

## TO CIRCUMCISE OR NOT TO CIRCUMCISE

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### Guidelines set by central agencies

Routine circumcision is not recommended by most governing agencies. The **Canadian Pediatric Society** (CPS) states that "Circumcision of newborns should not be routinely performed" (1). The **College of Physicians and Surgeons of British Columbia** shares this view and requires physicians to obtain the consent of both parents before performing an unnecessary elective non-therapeutic circumcision of a child (2). Recommendations put forth by the **American Academy of Pediatrics** agree with the above (3).

The overall evidence of the benefits and costs of circumcision is so evenly balanced that it does not support recommending circumcision as a routine procedure for newborns.

### Benefits

- ❑ Circumcision results in an approximately 12-fold reduction in the incidence of UTI during infancy. The overall incidence of UTI in male infants appears to be 1% to 2%.
- ❑ Circumcision results in a reduction in the incidence of penile cancer and of HIV transmission. A recent (2005) study done in South Africa, found a 65% reduction in numbers of transmissions of HIV in men who were circumcised, compared to those not circumcised (4).
- ❑ As opposed to removal of the prepuce later in life, performing circumcision on a neonate is cheaper, simpler and results in fewer

complications. The mean cost to perform circumcision with local anesthesia in a neonate (excluding professional fees) is about ten times less than the cost to perform circumcision under general anesthesia, required later in life.

## Costs

- Complications
  - The complication rate for newborn circumcision is reported to be between 0.2% to 3% (5). Complications include early problems such as bleeding, wound infection, penile adhesions, removal of too much or too little skin, secondary phimosis with a trapped or hidden penis, and injury to the glans, urethra, or penile shaft. The main late complication is meatal stenosis.
- Painful experience for newborn
  - Circumcision may have long term psychological and emotional effects on the neonate. Although nerve block reduces the sensation of pain, it is thought that some sensation remains.
- Change in sexual functioning
  - Controversy exists regarding the effect circumcision has on sexual satisfaction later in life. Some have found neurologic sensation in the glans to increase (9) while others have found it to stay the same (10) or decrease (11) with circumcision.

## Contraindications

- A boy born prematurely should not be circumcised until stabilized.
- The presence of any significant illness may predispose an infant to peri-procedural complications. For this reason circumcision is not done within the first 24 hours of life.
- An infant known to have a bleeding disorder or with a family history of bleeding is at risk of excessive blood loss.
- Infants with genital abnormalities such as hypospadias should not be circumcised as the skin of the prepuce may be needed for reconstructive surgery.
- After 6-8 weeks of life maternal clotting factors are metabolised and the infant is prone to excessive blood loss.

## The procedure

Dorsal penile nerve block at the base of the penis with 1% lidocaine is commonly used to obtain local anaesthesia. Parents can select general anaesthetics for their child, although this is a more expensive as well as risky option for a neonate.

The instruments for newborn circumcision include the Plastibel, the Sheldon clamp (6) and the Gomco clamp (7). The baby is restrained on a papoose board and the genital area prepared with povidone-iodine or another suitable agent. The child is then draped with a “peep” sheet, and the adhesions between the glans penis and the foreskin freed with a probe while holding the foreskin firmly. At this point, either of the above named clamps can be used. The Plastibel and Gomco clamps are preferred as they allow visualization of the glans throughout the procedure. “Blind” techniques such as with the Mogen clamp should be avoided to minimise the risk of accidental amputation of the glans (8). See links for [general description](#) of the procedure with pictures or [detailed descriptions](#) of each clamp method.

#### Plastibel

- The flexible Plastibel is inserted under the foreskin and tied securely in place with the supplied cord. This maneuver causes loss of blood supply to the foreskin, which is then excised. The handle to the bell is then broken off, and the parents are instructed that the bell and cord will fall off in several days.

#### Sheldon Clamp (6)

A mosquito hemostat is applied across the distal foreskin. The Sheldon clamp is slid into position over this mosquito hemostat. The jaws of the mosquito are closed to prevent entrance of the tip into the urethra. The foreskin is then pulled through the jaws of the Sheldon clamp to the maximal amount of retraction, and the jaws of the Sheldon clamp are locked for 3 minutes. The foreskin is excised and the glans “popped” through the incision after removal of the Sheldon clamp.

#### Gomco Clamp (7)

- A mosquito hemostat is used to clamp the dorsum of the foreskin to the area of the corona for 1 minute. A dorsal slit is then made with scissors, and the rigid bell of proper size is inserted over the glans penis and the clamp secured for 3 minutes. The foreskin is then excised.

## Conclusion

When parents are making a decision about circumcision, they should be advised of the present state of medical knowledge about its benefits and harms. Their decision may ultimately be based on personal, religious or cultural factors.

## References

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Writer: Elmine Statham