

CIRCUMCISION



pediatric

urology

INFORM

"Should we circumcise our baby boy?"

Circumcision: permanent surgical removal of the prepuce (foreskin), a fold of tissue that covers the glans (head) of the penis.

Elective circumcisions are NOT recommended as routine neonatal intervention in Canada

Canadian Pediatric Society (CPS): due to close balance of medical risk-to-benefit ratio, the informed decision of circumcision should be made by parents after weighing individual risks and benefits to their son in context of their familial, religious, and cultural beliefs.

Phimosis (non-retractile foreskin) = inability of the prepuce to retract back over the glans

Physiologic phimosis: foreskin present at birth is normally non-retractile! Congenital adhesions between glans and prepuce will loosen by puberty in majority of cases, allowing for eventual retraction.

Pathologic phimosis: problematic scarring of prepuce that develops later in life due to infection and inflammation.

> First line treatment: topical steroid cream (0.05 - 0.1% betamethasone) BID with gentle traction. Successful in 80% of cases



> If unsuccessful, should consider medically necessary circumcision.

Contraindications: Congenital penile

abnormalities such as

- Hypospadias
- Dorsal hood deformities
- Chordee
- Micropenis
- Webbed penis
- Buried penis Large hydrocele or hernia

Delay in unstable or premature infants

Relative contraindications: bleeding disorders



History and Physical Exam

- Impaired urinary stream? (weak, dribbling, spraying)
- Recurrent UTIs?
- Unable to visualize urethral meatus?
- Blanched patches? (Indicative of lichen sclerosis)

DISCUSS

Benefits:

- Prevents paraphimosis (painful retraction of the foreskin that cannot be returned to normal position)
- Reduced risk of **balanitis** (inflammation of the glans)
- ✓ Lower rate of pathologic phimosis (NNT* = 67)
- Reduced rate of **UTIs** in 1st year of life (NNT = 125 in normal infant boys; NNT = 5 in high risk groups such as recurrent UTI or underlying urinary tract anomaly)
- Reduced rate of **HSV** infection (NNT = 16)
- Reduced rate of HPV infection (NNT = 5) and reduced risk of cervical cancer in female partners (NNT = 120)
- No negative impact on sexual function or satisfaction in males or their partners.

*NNT = number needed to treat

Risks:

Surgical Risks:

- X Minor: local infection, minor bleeding
- Severe: sepsis, major hemorrhage, permanent anatomical damage to glans or urethra
- X Late: meatal stenosis, penile adhesions, buried penis
- X Unsatisfactory cosmetic appearance
- X Anesthetic risks if requiring general anesthesia

Complication rates:

- X 1.5% in neonates and infants
- X 6% in childhood, adolescence, and adulthood Ethical concerns of child being unable to consent

DECIDE

- Guide parents in informed decision making by educating about all known risks and benefits
- If unsure, offer online resources and schedule for follow up
- Be mindful that this procedure has important religious, cultural, and ethnic significance, and acknowledge these values in the decision making process

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"Okay, let's go ahead"

Refer parents to a medical professional (pediatrician, pediatric urologist, family doctor) who is trained and well practiced in the procedure to significantly decrease complication rates.

- Various procedure methods such as freehand technique or device-assisted have similar outcomes.
- Generally recommended to undergo procedure during infancy (< 2 weeks of age) using only local anesthesia. If done at older age the procedure is associated with higher complication rates and requires general anesthesia.

"No, not for us"

- No special care needed for uncircumcised penis. Routine bathing and hygiene practices are sufficient.
- Do not forcibly retract the foreskin as this may cause scarring, leading to adhesions.
- Only 4% of newborn males will have a completely retractable foreskin at birth; 50% by 6 years old; and 95% by 17 years old.
- As the male ages, growth of the penis and physiologic erections will loosen adhesions, allowing for retraction.
- If the foreskin has been retracted, always replace back over the glans to prevent paraphimosis.

