Non-Therapeutic Infant Circumcision

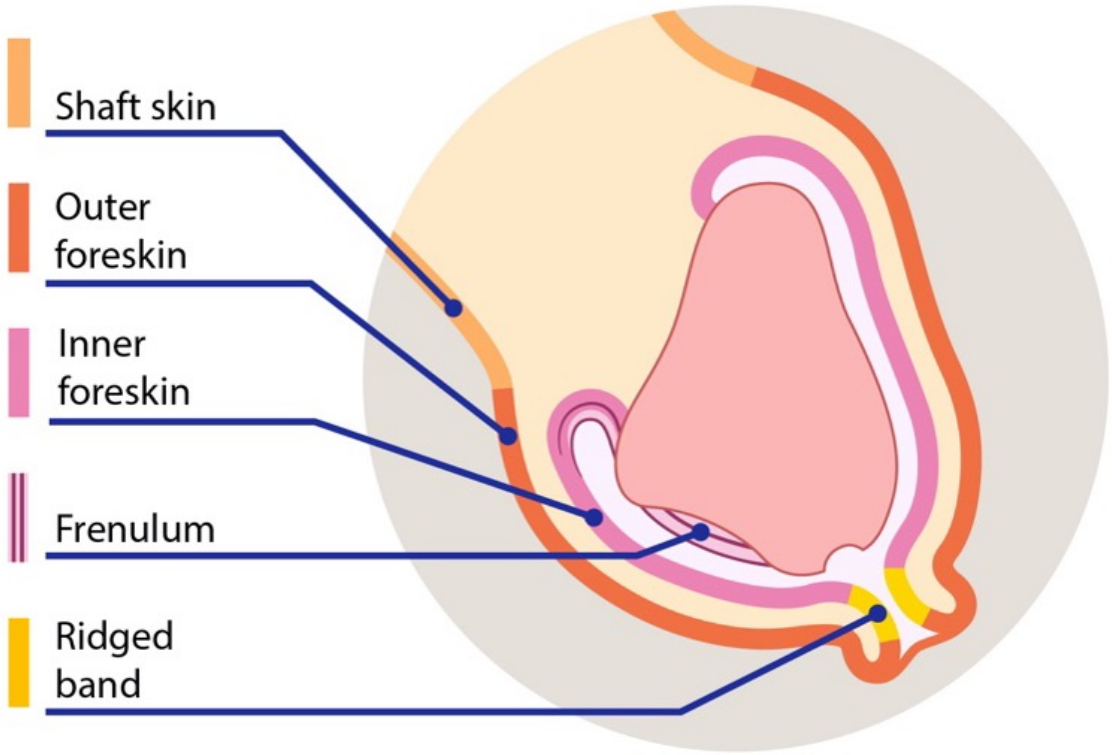
Matthew Tontonoz
2025-08-12

Non-therapeutic infant circumcision is the surgical removal of healthy foreskin from a male infant, often shortly after birth, for the purpose of achieving potential future medical benefits. Today, in 2025, the practice is common the United States but not as common in other Western industrialized countries. Though circumcision itself is an ancient cultural practice, doctors began performing circumcision for medical purposes only in the nineteenth century, and primarily in English-speaking countries. Orthopedic surgeon Lewis Sayre, who practiced medicine in New York City, New York, in the late nineteenth century popularized circumcision as a treatment for conditions such as muscle paralysis. Sayre's ideas eventually fell out of favor, but doctors increasingly identified other reasons to perform the procedure, including the prevention of sexually transmitted diseases, urinary tract infections, and cancer. As of 2025, doctors, parents, ethicists, and others continue to debate the medical value of circumcision as well as the ethics of operating on the healthy genitals of people who cannot consent.

Anatomy of the Foreskin

Circumcision removes some or all the foreskin of the penis. The foreskin, also called the prepuce, is a double layer of tissue that surrounds the head, or glans, of a penis. It has two surfaces, an outer surface that is a continuation of the skin on the shaft of the penis and an inner surface that is made up of mucosal tissue similar to what is found inside the mouth or vagina. A thin band of tissue called the frenulum connects the foreskin to the bottom of the

glans. In an adult male, but not in a newborn, the foreskin of the penis is typically mobile and easily pulled back, or retracted, over the glans. In newborns, the foreskin remains attached to the glans and does not become retractable until much later, sometimes not until their teenage years. Some evidence suggests that intact and circumcised penises differ in sensitivity. According to a study by pediatrician Morris Sorrells and colleagues published in 2007, the glans in the circumcised male is less sensitive to fine-touch pressure than the glans of the uncircumcised male, and five locations on the uncircumcised penis that are routinely removed in circumcision are more sensitive than the most sensitive location on the circumcised penis. However, that finding regarding sensitivity, like many other aspects of circumcision, is controversial and a topic of ongoing scientific debate.



The foreskin is a double layer of tissue that surrounds the head, or glans, of a penis. It has two surfaces, an outer surface that is a continuation of the skin on the shaft of the penis and an inner surface that is made up of mucosal tissue similar to what is found inside the mouth or vagina. A thin band of tissue called the frenulum connects the foreskin to the bottom of the glans. The ridged band is a highly innervated ring of tissue tucked inside the tip of the foreskin when nonretracted. Credit: Wikipedia.

Circumcision: Background and Context

Circumcision is an ancient human cultural practice whose origin predates recorded history. According to David Gollaher, author of the book *Circumcision: A History of the World's Most Controversial Surgery*, the oldest known image of circumcision is located in an Egyptian tomb, the necropolis at Saqqara, built around 2400 BC. However, evidence suggests the practice of circumcision is older than that. X-ray scans of mummies show that Egyptians practiced circumcision as early as 4000 BC. The procedure may have been performed as a rite to mark the passage to manhood, similar to how some cultures use it today, in 2025. For people of the Jewish faith, circumcision is a sign of a covenant made between God and Abraham. The Hebrew Bible tells the story of how God commanded Abraham to have his male heirs circumcised as a sign of that covenant. Traditionally, Jewish boys are circumcised on the eighth day after birth. Muslims share a religious tradition with Jews by taking Abraham's example and also practicing circumcision as a religious rite. Circumcision never became a defining feature of Christianity, as Paul the Apostle stated that circumcision was not a requirement to follow the religion. Several Indigenous peoples in Africa, the Americas, Indonesia, and Australia also practice some form of genital cutting, usually on both boys and girls, often as a rite of passage into adulthood.

The practice of medical circumcision, as opposed to circumcision done for religious or cultural reasons, began in the nineteenth century in English-speaking countries, in the context of widespread fears over masturbation. Traditional Christian beliefs had long discouraged non-procreative sex, including masturbation, but in the nineteenth century, figures within the medical establishment began to express concern about it as well. Among the first medical practitioners to treat the subject of masturbation was a physician from Switzerland, Samuel-Auguste-André David Tissot in his book *L'onanisme, Dissertation sur les Maladies Produites par la Masterbation* (Onanism, A Treatise Upon the Disorders Produced by Masturbation), which he originally published in 1758. That book warned of the great dangers that masturbation posed to health. Claude-Francois Lallemand, a physician and professor in France, went further and argued, in his three-volume book *Les Pertes Seminales Involontaires* (Involuntary Seminal Losses), published between 1836 and 1842, that the loss of semen for any reason was detrimental to health. According to Lallemand, such dangerous losses of semen, which he termed spermatorrhea, drained the body of vital energy and thereby led to disease. In that context, circumcision was one option available to doctors who wanted to discourage young boys from masturbating. Other options were more drastic. They included castration or removal of the testes, removal of the spermatic ducts, slitting open the urethra, cauterizing or burning the prostate, sewing the foreskin shut, locking the genitals in metal cages, and surrounding the penis with a metal ring studded with spikes to discourage erections. By making the penis less sensitive, circumcision supposedly reduced the temptation to masturbate.

In the late nineteenth century, some practitioners advocated performing circumcision without anesthesia, so that the pain experienced would be associated with punishment and serve as further disincentive to masturbate. John Harvey Kellogg, a physician at the Battle Creek Sanitarium in Battle Creek, Michigan, advocated such views in a book titled *Plain Facts for Old and Young*, first published in 1877 and revised several times thereafter. Though preventing masturbation eventually faded as a primary reason doctors recommended circumcision, doctors well into the twentieth century maintained that reducing the temptation to masturbate was a beneficial side effect of the procedure with or without anesthesia, even if undertaken primarily for other reasons. For example, as late as 1970, a widely used textbook, *Campbell's Urology*, recognized circumcision as a way to avert masturbation. According to numerous scholars, the nineteenth century obsession with masturbation, and anxieties about male sexuality more generally, forms an important backdrop to the mainstreaming of circumcision within medicine.

Lewis Sayre, Phimosis, and Reflex Irritation

Doctors' use of circumcision to treat diseases beyond masturbation became more popular in the mid-nineteenth century, primarily due to the work of Lewis Sayre, the orthopedic surgeon working in New York City. In 1870, Sayre gave a presentation before the American Medical Association, or AMA, describing his use of circumcision to cure muscle paralysis in several young boys. Sayre reported that in each patient, he found evidence of phimosis, a condition in which the foreskin tightly encases the glans of the penis and is not retractable. Sayre claimed that chronic irritation of the penis from phimosis can lead to nervous exhaustion that in turn leads to muscle paralysis. He reported that the circumcisions he performed cured the boys of their muscle problems.

According to historian Gollaher, one can better understand Sayre's rationale for linking genital irritation to muscle paralysis by understanding the then-popular notion of reflex neurosis. That is the idea that the organs of the body are all interconnected by nerves and that chronic irritation in one organ can cause dysfunction in another unrelated area. Many scientists around the turn of the century subscribed to that notion. In fact, it was the basis for a variety of gynecological surgeries, from removal of the ovaries, or ovariotomy, to removal of the clitoris, or clitoridectomy, which doctors performed on women at the time to treat what they referred to as hysteria.

Sayre was not the very first doctor to use circumcision to treat medical conditions, but his stature within the profession, and the fact that he proposed a new medical justification for it, likely contributed to its rising popularity in the US and the UK at the end of the nineteenth century. As Vice President and later President of the AMA, Sayre was involved in medical circles and taught as a professor in New York City at Bellevue Hospital Medical College,

which eventually merged with New York University. Through hundreds of speeches and papers, Sayre emphasized the benefits of circumcision. In 1875, five years after his original presentation to the AMA, Sayre gave another talk about circumcision before the AMA. In it, Sayre recounted the impact that his 1870 article had on the profession. He states that he received letters from all around the US, as well as, according to Sayre, from some of the most distinguished surgeons of Europe, thanking him for his contribution. In that same speech, he also recounted many more cases of treating paralysis with genital surgeries, including on girls. In 1887, at a meeting of the ninth International Medical Congress in Chicago, Illinois, the President of that organization at the time stated that no one had done more than Sayre to disseminate knowledge about the many diseases that phimosis can cause through reflex action.

Sayre's work helped to solidify the notion that a tight or non-retractable foreskin in children results in various detrimental health conditions and is in need of surgical correction. Though the foreskin is normally non-retractable in the great majority of newborn males, and can remain so up to the teenage years, doctors in Sayre's time did not know that. Thus, when doctors looked for phimosis in infants and young boys, they quite often found it. In effect, a non-retractable foreskin came to be seen as a kind of birth defect. The health conditions that phimosis could supposedly cause included cancer, venereal disease, or sexually transmitted disease, epilepsy, hydrocephalus, or the accumulation of brain fluid in the brain cavities, heart disease, urinary tract infections, deafness, and issues with speech. Physicians and researchers at the time also deemed other conditions a result of phimosis, including insanity, idiocy, masturbation, homosexuality, criminality, and even death. The belief that phimosis had so many malign consequences was so widespread at the time that phimosis was brought up as a potential cause for insanity in cases involving legal trials. For example, Charles J. Guiteau was sentenced to death for assassinating former President James A. Garfield. Guiteau was hanged in 1882 and his autopsy revealed that he had phimosis, which the media speculated was the cause of his insanity.

Circumcision as a Sanitary Precaution

As the germ theory of disease rose to prominence at the end of the nineteenth century, physicians in the US and in England relied less and less on the older idea of reflex neurosis as an explanation of why the foreskin posed dangers to health. Increasingly, they turned to explanations that focused on germs. In that context, they viewed the foreskin as a kind of breeding ground for harmful bacteria that could cause a variety of different diseases, from syphilis to cancer.

Abraham Wolbarst, a urologist who practiced medicine in New York City in the early decades of the twentieth century, was an advocate for circumcision as a sanitary measure. Wolbarst's

1914 article, “Universal Circumcision as a Sanitary Measure,” was among the first to advocate that physicians should begin circumcising the young as a precautionary measure to prevent diseases later in life. In that article, Wolbarst recommends circumcisions of the young to prevent a number of diseases that may befall an individual later in life, including syphilis, chancroid, warts, herpes, and cancer. He states that circumcision also helps to discourage masturbation and aids in general hygiene. Wolbarst refers to what he calls a stench arising from the unclean foreskin of the intact penis, even in the absence of any particular disease. Considering all the positive effects of the circumcision, Wolbarst concludes that it is one of the most beneficent measures ever devised for sanitary purposes. Wolbarst revisited the topic of universal circumcision in several additional articles over his career. According to Frederick Hodges, a historian who has written about the history of circumcision, Wolbarst’s steady promotion of universal, non-therapeutic circumcision of infants helped to normalize that practice.

Circumcision, Germs, and Class

At the opening of the twentieth century, as doctors in the US and England increasingly promoted the benefits of circumcision, initially only those from the upper classes could take advantage of the procedure. As such, according to Gollaher, circumcision became a salient marker of class distinction. It signaled your child had been born in a hospital under the care of doctors, which was a sign of upper-class privilege, as opposed to at home under the care of a midwife. Gollaher further argues that medical circumcision spoke to a pervasive fear of dirt and germs that took hold in the US around the turn of the twentieth century. That fear extended to people, especially immigrants. According to Gollaher, between 1890 and 1914 around seventeen million immigrants entered the US from other countries, many of whom ended up living in crowded and squalid urban conditions. Gollaher explains that circumcision was one way that members of the middle and upper classes asserted their distinction from the poor and recently immigrated.

Technical Developments and the Rise of Routinization

Two scientific developments at the end of the nineteenth century, antisepsis and anesthesia, indirectly aided the rising popularity of circumcision as a preventive health measure, primarily by promoting it as a safe, painless procedure. Beginning in 1860, Joseph Lister, a surgeon from England, pioneered the use of carbolic acid to sterilize surgical instruments, the hands of the surgeon, and the area where surgery took place, which was a form of antisepsis. Then in the 1880s, doctors began to use and modify cocaine and other drugs as anesthetics to dull pain. In the context of circumcision, doctors could now assure their patients, or the parents of

their patients, that the surgical procedure would be painless and carry a low risk of the kinds of infectious complications that had occurred up to that time. However, as Gollaher points out, even with those developments, it's unlikely that circumcision would ever have become routine had doctors needed to convince healthy adult men and boys to have the procedure. Instead, a prerequisite for the rise of routine circumcision was finding a population of individuals who needed no convincing, namely infants.

As circumcision was on the rise in the early decades of the twentieth century, doctors sought ways to standardize the procedure and to prevent complications, such as bleeding, infections, and removing too much skin. Since the nineteenth century, physicians had relied primarily on simple surgical tools such as forceps and surgical clamps to perform circumcisions. The results varied according to the skill of the surgeon and bleeding and infection were not uncommon, since antibiotics were not yet widely available. As late as 1935, A. P. Bertwistle, a surgeon in England, for example, published an article in *The Lancet,* where he bemoaned the lack of a standardized surgical approach, citing an array of different techniques.

What helped to standardize and simplify the procedure was the Gomco circumcision clamp, created by inventor Aaron A. Goldstein in collaboration with obstetrician and gynecologist Hiram S. Yellen in 1935. The Gomco clamp is a metal device that enables so-called bloodless circumcision by using force to crush the foreskin and seal off blood vessels before the practitioner makes a cut. It was one of the first circumcision devices to become popular in US hospitals, and is still, as of 2025, the most commonly used circumcision clamp. With the Gomco clamp, the practitioner can be assured that bleeding will likely not be an issue. In addition to reducing the risk of blood loss, the Gomco clamp helps control the amount of foreskin removed, protects the glans of the penis during circumcision, and allows for a clean surgical cut. Furthermore, the Gomco clamp simplified the procedure, eliminating the need for sutures.

When Yellen first described the Gomco clamp in 1935, he stated that anesthesia was not required when used on infants. That is because, according to Gollaher, doctors at that time believed that newborns could not feel pain, so they did not think anesthesia was warranted. Not until the 1980s, when scientists learned that newborns could indeed feel pain did researchers start exploring ways to alleviate it. For example, in 1994, researchers Cynthia R. Howard and colleagues, working in Rochester, New York, at the time, found that Tylenol, which typically alleviates pain, did little to numb pain and therefore they recommended safe but stronger alternative be used. As of 2025, physicians typically use a form of anesthesia to numb the pain of circumcision. You can view a video of a physician performing a Gomco-clamp circumcision here.

Douglas Gairdner and the Decline of the Phimosis Concept

According to numerous scholars, a turning point in circumcision's history came with the 1949 publication of "Fate of the Foreskin" by Douglas Gairdner, a pediatrician practicing medicine in Cambridge, England. In that article, Gairdner argued that phimosis, one of the main reasons that doctors ordered circumcision, was based on an inadequate understanding of foreskin anatomy. In his article, Gairdner explained that a non-retractable foreskin of the penis is the typical state in newborn males. According to Gairdner, the foreskin gradually separates from the underlying glans usually sometime between nine months to three years. As of 2025, researchers know that the disconnection between the foreskin and the glans can take longer than three years. In light of the evidence he had, Gairdner argued that circumcision to treat phimosis in infants was unnecessary. Gairdner also argued that the other supposed benefits of newborn circumcision that doctors routinely mention, such as preventing sexually transmitted infections, were not well supported by evidence. Today, as of 2025, doctors agree that parents should not attempt to retract the foreskin while it is still adhered to the glans. In cases where a tight foreskin makes retraction difficult in adolescents, doctors recommend a topical steroid treatment as a safe alternative to surgery.

According to historian Hodges, Gairdner's article had a significant impact in England, where he practiced medicine, but in the US, doctors largely ignored his article and continued routinely performing circumcisions. There are several reasons for those discrepant responses. First, Gairdner published "Fate of the Foreskin" one year after England launched its medical insurance program, the National Health Service, or NHS. Concerns about cost control and reducing unnecessary medical procedures were central to the NHS, and it ultimately decided that non-therapeutic circumcision should not be covered by insurance. Gollaher and Hodges both state that Gairdner's article influenced the NHS's decision.

In the US, by contrast, the medical insurance scheme that arose after World War II was largely private. As a result, policy makers in the US never subjected circumcision to the kind of cost-benefit analysis that their peers in England had done. Insurance companies deferred to physicians to establish standards of care and therefore what would be covered in insurance plans. Physicians continued providing the service and insurance companies continued to reimburse it. According to Hodges, in the US, physicians commonly performed newborn circumcisions for what they called congenital phimosis. They billed insurance companies for the procedure using diagnostic code 605: "redundant prepuce and phimosis." As a result, rates of circumcision in the US continued to climb throughout the 1950s, while those in England fell markedly.

Routine circumcision of infants got a boost in the US from pediatrician Benjamin Spock, whose popular book *The Common Sense Book of Baby and Child Care*, first published in 1945, endorsed circumcision. Spock stated that he thought circumcision was a good idea, especially if most of a person's peers were circumcised, because that makes a person feel socially regular. Pediatrician Sorrells explains that Spock reversed course in 1989 and became firmly opposed to circumcision, but by then his views had already left their mark. In the US, circumcision of newborn males became almost universal by the late 1960s, with rates in some parts of the country exceeding ninety percent. Hodges makes the point that by the 1990s, the majority of US doctors had never even seen a human penis with its foreskin intact. Even in textbooks, US doctors were likely to encounter images of penises where the foreskin is either absent fully or incompletely covering the glans. In fact, the only time a US doctor would see an image of a penis fully covered by a foreskin is in images that depict so-called phimosis. According to Hodges, as a result of cultural biases, many of the images of phimosis found in the US medical literature would appear normal to Europeans viewing the same images.

In 2025, doctors in Europe recognize cases of true pathological phimosis, which may require circumcision. True phimosis is due to a rare dermatological condition called balanitis xerotica obliterans, or BXO, that typically requires microscopic examination of the foreskin tissue to diagnose. Steve Donnell, a pediatric surgeon practicing medicine in England, estimates the rate of true phimosis, resulting from BXO and requiring circumcision, to be one percent.

The Evolving Views of the American Academy of Pediatrics

Despite the long history and widespread prevalence of circumcision of newborns in the US, it was only around 2012 that official medical bodies, such as the American Academy of Pediatrics, or AAP, endorsed the practice a health measure. When the AAP first weighed in on the issue, in 1971, they concluded there are no valid medical indications for circumcision in a newborn. The AAP maintained that position until 1989, when they began to shift their views on the risks versus benefits of circumcision. As the AAP explained in a report from that year, that shift came about primarily as a result of extensive research on available medical papers showing that circumcision may reduce the risk of urinary tract infections and lower the risk of contracting sexually transmitted diseases. On the basis of that new evidence, the AAP concluded that newborn circumcision has potential medical benefits and advantages as well as disadvantages and risks. As a result of that ongoing debate, in 1999, the AAP again reviewed the risks and benefits of circumcision and concluded that there are potential medical benefits of newborn male circumcision. However, they also state that the data are not sufficient to recommend routine newborn circumcision.

In 2012, the AAP issued a new position statement, concluding that the preventive health benefits of circumcision of male newborns outweigh the risks of the procedure. The specific benefits they identified were the prevention of urinary tract infections, acquisition of HIV, transmission of some sexually transmitted infections, and penile cancer. The AAP also stated that even though the health benefits of circumcision are not great enough to recommend routine circumcision, they are still valid enough for the procedure to be made available to all families and allow third-party payment for the procedure. That additional point about third-party payments reflects the fact that, in the wake of the 1999 statement, a number of US states elected to remove Medicaid coverage for the procedure, and many private insurers did the same. The AAP stated that the change in its recommendations since 1999 had much to do with research published since that time. In particular, they cite three large randomized controlled trials that found that circumcision of adult males in South Africa, Uganda, and Kenya reduced their risk of contracting HIV from a female partner by forty to sixty percent, from an absolute rate of 2.49 percent to 1.18 percent.

The AAP's 2012 statement proved to be controversial, especially internationally. In 2013, physicians, primarily pediatricians, from Europe and Canada published a critical review of the AAP's report and accused the eight AAP task force members of cultural bias reflecting the fact that male circumcision is the statistical norm in the United States. The pediatricians concluded that only one of the arguments put forward by the AAP has some relevance in relation to infant male circumcision, namely, the possible protection against urinary tract infections. However, the pediatricians point out that urinary tract infections can also easily be treated with antibiotics, a much less invasive solution. According to the pediatricians' 2013 report, the other health benefits the AAP purported, including protection against HIV and other STIs, as well as penile cancer, do not have as much merit or relevance in a Western context, and are not enough to justify surgery before people can decide for themselves. In turn, the AAP responded to that critical review with their own accusations of cultural bias, asserting that the mostly European authors of the review are biased against circumcision since the European population is largely uncircumcised. The AAP further accused the Europeans authors of espousing opinions that reflect a review of the literature that is not comprehensive, systematic, or unbiased.

Ethics of Non-Therapeutic Infant Circumcision

Today, as of 2025, the ethics of routine, non-therapeutic infant circumcision continue to be a subject of heated debate. The AAP's position is that minors in the US are not considered competent to provide legally binding consent regarding their healthcare, and that parents therefore are entitled to make health care decisions on their behalf. By contrast, pediatric medical associations outside the US, including in The Netherlands, Denmark, Germany, Canada, England, Australia, and New Zealand, have issued statements opposing routine,

nontherapeutic infant circumcision, partly on ethical grounds. Overall, those groups find that the benefits of circumcision, if any, do not outweigh the risks of non-therapeutic infant circumcision, which can include permanent disfigurement and, in rare cases, amputation of the penis or even death. They further argue that performing surgery to remove genital tissue from infants who cannot give consent is unethical. The Royal Dutch Medical Association, for instance, calls circumcision a violation of children's rights to autonomy and bodily integrity. The British Medical Association states that circumcising for therapeutic reasons is unethical when there are alternatives for circumcision that are less invasive and work just as effectively. Furthermore, the Danish Medical Association explains that circumcising boys with no real medical reasoning should stop as it is medically unethical.

Researchers who study bioethics have also weighed in on the ethics of newborn circumcision. For instance, Brian Earp, a researcher who studies bioethics and is affiliated with the University of Oxford in Oxford, England, and Robert Darby, a medical historian from Australia, argued in a 2015 article that it is unethical to cut off a substantial part of a child's genitals in the absence of medical necessity and without informed consent. Circumcision, they claim, exposes the child to unnecessary surgical risk. Earp and Darby note that in 2011 alone, in a children's hospital in Birmingham, England, around a dozen infant boys going through non-therapeutic circumcision experienced life-threatening hemorrhage, shock, or sepsis. They also argue that circumcision of newborns disregards the potential significance of the tissue to the person as an adult.

On the other side of the ethical divide are proponents of routine infant circumcision, such as Brian Morris, a researcher and professor at the University of Sydney in Sydney, Australia, who likens circumcision to vaccination and argues that the benefits of circumcision to future health, as outlined by the AAP and the CDC, outweigh the risks. To not vaccinate given the benefits, supporters claim, would be unethical. Researchers who study bioethics tend to agree that vaccination does not violate a child's rite to bodily autonomy, though whether circumcision is truly analogous to vaccination is a subject of ongoing debate.

Several non-profit groups oppose routine, non-therapeutic infant circumcision on both medical and ethical grounds. Marilyn Milos, who was a nursing student at the time, was extremely troubled by the first circumcision she witnessed, and so in 1985 she founded the group National Organization of Circumcision Resource Centers, or NOCIRC, to raise awareness of the issue in the US. In 1995, George C. Denniston, a former physician and professor, founded the nonprofit organization Doctors Opposing Circumcision in response the US's routine approach to circumcision.

Making Sense of a Cultural Enigma

Though circumcision is an ancient cultural practice, the practice of routine, non-therapeutic infant circumcision began to grow in the nineteenth century, and primarily in English-speaking countries. The US and England shared a similar history with regard to circumcision up until the post-World War II period. They were both influenced by the writings of Sayre, the orthopedic surgeon from the US who, in 1870, first popularized the notion that a tight foreskin, called phimosis, could cause serious diseases. Both countries began to practice routine infant circumcision. Around 1950, the paths of the two nations began to diverge, mainly because of the differing reception of Gairdner's 1949 report and the different types of medical systems in the US and England. Today, in 2025, the US remains the sole country in the Western, industrialized world that still circumcises a majority of its newborn males. The fact that panels of medical experts in the US and the rest of the world have looked at the same evidence and come to starkly different conclusions about the value of routine infant circumcision suggests that cultural differences matter as much as scientific evidence when it comes to assessing the value of a controversial medical practice.

Sources

1. Anand, K. J., & Hickey, P. R. (1987). "Pain and Its Effects in the Human Neonate and Fetus." *The New England Journal of Medicine* 317 (1987): 1321–9.
2. Benatar, Michael, and David Benatar. "Between Prophylaxis and Child Abuse: The Ethics of Neonatal Male Circumcision." *American Journal of Bioethics* 3 (2003): 35–48.
3. Bertwistle, A. P. "Juvenile Circumcision: A Plea for a Standardised Technique." *The Lancet* 225 (1935): 85–6.
4. Blank, Susan, Michael Brady, Ellen Buerk, Waldemar Carlo, Douglas Diekema, Andrew Freedman, Lynne Maxwell, and Steven Wegner. "Circumcision Policy Statement." *Pediatrics* 130 (2012): 585–6. https://publications.aap.org/pediatrics/article/130/3/585/30235/Circumcision-Policy-Statement?autologincheck=redirected (Accessed April 12, 2023).
5. Blank, Susan, Michael Brady, Ellen Buerk, Waldemar Carlo, Douglas Diekema, Andrew Freedman, Lynne Maxwell, and Steven Wegner. "Male Circumcision." *Pediatrics* 130 (2012): e756–85. https://publications.aap.org/pediatrics/article/130/3/e756/30225/Male-Circumcision (Accessed April 12, 2023).
6. Carpenter, Laura M. "On Remedicalisation: Male Circumcision in the United States and Great Britain." *Sociology of Health & Illness* 32 (2010): 613–30. https://onlinelibrary.wiley.com/doi/full/10.1111/j.1467-9566.2009.01233.x (Accessed April 12, 2023).

7. Cold, Christopher J., and John R. Taylor. "The Prepuce." *British Journal of Urology* 83 (1999): 34–44.
8. Darby, Robert. “The Sorcerer's Apprentice: Why Can't We Stop Circumcising Boys?” *Contexts* 4 (2005): 34–9. https://journals.sagepub.com/doi/pdf/10.1525/ctx.2005.4.2.34 (Accessed April 12, 2023).
9. Darby, Robert “Targeting Patients Who Cannot Object? Re-Examining the Case for Non-Therapeutic Infant Circumcision.” *SAGE Open* 6 (2016).
10. Darby, Robert. "Pathologizing Male Sexuality: Lallemand, Spermatorrhea, and the Rise of Circumcision." *Journal of the History of Medicine and Allied Sciences* 60 (2005): 283–319.
11. Darby, R. “A Surgical Temptation: The Demonization of the Foreskin and the Rise of Circumcision in Britain.” *Sexuality Research and Social Policy Journal of NSRC* 3 (2006): 50–2.
12. Darby, Robert. "The Masturbation Taboo and the Rise of Routine Male Circumcision: A Review of the Historiography." *Journal of Social History* 36 (2003): 737–57.
13. Daugherty, Greg. “Dr. John Kellogg Invented Cereal. Some of His Other Wellness Ideas Were Much Weirder.” *History Channel*. Last Modified March 28, 2023. https://www.history.com/news/dr-john-kellogg-cereal-wellness-wacky-sanitarium-treatments (Accessed April 12, 2023).
14. Doctors Opposing Circumcision. “Medical Organization Statements on Circumcision.” Doctors Opposing Circumcision. https://www.doctorsopposingcircumcision.org/for-professionals/medical-organization-statements/ (Accessed April 12, 2023).
15. Donnell, Steve C. “Diagnosis and Treatment of Phimosis." In *Male and Female Circumcision: Medical, Legal, and Ethical Considerations in Practice*, eds. George C. Dennistron, Frederick Mansfield Hodges, and Marilyn Fayre Milos, 63–7. New York: Kluwer Academic/Plenum Publishers, 1999.
16. Dunsmuir, WD, and E. M. Gordon. "The History of Circumcision." *BJU International* 83 (1999): 1–12.
17. Earp, Brian D. "The AAP report on Circumcision: Bad Science + Bad Ethics = Bad Medicine." *Practical Ethics* (2012). http://blog.practicalethics.ox.ac.uk/2012/08/the-aap-report-on-circumcision-bad-science-bad-ethics-bad-medicine/ (Accessed April 12, 2023).
18. Earp, Brian D., and Robert Darby. "Does Science Support Infant Circumcision." *Skeptic* 2 (2015): 23–30. https://www.researchgate.net/publication/269899744_Does_Science_Support_Infant_C (Accessed April 12, 2023).

19. Earp, Brian D., and Robert Darby. "Circumcision, Autonomy and Public Health." *Public Health Ethics* 12 (2017): 64–81.
20. Frisch, Morten, Yves Aigrain, Vidmantas Barauskas, Ragnar Bjarnason, Su-Anna Boddy, Piotr Czauderna, Robert PE de Gier, Tom P.V.M. De Jong, Günter Fasching, Willem Fetter, Manfred Gahr, Christian Graugaard, Grom Greisen, Anna Gunnarsdóttir, Wolfram Hartmann, Petr Havranek, Rowena Hitchcock, Simon Huddart, Staffan Janson, Poul Jaszczak, Christoph Kupferschmid, Tuija Lahdes-Vasama, Harry Lindahl, Noni Macdonald, Trond Markestad, Matis Märtson, Solveig Marianne Nordhov, Heikki Pälve, Aigars Petersons, Feargal Quinn, Niels Qvist, Þráinn Rósmundsson, Harri Saxen, Olle Söder, Maximillan Stehr, Volker C.H. von Loewenich, Johan Wallander, Rene M H Wijnen. “Cultural Bias in the AAP’s 2012 Technical Report and Policy Statement on Male Circumcision." *Pediatrics* 131 (2013): 796–800. https://www.researchgate.net/publication/236061575_Cultural_Bias_in_the_AAP's_201 (Accessed April 12, 2023).
21. Gairdner, Douglas. "The Fate of the Foreskin: A Study of Circumcision." *British Medical Journal* 2 (1949): 1433–7. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2051968/?page=1 (Accessed April 12, 2023).
22. Glick, L. B. *Marked in your Flesh: Circumcision from Ancient Judea to Modern America.* New York: Oxford University Press, 2005.
23. Gollaher, David L. *Circumcision: A History of the World's Most Controversial Surgery.* New York: Basic Books, 2000.
24. Grossman, Elliot, & Posner, Norman Ames “Surgical Circumcision of Neonates: A History of Its Development.” *Obstetrics & Gynecology* 58(2), 241–246.
25. Hitzeman, Nathan “Newborn Circumcision: The Gomco Method.” *Consultant* 50 (2010). https://www.contemporarypediatrics.com/view/newborn-circumcision-gomco-method (Accessed April 12, 2023).
26. Hodges, Frederick. "A Short History of the Institutionalization of Involuntary Sexual Mutilation in the United States." In *Sexual Mutilations*, 17–40. New York: Plenum Press, 1997.
27. Hodges, Frederick Mansfield. "The History of Phimosis From Antiquity to the Present." In *Male and Female Circumcision*, 37–62. New York: Kluwer Academic/Plenum Publishers, 1999.
28. Hoenig, Sidney B. "Circumcision: The Covenant of Abraham." *The Jewish Quarterly Review* 53, no. 4 (1963): 322–34.
29. Howard, Cynthia R., Howard, Fred M., and Weitzman, Michael L., “Acetaminophen Analgesia in Neonatal Circumcision: The Effect on Pain.” *Pediatrics* 93 (1994): 641–6.

30. Intact America. “Voices – Marilyn Milos, RN.” Intact America. September 20, 2019. https://intactamerica.org/marilyn-milos-rn/ (Accessed April 12, 2023).
31. Kuo, Ramsay L., John S. Wiener, and Cynthia J. Camille. "Caring for the Uncircumcised Penis: What Parents (and You) Need to Know." *Contemporary Pediatrics* 19 (2002): 61–9. https://www.contemporarypediatrics.com/view/caring-uncircumcised-penis-what-parents-and-you-need-know (Accessed April 12, 2023).
32. Morris, Brian J. "Why Circumcision is a Biomedical Imperative for the 21st Century." *BioEssays* 29 (2007): 1147–58.
33. Morris, Brian J., John N. Krieger, Jeffrey D. Klausner, and Beth E. Rivin. "The Ethical Course is to Recommend Infant Male Circumcision—Arguments Disparaging American Academy of Pediatrics Affirmative Policy Do Not Withstand Scrutiny.” *The Journal of Law, Medicine, & Ethics* 45 (2018).
34. Morrisey, Michael A., *Health Insurance*. Chicago: Health Administration Press; Second Edition, 2013.
35. Oxford Reference. “Samuel-Auguste-Andre-David Tissot.” Oxford Reference. https://www.oxfordreference.com/display/10.1093/oi/authority.20110803104727561;j (Accessed April 12, 2023).
36. Pediatrics Affirmative Policy do not Withstand Scrutiny." *Journal of Law, Medicine & Ethics* 45 (2017): 647–63.
37. Remondino, Peter Charles. *History of Circumcision, from the Earliest Times to the Present: Moral and Physical Reasons for Its Performance*. Philadelphia and London: F.A. Davis, 1891.
38. Sayre, Lewis Albert. “Art. XXXVI. –– Partial Paralysis from Reflex Irritation, Caused by Congenital Phimosis and Adherent Prepuce.” *The American Journal of the Medical Sciences* 60 (1870): 220–1.
39. Sayre, Lewis Albert. “Spinal Anaemia With Partial Paralysis and Want of Co-ordination, from Irritation of the Genital Organs.” *The Transactions of the American Medical Association* 26 (1875).
40. Sayre, Lewis Albert. “On the Deleterious Results of a Narrow Prepuce and Preputial Adhesions.” Reprinted from *Transactions of the Ninth International Medical Congress*, vol. 3 (1887). Philadelphia: Wm. F. Fell & Company, 1888.
41. Science Museum. “Joseph Lister’s Antisepsis System.” Science Museum. October 14, 2018. https://www.sciencemuseum.org.uk/objects-and-stories/medicine/listers-antisepsis-system (Accessed April 12, 2023).
42. Seattle Children’s. “Foreskin Care Questions.” Seattle Children’s. https://www.seattlechildrens.org/conditions/a-z/foreskin-care-questions/#:~:text=At%20birth%2C%20the%20foreskin%20is,over%205%20to%201 (Accessed April 12, 2023).

43. Shapiro, Ellen. “American Academy of Pediatrics Policy Statements on Circumcision and Urinary Tract Infection.” *Reviews in Urology 1 (1999): 154–6.* *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1477524/* (Accessed April 12, 2023).
44. Smith, Dawn K., Allan Taylor, Peter H. Kilmarx, Patrick Sullivan, Lee Warner, Mary Kamb, Naomi Bock, Bob Kohmescher, and Timothy D. Mastro. "Male Circumcision in the United States for the Prevention of HIV Infection and Other Adverse Health Outcomes: Report from a CDC Consultation." *Public Health Reports* 125 (2010): 72–82. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2788411/ (Accessed April 12, 2023).
45. Sorrells, Morris L. "The History of Circumcision in the United States." In *Male and Female Circumcision*, 331–8. New York: Kluwer Academic/Plenum Publishers, 1999.
46. Sorrells, Morris L., James L. Snyder, Mark D. Reiss, Christopher Eden, Marilyn F. Milos, Norma Wilcox, and Robert S. Van Howe. "Fine-Touch Pressure Thresholds in the Adult Penis." *BJU International* 99 (2007): 864–9.
47. Stanford Medicine. “Circumcision: Gomco Technique” Stanford Medicine, New Born Nursery at Lucile Packard Children’s Hospital https://med.stanford.edu/newborns/professional-education/circumcision/gomco-clamp-technique.html (Accessed March 25, 2023).
48. Svoboda, J. Steven, Peter W. Adler, and Robert S. Van Howe. "Is Circumcision Unethical and Unlawful? A Response to Morris et al." *Journal of Medical Law and Ethics* 7 (2019): 75–95. https://www.circumstitions.com/Docs/law-ethics-svoboda-adler-vanhoweJMLE-2019.pdf (Accessed April 12, 2023).
49. Svoboda, J. Steven, and Robert S. Van Howe. "Out of Step: Fatal Flaws in the Latest AAP Policy Report on Neonatal Circumcision." *Journal of Medical Ethics* 39 (2013): 434–41. https://www.researchgate.net/publication/236060629_Out_of_step_Fatal_flaws_in_the (Accessed April 12, 2023).
50. Task Force on Circumcision. “Cultural Bias and Circumcision: The AAP Task Force on Circumcision Responds.” *Pediatrics* 132 (2013): 801–4. https://publications.aap.org/pediatrics/article/131/4/801/31892/Cultural-Bias-and-Circumcision-The-AAP-Task-Force?autologincheck=redirected (Accessed April 12, 2023).
51. The AAP Task Force on Circumcision. “The AAP Task Force on Neonatal Circumcision: A Call for Respectful Dialogue.” *Journal of Medical Ethics* 39 (2013): 442–3. https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=20afce0383b922

(Accessed April 12, 2023).
52. Wallerstein, E. (1985). “Circumcision: The Uniquely American Medical Enigma.” *Urologic Clinics of North America* 12 (1985): 123–32.
53. Wolbarst, Abraham L. "Universal Circumcision as a Sanitary Measure." *Journal of the American Medical Association* 62, (1914): 92–7. https://ia600708.us.archive.org/view_archive.php?archive=/28/items/crossref-pre-1923-scholarly-works/10.1001%252Fjama.1913.04350150053020.zip&file=10.1001%252Fjama.1914 (Accessed April 12, 2023).
54. World Population Review. “Circumcision by Country 2023.” World Population Review. https://worldpopulationreview.com/country-rankings/circumcision-by-country (Accessed April 12, 2023).
55. Yellen, Hiram S. "Bloodless Circumcision of the Newborn." *American Journal of Obstetrics and Gynecology* 30 (1935): 146–147.

Concept