Phimosis Fact Sheet
For Healthcare Professionals

What is Phimosis in Males?
Phimosis is a stricture (narrowing) of the prepuce (foreskin) resulting in an inability to retract the foreskin behind the glans. Typically divided into physiologic and pathologic phimosis, where physiologic phimosis is the normal condition in which infants are born with a tight foreskin and separation usually occurs during late childhood to early adolescence. Pathologic phimosis is thought to be a consequence of several factors including infection, inflammation, or scarring.

Normal Foreskin Development.
The inner layer of the foreskin is sealed to the glans penis at birth. The foreskin is usually non-retractable in infancy and early childhood. Experts advise that non-retractability may be considered normal for males up to and including adolescence. Sexual health studies have consistently found that the foreskin, due to a very high concentration of sensory nerve receptors, plays a significant role in sexual arousal & stimulation. Circumcision can significantly reduce sensation during sexual activity. The majority of adult patients post circumcision report a significant loss of sensation and enjoyment of sexual activity.

What Causes Phimosis?
The major mechanical conditions that prevent foreskin retraction are:
1. The tip of the foreskin is too narrow to pass over the glans penis. This is normal in children and adolescents.
2. The inner surface of the foreskin is fused with the glans penis. This is normal in children and adolescents but abnormal in adults.
3. The frenulum is too short to allow complete retraction of the foreskin (a condition called frenulum breve).
Pathological phimosis (as opposed to the natural non-retractability of the foreskin in childhood) is rare and the causes are varied. Some cases may arise from balanitis (inflammation of the glans penis), arguably due to inappropriate efforts to retract an infant's foreskin. It is believed that rough masturbation practices may cause phimosis. Patients are advised to stop exacerbating masturbation techniques and are encouraged to masturbate by moving the foreskin up and down so as to mimic more closely the action of sexual intercourse. Lichen sclerosus et atrophicus (thought to be the same condition as balanitis xerotica obliterans) is regarded as a common (or even the main) cause of pathological phimosis. This is a skin condition of unknown origin that causes a whitish ring of indurated tissue (a cicatrix) to form near the tip of the prepuce. This inelastic tissue prevents retraction. Phimosis may occur after other types of chronic inflammation (such as balanoposthitis), repeated catheterization, or forcible foreskin retraction. Phimosis may also arise in untreated diabetics due to the presence of glucose in their urine giving rise to infection in the foreskin. Phimosis in older children and adults can vary in severity, with some able to retract their foreskin partially (relative phimosis), and some completely unable to retract their foreskin even when the penis is in the flaccid state (full phimosis).

Treatment Options for Phimosis
Physiologic phimosis, common in males 10 years of age and younger, is normal, and does not require intervention. Non-retractable foreskin usually becomes retractable during the course of puberty. If phimosis in older children or adults is not causing acute and severe problems, nonsurgical measures have been shown to be effective. Choice of treatment is often determined by whether the patient (or doctor) views circumcision as an option of last resort to be avoided or as the preferred course. Advice should always be given that circumcision is permanent and cannot be reversed, has potential side effects and may lead to significantly reduced sexual sensation and performance.

Non Surgical:
Topical steroid creams are effective in treating mild phimosis and may provide an alternative to circumcision. It is theorized that the steroids work by reducing the body's inflammatory and immune responses, and also by thinning the skin. Stretching of the foreskin can be accomplished manually with a specialized foreskin stretching balloon. The balloon is modified to encourage adherence to the skin in between the foreskin and glans. The balloon is inflated and left in situ for up to 15 minutes twice daily. Skin that is under tension expands by growing additional cells.

Surgeons methods:
Circumcision is sometimes performed for phimosis, and whilst it is effective, it is now considered to be the treatment of last resort unless it is the preferred treatment pathway for an informed patient. Dorsal slit (surgical circumcision) is a single incision along the upper length of the foreskin from the tip to the corona, exposing the glans without removing any tissue. Ventral slit (subincision) is an incision along the lower length of the foreskin from the tip of the frenulum to the base of the glans, removing the frenulum in the process. Often used when frenulum breve occurs alongside the phimosis. Preputioplasty, in which a limited dorsal slit with transverse closure is made along the constricting band of skin can be an effective alternative to circumcision. It has the advantage of only limited pain and a short time of healing relative to circumcision, and avoids cosmetic effects.

Treatment of Paraphimosis
Paraphimosis is an uncommon medical condition where the foreskin becomes trapped behind the glans penis, and cannot be reduced (pulled back to its normal flaccid position covering the glans penis). If this condition persists for several hours or there is any sign of a lack of blood flow, paraphimosis should be treated as a medical emergency, as it can result in gangrene. Paraphimosis can often be effectively treated by manual manipulation of the swollen foreskin tissue. This involves compressing the glans and moving the foreskin back to its normal position, perhaps with the aid of a lubricant, cold compression, and local anaesthesia as necessary. Surgery may be required if manual manipulation process is unsuccessful.
Novoglan Foreskin Stretching Device

Indication:

**Novoglan Gentle Foreskin Stretcher**
is a class 1 medical device indicated for the treatment of phimosis or for the preferential loosening of the foreskin.

Novoglan Gentle Foreskin Stretcher Kit is a procedure pack containing the Novoglan device head, treatment balloons, balloon placement rod, antiseptic wipes, cotton buds and air plunger. The treatment is for a minimum period of two weeks. Additional balloons can be obtained to extend the treatment period. An extra-large air plunger is also available to significantly increase stretching pressure for suitable patients.

The Novoglan Gentle Foreskin Stretcher Procedure is fully supported by instructions that come with the kit and a full video on how to use the product is also available at [http://store.novoglan.com/novoglan-videos/](http://store.novoglan.com/novoglan-videos/)

The basic procedure is outlined in the following steps as documented and illustrated in the instructions and video:

- Clean the foreskin and remove smegma with cotton buds (where appropriate).
- Insert the placement rod into device head with balloon attached.
- Insert balloon (used rod as a guide), into the phimotic opening and gently push balloon into position as far into the inside of foreskin as comfort allows.
- Remove rod and insert air plunger. Inflate plunger to a level that is comfortable and creates stretching in the foreskin.
- Twist device head several times to seal balloon, remove air plunger and place plug into device head to keep balloon inflated for treatment period.
- Balloon position can be slightly modified after each stretch, however, maintaining the same insertion position works effectively.
- Each stretch should be maintained for 15 minutes and should not cause pain or discomfort. Physicians may direct a longer period of treatment; however, the balloon should not be left in the foreskin during sleep.
- Stretching usually takes two weeks, with some patients needing up to 6 weeks. A steroid cream may be used concomitantly for the first 7 days; however, the cream should not come into contact with the balloon.

Novoglan balloon contains latex.

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