

# Functions of the Foreskin

A list sourced from [medical publications](#)

## What does the male foreskin do? Foreskin...

1. **Protects** the infant from contaminants, infection, and meatal stenosis.

The foreskin is fused to the head of the penis in infancy<sup>[1]</sup>, providing protection. The preputial sphincter at the tip specifically serves as a simple barrier that keeps out environmental contamination. It is not designed to be pulled back in infancy or childhood. Meatal stenosis (narrowing or closing of the urethral hole) occurs in approximately 10% of circumcised boys<sup>[2]</sup> and sometimes requires painful corrective surgery.

2. **Protects** the adult glans from chafing and loss of feeling.

When the mucosa of the glans are exposed to chafing, the glans protects itself by keratinizing<sup>[3]</sup> (similar to a callous). Foreskin keeps the glans internal, as it is supposed to be. The more the glans keratinizes, the less it can feel.<sup>[4]</sup>

3. **Stores and releases** natural lubricants.

With natural lubricant,<sup>[5]</sup> men with foreskin generally do not need lotion or lubricant for sexual activity. Women benefit from the lower risk of friction and dryness that a man's foreskin provides. It also serves to seal in the female sexual partner's lubrication, preventing it from losing its effectiveness.<sup>[6]</sup>

4. **Feels** good for its owner with specialized pleasure nerves.

The foreskin is densely innervated with multiple types of nerves.<sup>[7]</sup> These nerves respond to stretch, fine touch detail, temperature, and more. Foreskin feels really good.

5. **Delivers pleasure** to the male's partner.

The presence of the male foreskin is inherently pleasurable in intercourse. In particular, it stimulates the female clitoris in certain sexual positions.

6. **Rolls/glides** rather than rubs. This helps prevent friction and dryness, eases penetration, and provides pleasure.

The mechanics of sexual activity are changed dramatically with circumcision, from rolling to rubbing. Circumcised males "tend to thrust harder and deeper, using elongated strokes," but intact males tend "to thrust more gently, to have shorter strokes, and tended to be in contact with the mons pubis and clitoris

more."<sup>[6]</sup> Also, the sliding/gliding motion of the foreskin over the glans and corona is deeply pleasurable for the male and makes initial insertion of the penis easier and more comfortable for both partners.

## 7. **Keeps** the head of the penis warm, moist, and comfortable.

Like the eyeball, inside of the cheek, and vagina, the glans is designed to be a protected internal organ.<sup>[3]</sup>

## 8. **Provides** sensory feedback, giving the man greater control of the sexual experience.

The structures of the foreskin provide full, natural levels of neurological feedback, which allow robust control over erection, arousal, and orgasm.

## 9. **Facilitates** erection and ejaculation when wanted.

The foreskin contains the most pleasurable parts of the penis. This complete sensation, elimination of friction and pain, and other functions reduce the risk of erectile and ejaculatory problems.<sup>[8]</sup>

## 10. **Helps prevent** erection and ejaculation when unwanted.

The foreskin protects the glans from being aroused at inappropriate times, reducing involuntary erections. Feedback helps prevent premature ejaculation.

## 11. **Maximizes** penile length and thickness.

It's common sense: if you cut part of something off, you make it smaller. This has been observed by professional journals, including one which found that the penises of circumcised males were an average of almost 1 centimeter shorter.<sup>[9]</sup>

## 12. **Feels** details as well as the fingertips can.

The specialized nerves don't just feel good - they feel well.<sup>[7]</sup>

## 13. **Increases** sexual arousal.

Apocrine glands in the foreskin<sup>[10]</sup> may release pheromones, signal chemicals that help encourage sexual arousal in the man's partner. The foreskin also prevents discoloration of the red/purple/pink head of the penis, preserving the sexual signal conveyed by this natural coloration.

## 14. **Defends** against harmful germs.

Specialized cells provide defense against unhealthy microbes.<sup>[10]</sup> As long as the man washes occasionally with water, not soap, the microbial balance of the area remains healthy and infections are prevented.

## 15. **Prevents** painful erections.

An intact man is safe from "not enough skin" erection problems.<sup>[11]</sup> The foreskin is a part of a whole penile skin system – it expands and moves along with erection. In addition, the frenar band massages the glans during sliding/gliding, regulating blood flow and preventing the erection from becoming "too hard," which can happen with some men.

## 16. Prevents pain after orgasm.

Without correct protection and mechanical function, some men experience a burning or other pain after ejaculation.<sup>[12]</sup>

The foreskin has various other sexual, cosmetic, neurological, and other functions. For example, it provides protection from cold, burns, and trauma, and it contains a rich network of blood vessels to support good penile function.

The foreskin is supposed to be there, for many reasons.

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### Selected References

1. See more on this at "[The development of retractile foreskin in the child and adolescent](#)" from Doctors Opposing Circumcision. The foreskin should never be retracted in this state. The [American Academy of Pediatrics says](#):

"Most boys will be able to retract their foreskins by the time they are 5 [others sources say the average is 10.5] years old, yet others will not be able to until the teen years. As a boy becomes more aware of his body, he will most likely discover how to retract his own foreskin. But foreskin retraction should never be forced. Until the foreskin fully separates, **do not try to pull it back**. Forcing the foreskin to retract before it is ready can cause severe pain, bleeding, and tears in the skin."

Premature retraction is the cause of nearly all "foreskin problem" stories in the United States. The foreskin is fused in infants and children as a protective structure and is not designed to be pulled back until later in life.

2. Meatal stenosis is a condition where the urethra (hole) narrows or begins to close up. Medical articles on incidence of meatal stenosis:

- Joudi M, Fathi M, Hiradfar M. [Incidence of asymptomatic meatal stenosis in children following neonatal circumcision](#). J Pediatr Urol. 2011;7:526-8.
- Van Howe RS. [Incidence of meatal stenosis following neonatal circumcision in a primary care setting](#). Clin Pediatr (Phila). 2006;45:49-54.
- Allen JS, Summers JL. Meatal stenosis in children. J Urol. 1974; 112: 526-7.

See also:

- Brennemann J. The ulcerated meatus in the circumcised child. Am J Dis Child. 1921;21:38-47.
- Berry CD Jr, Cross RR Jr. Urethral meatal caliber in circumcised and uncircumcised males. Am J Dis Child. 1956;92:621.
- Allen JS, Summers JL, Wilkerson JE. Meatal calibration of newborn boys. J Urol. 1972;107:498.
- Wang M-H. Surgical management of meatal stenosis with meatoplasty. J Vis Exp. 2010;(45):2213.
- Angel CA. Meatal stenosis. Medscape website. Updated 2014 Sep 10. Available at: [emedicine.medscape.com/article/1016016-overview](http://emedicine.medscape.com/article/1016016-overview)
- Austin PF, Vricella GJ. Functional disorders of the lower urinary tract in children. In: Wein AJ, Kavoussi LR, Partin AW, Peters CA, editors. Campbell-Walsh Urology. 11th ed. Philadelphia: Elsevier, Inc.; 2016.
- Persad R, Sharma S, McTavish J, Imber C, Mouriquand PD. Clinical presentation and pathophysiology of meatal stenosis following circumcision. Br J Urol. 1995;75(1):91-3.
- Van Howe RS. Variability in penile appearance and penile findings: a prospective study. Br J Urol. 1997;80:776-82.
- MacKenzie AR. Meatal ulceration following neonatal circumcision. Obstet Gynecol. 1966;28:221-3.
- Yegane RA, Kheirollahi AR, Salehi NA, Bashashati M, Khoshdel JA, Ahmadi M. Late complications of circumcision in Iran. Pediatr Surg Int. 2006;22:442-5.

- Griffiths DM, Atwell JD, Freeman NV. A prospective survey of the indications and morbidity of circumcision in children. *Eur Urol.* 1985;11:184-7.
- Wright JE. Non-therapeutic circumcision. *Med J Aust.* 1967;1:1083-6.

3. Cold CJ, Taylor JR. [The prepuce](#). *BJU Int.* 1999;83(Suppl 1):34-44.

4. Sorrells ML, Snyder JL, Reiss MD, Eden C, Milos MF, Wilcox N, et al. [Fine-touch pressure thresholds in the adult penis](#). *BJU Int.* 2007;99:864-9.

5. See Money J, Davison J. [Adult penile circumcision: erotosexual and cosmetic sequelae](#). *J Sex Res.* 1983;19:289-92. See also Bensley GA, Boyle GJ. [Physical, sexual, and psychological effects of male infant circumcision: an exploratory survey](#). In: Denniston GC, Hodges FM, Milos MF, eds. *Understanding circumcision: a multi-disciplinary approach to a multidimensional problem*. New York: Kluwer Academic/Plenum Publishers; 2001. p. 207-39.

6. O'Hara K, O'Hara J. [The effect of male circumcision on the sexual enjoyment of the female partner](#). *BJU Int.* 1999;83(Suppl 1):79-84. Significant discussion of the various sources, with references, is available in [this summary article](#).

7. See especially Sorrells ML, Snyder JL, Reiss MD, Eden C, Milos MF, Wilcox N, et al. [Fine-touch pressure thresholds in the adult penis](#). *BJU Int.* 2007;99:864-9.

This point is worth extended discussion, as a recent study by Bossio et al. has been frequently misinterpreted recently. Here are a few points from the article [here](#) by Doctors Opposing Circumcision:

- "Sorrells et al. (2007), using micro-filament touch-testing on 19 points on the penises of intact versus circumcised men, found that the most fine-touch-sensitive regions of the penis are those removed by circumcision."
- "The several sensory testing studies that claim to have found no difference between the sensitivity of the intact and the circumcised penis have significant methodological limitations. Some only tested the glans, but failed to test sensation in the prepuce itself.[19,20] The glans ... is the least light-touch-sensitive part of the penis in both circumcised and intact men."
- "In an online survey, intact males predominantly identified the foreskin, not the glans, as the main site of sexual pleasure." See Meislahn HS, Taylor JR. [The importance of the foreskin to male sexual reflexes](#). In: Denniston GC, Hodges FM, Milos MF, eds. *Flesh and blood: perspectives on the problem of circumcision in contemporary society*. New York: Kluwer Academic/Plenum Publishers; 2004. p. 27-43.
- "Two studies that reported no difference in sensitivity did test, in addition to the glans, a single point on the dorsal midline of the outer foreskin. This point is an area that Sorrells et al. found to be the least sensitive to fine touch compared to other parts of the foreskin (such as the preputial outlet, the frenulum, and the inner foreskin)." These studies are *Bleustein CB, Fogarty JD, Eckholdt H, Arezzo JC, Melman A. Effect of neonatal circumcision on penile neurologic sensation. Urology. 2005;65(4):773-7* and *Bossio JA, Pukall CF, Steele SS. Examining penile sensitivity in neonatally circumcised and intact men using quantitative sensory testing. J Urol. 2015 Dec 24.*
- "Perhaps surprisingly then, the authors of one of these studies, [Bossio et al.](#), still found that the foreskin of intact men was more sensitive to tactile stimulation than any other part of the penis (circumcised or not), and also that it was more sensitive to warmth than the glans (both results statistically significant). However, ignoring their own findings, these authors [reported](#) the contradictory conclusion that neonatal circumcision has 'minimal long-term implications for penile sensitivity!' This pronouncement further ignores the fact that static, single-point testing in a laboratory may be very different from real-life sexual stimulation, in which all parts of the foreskin are likely to be stimulated via moving, rather than static, gestures. Bossio et al.'s study has been critiqued in detail elsewhere." See Earp BD. [Infant circumcision and adult penile sensitivity: implications for sexual experience](#). *Trends Urol Mens Health.* 2016;7(4):17-21.

8. Again, the following articles are summarized, explained, and discussed [here](#).

- Assessment: neurological evaluation of male sexual dysfunction. Report of the Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology. *Neurology*. 1995;45(12):2287-92.
- Podnar S. Clinical elicitation of the penilo-cavernosus reflex in circumcised men. *BJU Int*. 2011;109:582-585.
- Coursey JW, Morey AF, McAninch JW, Summerton DJ, Secrest C, White P, et al. Erectile function after anterior urethroplasty. *J Urol*. 2001;166(6):2273-6.
- Bollinger D, Van Howe RS. Alexythmia and circumcision trauma: a preliminary investigation. *Int J Mens Health*. 2011;10(2):184-195.
- Meislahn HS, Taylor JR. The importance of the foreskin to male sexual reflexes. In: Denniston GC, Hodges FM, Milos MF, eds. *Flesh and blood: perspectives on the problem of circumcision in contemporary society*. New York: Kluwer Academic/Plenum Publishers; 2004. p. 27-43.

See also surveys with statistically significant groups of males reporting difficulty with erection and ejaculation after adult circumcision:

- Fink KS, Carson CC, DeVellis RF. [Adult circumcision outcomes study: effect on erectile function, penile sensitivity, sexual activity and satisfaction](#). *J Urol*. 2002;167(5):2113-6.
- Shen Z, Chen S, Zhu C, Wan Q, Chen Z. [Erectile function evaluation after adult circumcision]. *Zhonghua Nan Ke Xue*. 2004;10(1):18-9. Chinese.
- Senkul T, Iserl C, Sen B, Karademir K, Saracoglu F, Erden D. Circumcision in adults: effect on sexual function. *Urology*. 2004;63(1):155-8.
- Solinis I, Yiannaki A. Does circumcision improve couple's sex life? *J Mens Health*. 2007;4(3):361.
- Senol MG, Sen B, Karademir K, Sen H, Saracoglu M. [The effect of male circumcision on pudendal evoked potentials and sexual satisfaction](#). *Acta Neurol Belg*. 2008;108(3):90-3

9. Richters J, Gerofi J, Donovan B. [Are condoms the right size\(s\)? A method for self-measurement of the erect penis](#). *Venereology*. 1995;8(2):77-81.

10. This is still a tentative point, as much of the body is simply not yet understood. Further study of apocrine glands is required. See Fleiss P, Hodges F, Van Howe RS. [Immunological functions of the human prepuce](#). *Sex Transm Infect*. 1998;74:364-7. Also, see the details presented in this [important journal article](#) on the structure and anatomy of the foreskin.

11. Insufficient remaining skin to accommodate erections is a very common complaint from circumcised children and adults. It has also been mentioned in academic literature – see, for example, [here](#).

12. Publication of research on this point is still pending, but Ken McGrath, Senior Lecturer in Pathology at the Faculty of Health, Auckland University of Technology and Member of the New Zealand Institute of Medical Laboratory Scientists, explains the details [here](#) at the [12:15 mark](#).