

Labial adhesions

The external female genitals include the labia majora (larger outer lips) and the labia minora (smaller inner lips). Generally, the two labia minora lie on either side of the vagina and urethra and only intersect at the clitoris. 'Labial adhesions' means that the labia minora have stuck together.

This common condition affects up to two per cent of girls aged three months to six years. It is most common in those aged one to two years. It is thought to be caused by irritation to the delicate membranes of the external genitals. In most cases, labial adhesions resolve by themselves during the onset of puberty without the need for medical treatment.

Occasionally, the labia may stick along their entire length and interfere with the child's ability to empty her bladder properly. Medical treatment is then needed. Labial adhesions don't affect the child's future fertility, sexual function or menstrual cycle. The condition is also known as fused labia.

Symptoms

The symptoms of labial adhesions can include:

- The inner lips are joined together.
- The condition is usually painless.
- There may be some vulval soreness in some cases.
- Dribbling urine after going to the toilet may be a problem.
- There may be some vulval soreness after urinating in some cases.
- In severe cases, there may be an inability to pass urine.

A range of causes

The exact cause is unknown, but it is strongly suspected that labial adhesions are caused by irritation to the external genitals. The range of possible irritants include:

- Faeces
- Urine
- Strongly perfumed soaps
- Bubble baths
- Inflammatory conditions such as vulvitis
- Atopic dermatitis
- Pinworms
- Labial injuries
- Sexual abuse.

The labia fuse together

The outer skin surface (squamous epithelial layer) of the labia minora is thin and delicate. Irritation and inflammation can cause the outer skin to become exposed and raw. The two raw lips then heal together in much the same way as any skin cut might heal. Usually, the labia start to fuse at the bottom end (posterior fourchette), closest to the anus, and work up towards the clitoris.

Labial adhesions are more common during the nappy years. Poor hygiene is thought to be a common cause in older girls. Low oestrogen levels (hypo-oestrogenism) are also thought to contribute to the development of labial adhesions. The condition resolves during puberty because the effect of the female hormone oestrogen changes the cells that line the genitals.

Possible complications

Some of the possible complications of labial adhesions include:

- **Urination problems** - such as changes to the direction of the urine stream (for example, the urine may squirt sideways instead of straight down) and dribbling urine after going to the toilet (because a small amount of urine collects within the fused labia).
- **Urinary tract infections** - about 20 per cent of girls with labial adhesions develop asymptomatic bacteriuria (bacteria in the urine without symptoms of infection) and up to 40 per cent experience urinary tract infections.
- **Hydronephrosis** - if the labial adhesions block the urethra, the child is unable to empty their bladder. Without treatment, this will lead to an abnormally enlarged kidney (hydronephrosis) caused by the build-up of urine.

Diagnosis methods

Labial adhesions are diagnosed by physical examination. The doctor may check to make sure that other genital abnormalities, such as an imperforate (closed) hymen, aren't causing the difficulties. Additional tests may include:

- Urine tests to check for infection
- Voiding cystourethrogram to check for enlarged bladder and kidneys.

Treatment options

In most cases, labial adhesions are harmless and resolve by themselves once puberty starts (from about 10 years of age). If the adhesions are severe and interfere with urination, medical treatment is needed. Options include:

- **Monitoring** - in mild cases, no action is necessary.
- **Oestrogen cream** - generally, the cream is applied to the area once or twice every day for between two and eight weeks. This is successful in about 80 per cent of cases. Any hormonal side effects are short lived and resolve by themselves once the cream is no longer used. For example, colour changes to the labia are common, but the skin tone soon returns to normal after the end of treatment.
- **Operation** - sometimes, the labia are separated by surgery. This option is considered the last resort. An antibiotic cream must be applied to the labial edges to stop them from sticking together while they heal.

Labial adhesions can recur

Successful treatment doesn't prevent the condition from happening again. Suggestions include:

- Talk to your doctor about long term care; for example, you may need to keep applying creams (such as Vaseline) to the separated labia to prevent the condition from recurring.
- If your child is still wearing nappies, change them more frequently.
- After urinating or passing a bowel motion, your child's genitals should be wiped from front to back to make sure that wastes don't come in contact with the genital area. Make sure your older child knows how to wipe herself properly after going to the toilet.
- Avoid strongly perfumed soaps or bubble baths.
- Wash the genitals daily and pat dry with a soft towel.
- Seek prompt medical treatment for any vulval irritation or inflammation.
- Remember that labial adhesions sometimes recur even when you've done everything possible to prevent them.

Where to get help

- Your doctor
- Paediatric gynaecologist
- The Maternal and Child Health Line is available 24 hours a day Tel. 132 229.

Things to remember

- The cause of labial adhesions is thought to be irritation to the labia minora: for example, poor hygiene, strongly perfumed soaps and inflammatory conditions like vulvitis.
- The condition resolves during puberty because the effect of the female hormone oestrogen changes the cells that line the genitals.
- Treatment includes the daily application of oestrogen cream to the affected area.

Want to know more?

For references, related links and support group information, go to More information.

This page has been produced in consultation with, and approved by:

Royal Australian and New Zealand College of Obstetricians and Gynaecologists

Copyright © 1999/2007 State of Victoria. Reproduced from the Better Health Channel (www.betterhealth.vic.gov.au) at no cost with permission of the Victorian Minister for Health. Unauthorised reproduction and other uses comprised in the copyright are prohibited without permission.

- This Better Health Channel fact sheet has passed through a rigorous approval process. For the latest updates and more information visit www.betterhealth.vic.gov.au.