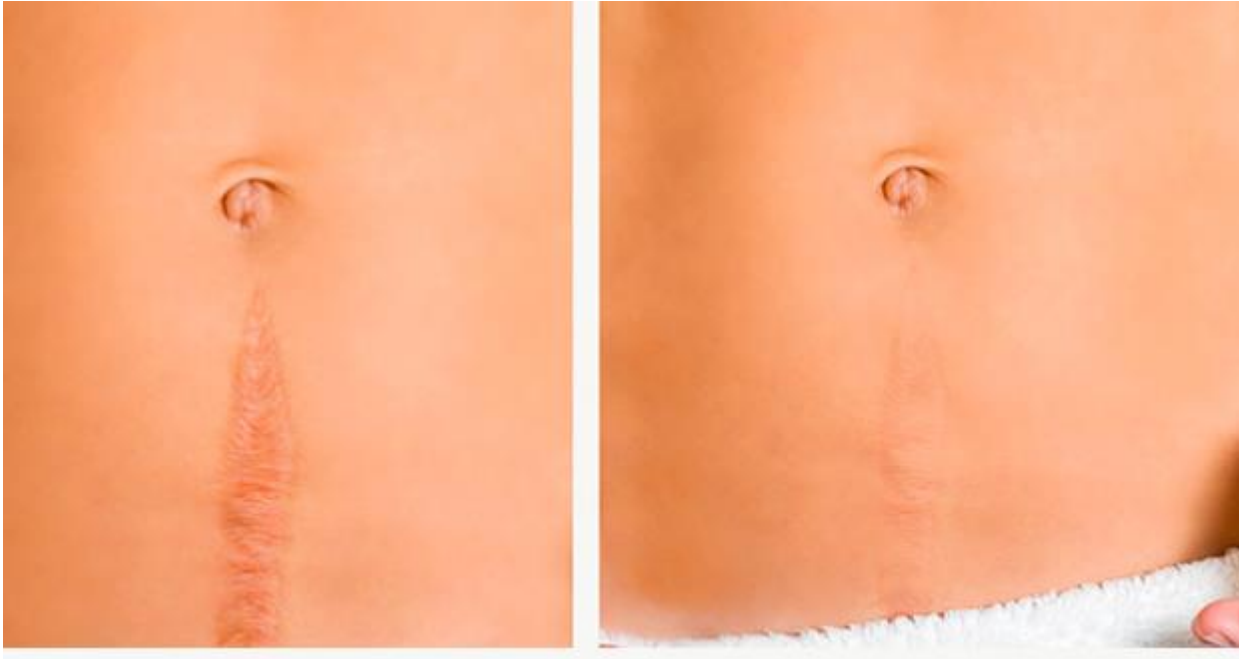
Spacing: **600μm**

Selected Pulse: **DP**

Mode of Emission : **Single Pulse**

AVG Session Number: **4 (Patient depending)**

Technique: **Fractionated Laser shots within the lesion boundaries with no interest over the surrounding Tissue .**





Episiotomy Scar Bibliographic References

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Post Partum Striae

Stretch Marks - Striae gravidarum - Striae

Narrow streaks or lines that occur on the surface of the skin.

They are often red or purple to start with, before gradually fading to a silvery-white colour.

They're usually long and thin.

When Do Stretch marks occur?

During [pregnancy](#)

After rapid weight gain

During [puberty](#)

Family history of stretch marks

Cushing's syndrome or [Marfan syndrome](#)

After prolonged or inappropriate use of corticosteroid medication



Striae gravidarum rubrae. Contributed by DermNetNZ
<https://www.ncbi.nlm.nih.gov/books/NBK436005/figure/article-29544.image.f1/>

What's Stretch mark is

Causes of Stretch Marks

Rapid stretch of Skin as a result of sudden growth or weight gain.

The dermis elastic fibers gets extremely teared to break , allowing the deeper skin layers to show through, forming stretch marks.

The tears in the dermis allow the blood vessels below to show through, which is why stretch marks are often red or purple when they first appear.

When the blood vessels eventually contract (get smaller), the pale-coloured fat underneath your skin will be visible, and your stretch marks will change to a silvery-white colour.

Pregnancy Striae

Striae gravidarum are usually caused by hormonal changes that affect your skin. Gaining pregnancy weight steadily may help minimize the effect of stretch marks.

Some people find having stretch marks distressing and psychological aspects should be considered.

Organizations, such as Changing Faces and the British Association of Skin Camouflage may also be useful sources of help and support.

<https://www.bellybelly.com.au/birth/when-is-an-episiotomy-necessary/>

<https://www.nhs.uk/conditions/stretch-marks/>
https://en.wikipedia.org/wiki/Stretch_marks/

What's Stretch mark is

Applicable Treatments

Camouflage, Creams, gels and lotions

OTC available. To apply on small striae.

Very low efficacy especially in removing stretch marks.

Mostly Skin Moisturizers to be applied over red or purple Striae.

Laser therapy

As most efficient option Laser therapy can help to fade them consistently and make them less noticeable.

Proper wavelength selection is advisable.

Pulsed dye laser and CO2 Lasers as eligible wavelengths.

Still not wide available on NHS (it has a cost) and a few sessions are needed.

Cosmetic surgery

Expensive and rarely recommended.

No available on the NHS. No risk free and may cause considerable scarring.

Striae Gravidarum Laser Treatment

Therapeutical Approach

- 1-Assessing type of Striae
- 2-Determine the proper Wavelengths to be used
- 3-Define a course of treatment to target the problem in the fastest
And less troublesome way
- 4-Clinical procedure (Including EMLA)
- 5-Post-Op Care



Striae Gravidarum Selection per type

Red Scar type: Protocol performed including PDL and Fractional CO₂ Laser machines

White Scar type : Protocol performed by Fractional CO₂ Laser machine.



<https://www.medicalnewstoday.com/articles/283651.php>



<https://www.slideshare.net/kazioly/pregnancy-lec>

Striae Gravidarum Treatment Protocol

Power: **8W**

Stack: **2**

Dwell time: **600 μ sec**

Spacing: **600 μ m**

Selected Pulse: **DP**

Mode of Emission : **Single Pulse**

AVG Session Number: **4 (Patient depending)**

Technique: **Fractionated Laser shots over the Striae and the surrounding Tissue to push dermal stimulation and consequent replenish of the lesion.**



B&A Pictures



<http://howtogetridofstretchmarks.org/author/admin/>

B&A Pictures



<https://www.rtwskin.co.uk/fat-and-cellulite-reduction/stretch-marks-removal/>

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Vulvar Rejuvenation Treatments (Various)



Vulvar Relaxation

Laxity : Chronological and Lack of Hormones reasons.

Reduced Hormones production.

Less Elasticity and Tone.

Change in the texture and color (whitish).

Depigmentation and pubic hair rarefaction may appear .

Labia majora to get flat, wrinkled and reduced in size

When Vulvar Relaxation may occur?

After Both Natural or Medically induced Menopause

After Heavy weight reduction

Pregnancy / Breast feeding phase

After Trauma events (Epithelial inclusion cysts)

Surgical reasons (Both Medical or Aesthetic)



<http://contemporaryobgyn.modernmedicine.com/contemporary-obgyn/news/vulvar-lesions-72-year-old-woman>



Vulvar Treatments - Tightening

Applicable Treatments

Creams, gels and lotions

Vitamin E based creams. To apply topically over the entire area .

Mostly Moisturizing and hydrating the Vulva.

1% Testosterone Cream (daily application)

Cosmetic supports (Henné)

Laser therapy

As most efficient option Laser therapy can help to rejuvenate the tissue as a whole and fading unesthetic formations.

Proper wavelength selection is advisable.

CO2 Lasers as eligible wavelength.

Topical Anesthetic required.

A few sessions are needed.



Vulvar Treatments - Tightening

Therapeutical Approach

- 1-Assessing type of intervention to perform.
- 2-Determine the proper Wavelengths to be used
- 3-Define a course of treatment to target the problem in the fastest
And less troublesome way
- 4-Clinical procedure (Including EMLA)
- 5-Post-Op Care





■ Technique



Vulvar (Straight) Hand-piece

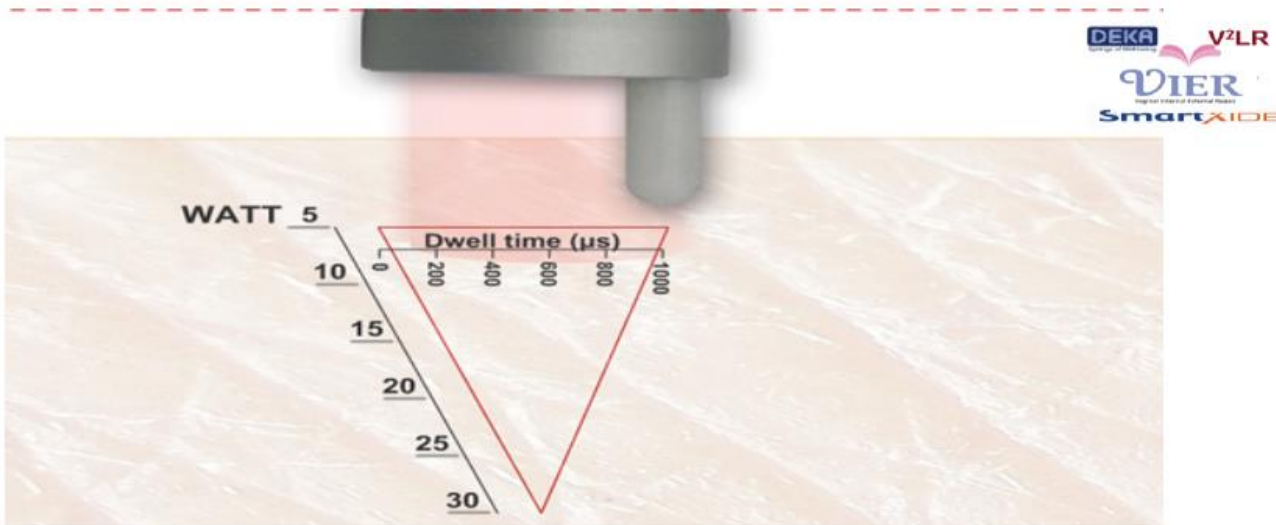


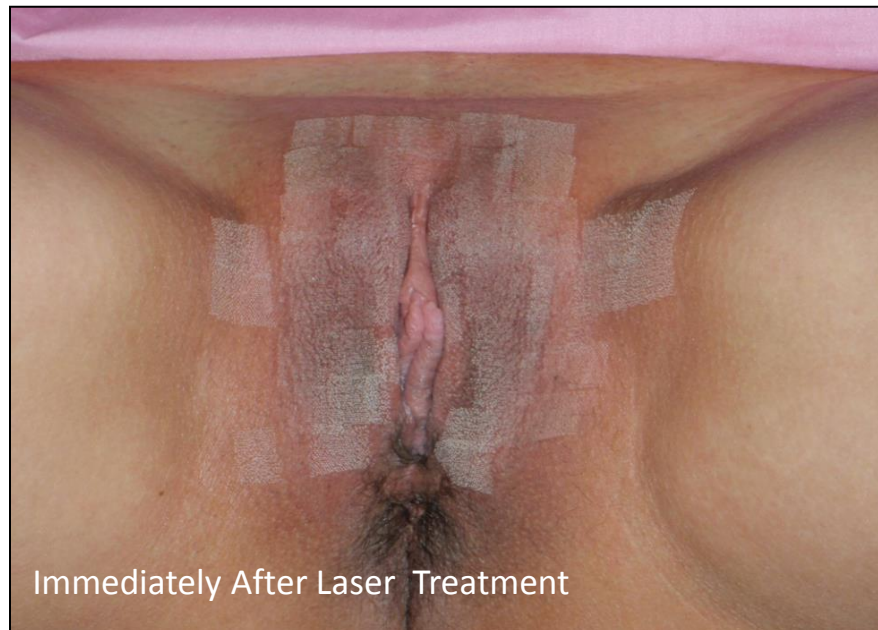
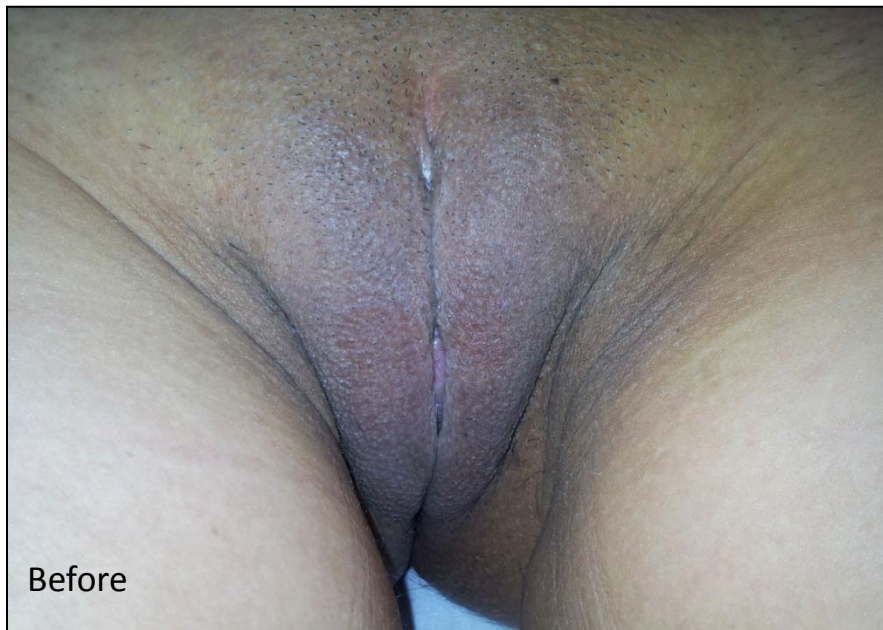


Vulvar Treatments - Tightening

- The protocol**

WATT	DT	SPAC	STACK	PULSE
18	400	500	2	DP







Vulvar Treatments





■ General Causes

- (PIH) Post Inflammatory Hyperpigmentation
 - Minociclin, amiodarone
 - Addison, Nelson
 - Haemochromatosis
 - Sun Exposure
- Insulin Resistance SOA Acanthosis nigricans
 - Weight Changes
 - Pregnancy
 - Race
 - Costumes





■ Vulvo Perineal .

- Physiologic Hyperpigmentation
 - Benign and malignant tumors
 - Chronic simple Lichen
- Drug related Hyperpigmentation
 - Temperature
 - Tight clothes and underwear
 - Heavy menses (FE ++)



Genital Warts



Genital Warts

-Contagious, fleshy growths in the genital or anal area
(*solid blister or a small cauliflower look*).

Known also as venereal [warts](#) or condylomata acuminata.

Genital warts consist of fibrous overgrowths covered by a thickened, outer layer. They can appear around a woman's vulva, cervix, vagina, or anus.

They are usually benign, or non-cancerous, but some types can become cancerous in time.

When Genital Warts may occur?

They are caused by the [human papillomavirus](#) (HPV), and they are a symptom of HPV.

The biggest risk factor for genital warts is unprotected sex. Genital warts often appear about 3 months after infection. However, in some cases, there may be no symptoms for many years.



<https://www.medicalnewstoday.com/articles/155236.php>



Applicable Treatments

Topical medication: This may be administered at home or in a clinic.

Cryotherapy: Often with liquid nitrogen so to cause a blister around the wart.

Electrocautery: An electric current is used to destroy the wart, generally under local anesthetic.

Surgery: The wart is excised, or cut out. A local anesthetic will be used.

Laser therapy

Destroys the wart with more than one treatment .

Treatments are not generally painful.

Proper wavelength selection is advisable.

CO2 Lasers as eligible wavelength.

Topical Anesthetic required.

A few sessions are needed.



Therapeutical Approach

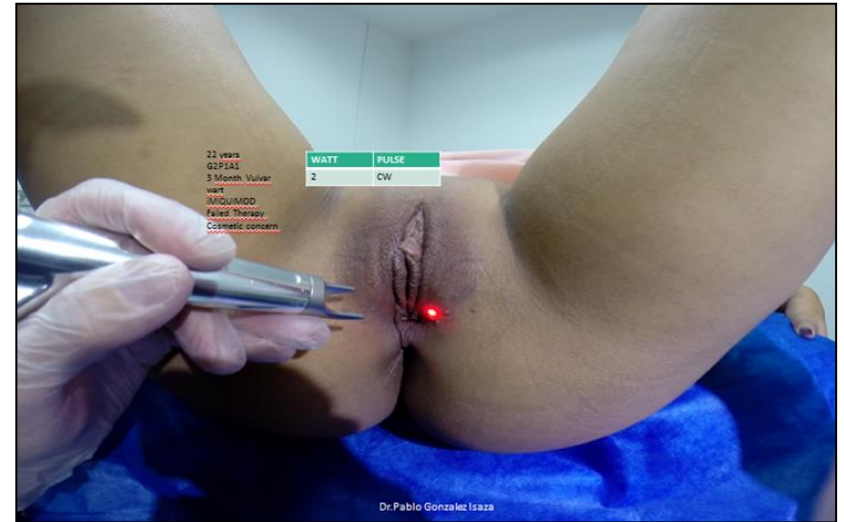
- 1-Assessing type of wart to treat.
- 2-Determine the proper Wavelengths to be used
- 3-Define a course of treatment to target the problem in the fastest
And less troublesome way
- 4-Clinical procedure (Including EMLA)
- 5-Post-Op Care





Genital Warts Vaporization Protocol

WATT	DT	SPAC	STACK	PULSE	RF
15	80 HZ			SP	





Before



After



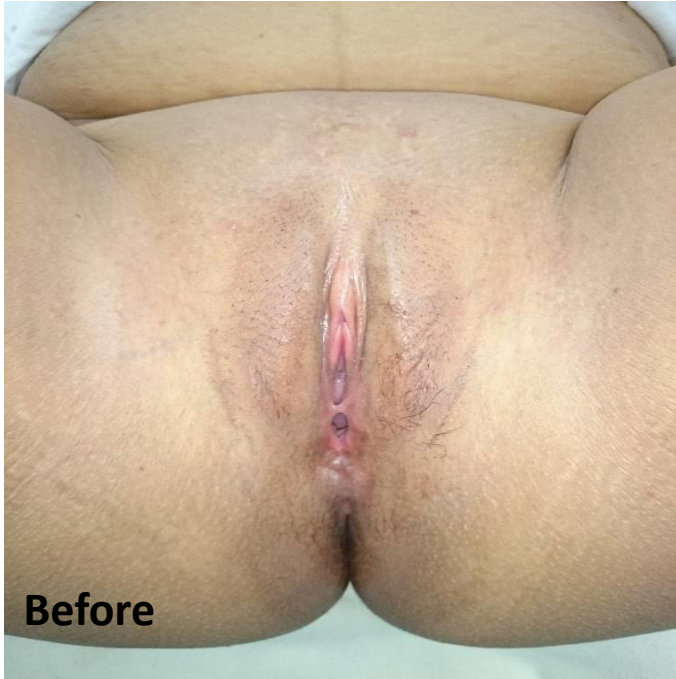
Genital Sinequiae



Vulvar Sinequiae Protocol

WATT	DT	SPAC	STACK	PULSE	RF
6	80 HZ			SP	

Vulvar Treatments – Sinequiae



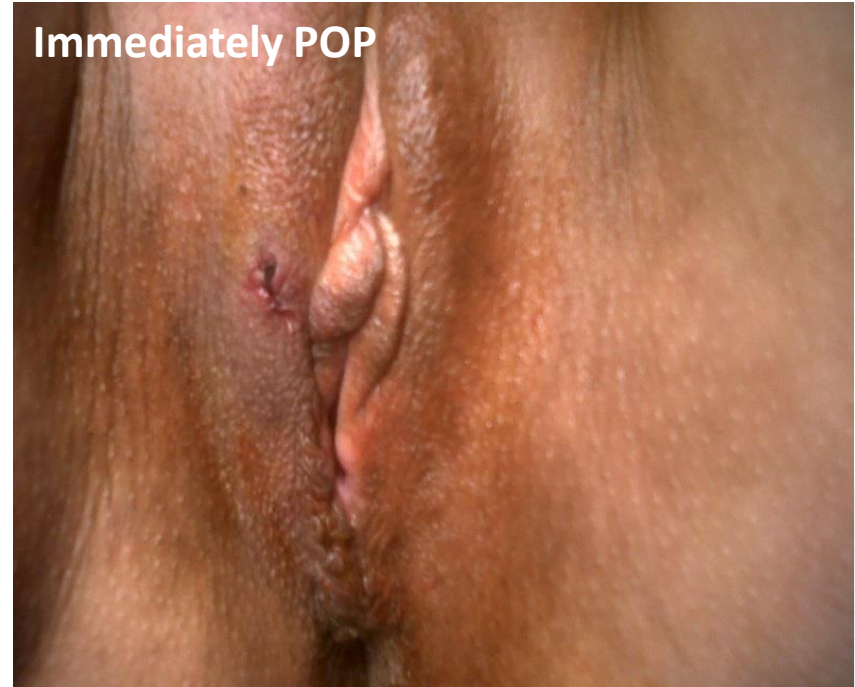


Vulvar Cysts



Vulvar Cyst Protocol

WATT	DT	SPAC	STACK	PULSE	RF
8	100			SP	





Lichen Sclerosus



Lichen Sclerosus

Inflammatory Chronic- relapsing disease mostly affecting the vulva skin and the skin around the anus.

Macular or Plaque-like structure.

It can start in child or adulthood and affect girls or women of any age.

When Do Lichen Sclerosus occur?

Cause is not fully understood.

Felt to be a type of autoimmune condition in which the person's immune system reacts against the skin.

Sometimes it is associated with other diseases .

It is not contagious.

<http://www.bad.org.uk/library-media/documents/Lichen%20Sclerosus%20Update%20Jan%202014%20-%20Lay%20reviewed%20Nov%202013.pdf>



<http://www.tragermd.com/contents/services/lichen-sclerosus/pediatric-vulvar-lichen-s>



Causes

The exact cause of lichen sclerosus isn't known. An overactive immune system or an imbalance of hormones may play a role. Previous skin damage at a particular site on your skin may increase the likelihood of lichen sclerosus at that location.

Lichen sclerosus isn't contagious and cannot be spread through sexual intercourse.

Lichen sclerosus often occurs in postmenopausal women, but also in men and children. In women, lichen sclerosus usually involves the vulva. In boys and men, uncircumcised males are most at risk, because the condition generally affects the foreskin.

In children, the signs and symptoms may improve at puberty.

Symptoms

Itching (pruritus), which can be severe

Discomfort or pain

Smooth white spots on your skin

Blotchy, wrinkled patches

Easy bruising or tearing

In severe cases, bleeding, blistering or ulcerated lesions

Painful intercourse



Vulvar Treatments – Lichen Sclerosus

Applicable Treatments

Corticosteroids

Corticosteroid ointments or creams are commonly prescribed and applied from a daily routine to twice a week basis. The Doctor will monitor for side effects (further thinning of the skin).

Other treatment options

If corticosteroid treatment doesn't work or they are needed for long time:

- Immune-modulating medications, such as tacrolimus (Protopic) and pimecrolimus (Elidel)
- Ultraviolet light treatment, for nongenital areas
- Topical sex hormones have been used in the past to treat lichen sclerosus, but recent research suggests that these medications aren't effective.
- Laser Treatment



Vulvar Treatments – Lichen Sclerosus

Therapeutical Approach

- 1-Assessing type of Lichen
- 2-Determine the proper Wavelengths to be used
- 3-Define a course of treatment to target the problem in the fastest
And less troublesome way
- 4-Clinical procedure (Including EMLA)
- 5-Post-Op Care



Power: **24W**

Stack: **1**

Dwell time: **500μsec**

Spacing: **500μm**

Selected Pulse: **DP**

Mode of Emission : **Single Pulse**

AVG Session Number: **2 (Patient depending)**

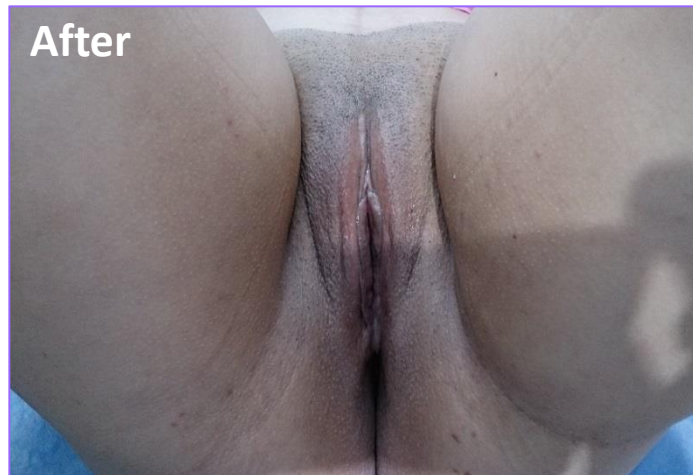
Technique: **Fractionated Laser shots over the Area and the surrounding Tissue to push dermal rejuvenation and consequent healing of the lesion.**



<http://www.dermis.net/dermisroot/en/51431/image.htm>



Vulvar Treatments – Lichen Sclerosus B&A Pictures



*August 2013
45 Years - Poor Response Steroid Therapy
2 Sessions 6 week*

Lichen Sclerosus Bibliographic References



Vulvar Treatments – Lichen Sclerosus

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Vulvar Treatments – Lichen Sclerosus

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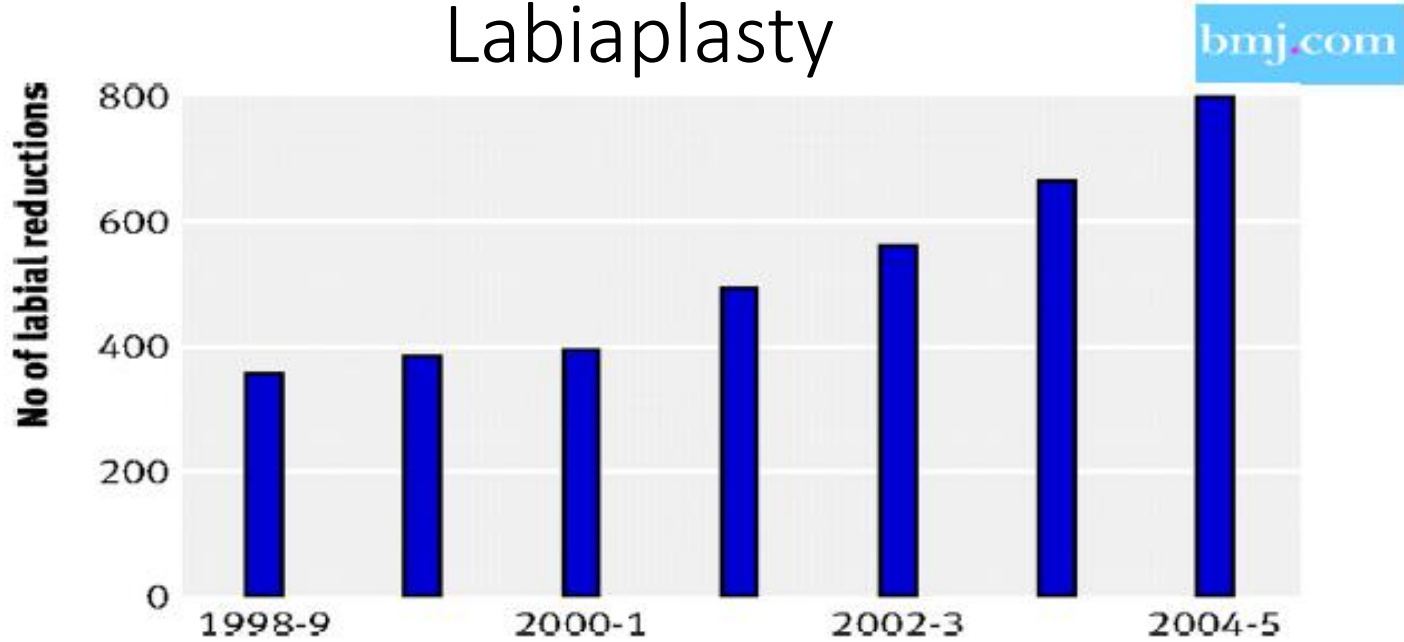


Labioplasty





Labioplasty





Female Genital Cosmetic and Plastic Surgery: A Review

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ABSTRACT

Introduction. This review studies rationale and outcome of vulvovaginal aesthetic surgery.

Aim. Discuss procedures designed to alter genital appearance and function; investigate sexual, philosophical, and ethical issues; examine outcomes.

Methods. (i) Medline search of the existing literature utilizing terms labiaplasty, clitoral hood reduction, hymenoplasty (HP), vaginoplasty (VP), perineoplasty (PP), female genital surgery, sexual satisfaction/body image, and anterior/posterior colporrhaphy; (ii) references from bibliographies of papers found through the literature search and in the author's reading of available literature.

Main Outcome Measures. (i) Demographics and psychosexual dynamics of women requesting female genital plastic/cosmetic surgery; (ii) overall and sexual satisfaction of subjects undergoing these procedures.

Results. The majority of studies regarding patient satisfaction and sexual function after vaginal aesthetic and functional plastic procedures report beneficial results, with overall patient satisfaction in the 90–95% range, sexual satisfaction over 80–85%. These data are supported by outcome data from nonelective vaginal support procedures. Complications appear minor and acceptable to patients. There are little data available regarding outcomes and satisfaction of HP, or function during the rigors of subsequent vaginal childbirth, although the literature contains no case reports of labiaplasty disruption during parturition.

Conclusion. Women requesting labiaplasty and reduction of their clitoral hoods do so for both cosmetic and functional (chafing, interference with coitus, interference with athletic activities, etc.) reasons, while patients requesting VP and/or PP do so in order to increase friction and sexual satisfaction, occasionally for aesthetic reasons. Patients appear generally happy with outcomes. The majority of patients undergoing genital plastic surgery report overall satisfaction and subjective enhancement of sexual function and body image, but the literature is retrospective. Female genital plastic surgery procedures appear to fulfill the majority of patient's desires for cosmetic and functional improvement, as well as enhancement of the sexual experience. Little information is available regarding HP outcomes. **Goodman MP. Female genital cosmetic and plastic surgery: A review. J Sex Med **;*:**--**.**

Key Words. Labiaplasty; Labial Reduction; Labial Hypertrophy; Vaginoplasty; Perineoplasty; Vaginal Rejuvenation; Vaginal Tightening Procedures; Clitoroplasty; Clitoral Hood Reduction; Hymenoplasty; Hymenorrhaphy; Female Genital Plastic Surgery; Female Cosmetic Genital Surgery; Vulvovaginal Aesthetic Surgery; Prevalence of Sexual Dysfunction; Sexual Function after Vaginal Support Procedures; Sexual Satisfaction and Body Image

LabiaPlasty Demand

Table 1 Patient's indications for labia and/or clitoral hood revision surgery

Indications>> Author/# LP patients	"Aesthetic"	"Self-esteem" ("Feel more normal")	"Functional" (discomfort with clothes, activities, coitus, etc...)			At urging of sexual partner	Combined aesthetic and functional
Rouzier et al. [8] (# 163)	87%		Discomfort in clothes 64%	Discomfort with exercise 26%	Entry dyspareunia 43%		
Pardo et al. [21] (# 55)							67%
Miklos & Moore [20] (# 131)	37%		32%				31%
Goodman et al. [30] (# 211)	55.4%	35.5%	75.3%			5.3%	
Alter [33] (# 407)		93%	95%				71%



CO₂ Laser Labioplasty Lateral Thermal Damage LTD

ENERGY SOURCE	THERMAL LATERAL DAMAGE PATHOLOGY REPORT
Monopolar ElectroCauterium	6 MM
Radiofrequency (conization loops)	5 MM
Harmonic Scalpel	4 MM
Diode Laser	3 MM
CO2 Laser	1 MM



Labioplasty Protocols	Step 1	Step 2	Step 3
Evaluation	Decide the exedent skin amount to remove and the surgical incision line	Trace with a marker the incision line	Sterilize the incision area with a non alcoholic solution
Laser Incision (3 pass)	HP mode 5 Watt focalize	HP mode 5 watt in defocus mode to coagulate	HP mode 5 watt in focalize mode.
Suture	Decide the suture type and mode in agree with the bleeding and the margin of the lesion	Continous suture with Vicryl 5.0 Separate suture with 5.0 Vicryl	
Post Treatment Care	Ice Antibiotic tablet Gentamicin Oinment	After 7 days Idratation cream	Follow up 30 days after



HyperTrophic Labia Minaora



Normal Vulva



Hypertrophic Labia Minora

CLASSIFICATION: * Talita Franco (1993):

- Type I.....Less than 2 cm - Type II..... From 2 to 4 cm

- Type III.....From 4 to 6 cm - Type IV.....More than 6 cm





Laser Reduction Labiaplasty Procedure



Before



After

Labioplasty Bibliographic References



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