



Circumcision impedes viral disease. Will opposition fade?

↻ The argument for neonatal circumcision gets a boost from data on HIV, HPV, and HSV prevention

Circumcision is an ancient procedure; you'll find it depicted (with no indication of a level of evidence) in Egyptian bas relief art as long ago as 2400 BCE. Now, 4,400 years later, evolving data from randomized clinical trials show that neonatal circumcision reduces the risk of transmission of several sexually transmitted viruses, including human immunodeficiency virus (HIV), human papillomavirus (HPV), and human herpes simplex virus (HSV). These data are tipping the scales further to the "beneficial" side of what has been a long and contentious debate over the value and safety of circumcision.

In modern times, circumcision has been performed for a range of reasons—religious, social, cultural, and medical. As with any surgical procedure, the potential benefits need to be weighed against risks. Here is what we have learned recently about some of the benefits:

Circumcision protects against HIV.

Randomized studies conducted in various regions of Africa have clearly demonstrated that circumcision reduces the risk in those regions of acquiring HIV infection. A study in South Africa (where newborn circumcision is outlawed), for example, showed that circumcision of adult males is associated with a 50% reduction in the risk of acquiring HIV.¹ In those trials, circumcision of adult men was reported to be a safe procedure.²

The potential that circumcision has to reduce the destruction of the HIV epidemic prompted the World Health Organization to recommend that circumcision be part of a comprehensive HIV prevention program that includes counseling, testing, treatment, and the promotion of safe sex practices, including the use of condoms.³

Circumcision protects against HPV and HSV.

In a recent clinical trial in Uganda, 3,393 adult men were randomized to either immediate (baseline) circumcision (the treatment group) or to delayed circumcision, 24 months after entry (the control group).⁴ At 24 months' postbaseline follow-up, when the two groups were compared, circumcision was demonstrated to have:

- reduced the risk of type 2 HSV seroconversion by 28%
- reduced the risk of the prevalence of high-risk HPV genotypes by 35%.

Note: Circumcision did not protect against syphilis in this study. (In other studies, circumcision did not protect against *Neisseria gonorrhoeae* infection.)

Lively debate continues to surround ethics of circumcision

Some experts believe that circumcision is an unethical practice; inflammatory language used by opponents likens circumcision to sexual abuse

and to forcible female genital mutilation. The American Academy of Pediatrics (AAP) has declared that parents have an ethical duty to make an informed choice about medical interventions for their infant, who, of course, lacks the capacity to decide.⁵ When parents believe that circumcision offers clear and significant net medical and nonmedical benefit for the baby, AAP states, it is ethical for a physician to perform the procedure.

Parents should be given unbiased written information that outlines the potential benefits and the risks of circumcision; that information should be provided in language that is comprehensible to the parents. In a small study of attitudes toward circumcision, parents who did *not* have their child circumcised were less satisfied with their decision than were parents who did have their child circumcised. In addition, parents who did *not* have their newborn circumcised reported more often than parents who did that they had not received comprehensive information on the risks and benefits of circumcision.⁶

The role of anesthesia

According to legend, the ancient Egyptian sun god, Ra, circumcised himself without anesthesia. A major advance in circumcision surgery has been widespread adoption of anesthesia for the procedure. Dorsal

Who should circumcise—peds or ObGyns? Or both?

Controversy persists about who should perform routine neonatal circumcision. Pediatric urologists generally prefer not to take responsibility—leaving the ObGyn and the pediatrician in most hospitals to sometimes spar over who should bear responsibility for performing the procedure.

At some hospitals, ObGyns and pediatricians share responsibility for neonatal circumcision equally by monthly rotation; at others, responsibility falls for the most part on the shoulders of either the ObGyns or the pediatricians. One major ObGyn department decided that the complexity of providing a surgical procedure to a male infant argued for a transition of responsibility to pediatricians. It can be argued, however, that ObGyns tend to have better basic surgical skills than pediatricians do.


The American Academy of Pediatrics, in its broad policy statement on the subject, does not endorse one specialty practitioner over another for performing neonatal circumcision.⁵

It's likely that the controversy over who should perform routine neonatal circumcision will not be settled in a single manner across the United States.

penile block or a ring block provides better reduction in behavioral and physiologic signs of stress than no anesthesia or topical anesthetic cream.⁷ Giving 1 to 3 mL of a 24% sucrose solution by mouth may further reduce the stress response to circumcision.⁸

Evidence of benefit is broad, and mounting

Circumcision has been associated with many medical benefits, including a lower rate of urinary tract infection, penile cancer, penile inflammation (meatitis, balanitis, phimosis,

and balanoposthitis), and penile dermatoses. Benefits extend to female partners of circumcised men: They have lower rates of HPV infection, cervical cancer, genital ulceration, *Trichomonas* infection, and bacterial vaginosis. What appears to be a reduced risk of several sexually transmitted viral infections adds to the potential medical and public health benefits of circumcision. 



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Instant Poll



Here are two questions for you on the highly charged topic of neonatal circumcision:

What instrument do you use most often to circumcise a newborn?

- GOMCO clamp
- Plastibell device
- Mogen clamp
- None of these—I use a free-hand technique

Which specialist should be assigned responsibility for performing neonatal circumcision?

- Pediatric urologist
- Pediatrician
- ObGyn
- Both pediatrician and ObGyn

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