

EGYPTIAN CIRCUMCISION RITES may have been practiced for reasons of hygiene.

he Circumcision Dilemma Physicians in the U.S. are at odds over neonatal circumcision. Is it preventive medicine,

cosmetic surgery or inhumane mutilation? by Edward O. Laumann

he circumcision of newborn boys in the U.S. has been routine practice for more than 60 years, leaving an estimated 100 million of today's males without a foreskin. At the height of the practice in the 1950s and 1960s, the surgery became an automatic extension of hospital birth, especially for the sons of white, middle-class families.

SEX & FATHERHOOD

In the past three decades, however, the debate surrounding routine circumcision has ignited. Proponents in the medical community contend that it is valid prophylaxis against certain forms of cancer and infection, much like vaccination; the detractors—both physicians and activist groups—argue that cutting healthy, sexually responsive tissue from a nonconsenting child is medically unnecessary and may be unethical. The most outspoken of these opponents maintain that circumcision amounts to nothing less than assault and battery. In this atmosphere of controversy, parents must decide whether or not to circumcise—a decision that recent results show may affect the sexuality of their sons throughout adult life.

An Ancient Ritual

Lublished debate on the merits of circumcision raged as early as the fifth century B.C., when Greek historian Herodotus described the millennial-old custom among Egyptians: "They practice circumcision for the sake of cleanliness, considering

it to be better to be clean than comely." The Jews adopted the practice from the Egyptians—but later were forced to hew to the Hellenistic ideal of an intact penis during the reign of Antiochus IV in the second century B.C. The Greeks outlawed circumcision and punished the ritual by death; to conform, some Jews stretched what remained of their foreskins with a weight called the Pondus Judaeus.

The tradition of circumcision survived, however, largely because the Old Testament prescribes it as a sign of the covenant between God and Abraham and his people. The Jewish ritual calls for a small ceremony, the Bris Milah, on the eighth day after birth; throughout Islam, boys are circumcised as well, often during puberty. In 16th-century Ottoman Turkey, the circumcision of the sultan's sons occasioned a lavish festival lasting several weeks, during which thousands of lower-class children underwent circumcision.

Native populations of the Americas, the aboriginal people of Australia and various African tribes also traditionally practiced circumcision, typically for cosmetic reasons or to prepare boys for manhood. Throughout most of the rest of the world, including China, Japan, northern Europe and modern South America, circumcision is uncommon. A survey of young German parents in 1992 revealed that 61 percent did not understand the term.

Remedying Epilepsy and Masturbation

ow then did circumcision, once exclusively a religious and cultural rite, become a routine medical procedure in the hospitals of the U.S.? The custom began in the late 19th century, when practitioners touted circumcision as a remedy for ills ranging from epilepsy to asthma and also as a deterrent to masturbation, which many in the Victorian era believed to be harmful to health and sanity. One booster was John Harvey Kellogg of breakfast cereal fame, who recommended circumcision—preferably without anesthetic—as a reliable cure for masturbation in boys.

The practice continued during World War II, when the U.S. military would regularly circumcise soldiers who had trouble with penile irritation and hygiene in sandy or sultry battlegrounds. And the procedure received the imprimatur of the U.S. medical establishment in 1949, when a physician named Eugene Hand published an influential paper describing a lower susceptibility to venereal disease among the circumcised.

By the late 1950s and 1960s, insurance carriers were paying for the surgery, and 80 to 85 percent of all boys born in the U.S. were circumcised. In other English-speaking countries, the situation differed. A 1949 paper by British physician Douglas Gairdner that challenged routine circumcision as being of doubtful value and possibly harmful proved influential among health care policymakers. Whereas British circumcision rates before World War II were comparable to those in the U.S., by 1950 they began a marked decline.

The British National Health Service dropped coverage because it could find no medical benefit from routine circumcision. By 1985 the neonatal circumcision rate in Britain was estimated at 1 percent. Rates in Canada and Australia also tapered off, and only about 20 percent of Australian boys born in 1995 and 1996 underwent the surgery as infants. In the U.S., the rate has decreased somewhat since the 1960s, as the debate over the medical usefulness and the appropriateness of the procedure has seethed; still, in 1996, about 60.2 percent of newborn boys in the U.S. were circumcised, at an estimated annual cost of \$150 million to \$270 million.

Continuing popularity of routine circumcision in the U.S. can be partly attributed to its promotion as a simple public health measure that guards against a variety of diseases. That idea was strengthened in 1989, when the American Academy of Pediatrics (AAP) published a position paper that noted both risks and medical advantages to circumcision procedures.

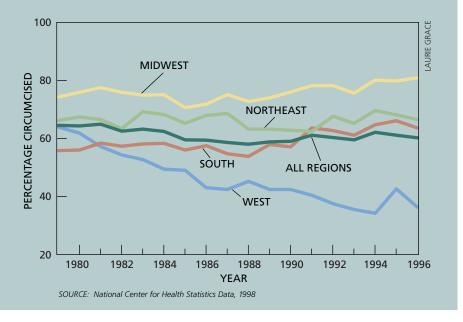
The 1989 AAP Task Force on Circumcision cited prevention of penile cancer as one benefit of circumcision. Several studies of groups of penile cancer patients in the U.S. have found that very few or none of the victims were circumcised as infants, an indication that neonatal circumcision protects against the disease. Parents considering circumcision as a preventive measure should be aware, however, that penile cancer is rare; incidence of the disease in uncircumcised men in the U.S. is estimated at perhaps 2.2 cases or fewer per 100,000 men a year.

In addition, there is more to penile cancer risk than simple circumcision status alone. Penile cancer rates among uncircumcised men also vary widely from country to country. Some developing nations experience rates as high as three to six cases per 100,000 uncircumcised men per year, markedly higher than the U.S. estimate. In Denmark, however, the overall incidence of penile cancer is only about 0.8 case per 100,000 men a year—although just 1.6 percent of the male population is circumcised. And in Japan, where circumcision is also rare, penile cancer rates dip to 0.3 case per 100,000 men a year, lower than the overall U.S. incidence (circumcised and uncircumcised) of 0.9 to 1.0 case per 100,000 men annually. Clearly, critics argue, other factors play a large role—they point to smoking, unprotected sex and poor hygiene as potential culprits for the discrepancies.

A second benefit of circumcision is a decreased rate of urinary tract infection (UTI) in circumcised infants. Studies that surveyed the records of several hundred thousand boys born in U.S. Army hospitals in the 1980s revealed approximately a 10-fold greater chance of hospitalization for UTI in the first year of life for uncircumcised than for circumcised boys. The hospitalization rate for UTI was about 1.4 percent of uncircumcised boys; because approximately 1 to 2 percent of UTIs in infants lead to serious kidney problems, many doctors argue for prevention by routine circumcision.

On the other side of the debate, some physicians question the design of these studies, which involved paging back through old medical records rather than observing a group of children prospectively. In comparison, a study that monitored a group of nearly 60,000 Canadian boys found that about 0.7 percent of uncircumcised boys were hospitalized for UTI in the first year of life. This rate was about 3.7 times that for circumcised boys. Because so many boys would need to be circumcised to prevent kidney disease in just a few, some opponents believe the risk of complications from the surgery also needs to be considered.

Fueled by a raft of conflicting reports, the connection between circumcision and venereal disease has generated heated debate for decades. Many studies have shown that uncircumcised men are more likely than those who are circumcised to suffer from sexually transmitted diseases (STDs), including gonorrhea, syphilis, herpes, papillomavirus, chlamydia and HIV. Risks for the uncircumcised increased twofold to fivefold for the range of STDs—and as much as eight times for HIV. To confuse matters, other investigations



have detected no link to these diseases. Still other publications suggest that circumcised men actually confront greater risk for STDs—among them, HIV and genital warts.

These studies are prone to methodological problems, though. Often they fail to control for social factors that might influence STD rates, including sexual practices and socioeconomic status. My own group examined data from the 1992 National Health and Social Life Survey (NHSLS), in which we surveyed a representative cross section of the U.S. population about health issues. This investigation allowed us to control for confounding factors such as religion, the number of sexual partners and education. Our analysis showed no discernible prophylactic effect of circumcision against various STDs, including chlamydia, gonorrhea and herpes. Certainly the relationship between STDs and circumcision does not seem particularly strong. And other, betterproved public health measures against STDs-such as regular condom useare less invasive.

In 1999 the AAP reevaluated the medical arguments for circumcision. Its Task Force on Circumcision found that data on STDs in general are conflicting; they state that although circumcision does seem to lower the rate of HIV infection, behavioral risk factors are far more important. The task force also concluded that neonatal circumcision does decrease the incidence of UTI in infancy and of penile cancer in adulthood but that the number of males affected is small. Based on these findings, the AAP reversed its neutral stance on newborn circumcision, stating that evidence of medical benefits from the procedure is not sufficient to recommend routine circumcision of newborns.

Anatomy of a Circumcision

For many parents, whether their reasons to circumcise their sons are religious, cosmetic or medical, the most anxiety-laden aspect of the decision is the thought of the procedure itself. Circumcision is quick but also painful, and the image of knife against penis can be unsettling.

Done properly, circumcision takes from three to 10 minutes. Each procedure begins with the same first step: the foreskin is separated from the glans, to which it adheres tightly in infants. Next, a clamp is applied to shield the glans and crush the foreskin where the cut will be made, in an effort to seal blood vessels and prevent bleeding.

In the Jewish ceremony of Bris Milah, practitioners known as Mohels often use a simple metal clamp called a Mogen, which they slip onto the stretched foreskin and tighten. The glans is protected on one side of the clamp, and the cut is made on the other. This procedure is one of the quickest and is often performed in the home. Some Mohels use a traditional shield that does not crush the foreskin—a faster method but one that may increase bleeding.

In hospital circumcisions, the Gomco clamp is popular. After cutting a slit in the foreskin with scissors, the physician inserts a metal bell to protect the glans and draws the foreskin up around

RATES OF CIRCUMCISION vary widely by region, but the national rate has decreased slightly since 1979.

it [*see illustration on opposite page*]. The clamp crushes a circular section, and then a cut is made. The Plastibell device is similar, except that a string crushes the foreskin against a plastic bell. The bell remains in place for a few days, until the foreskin dies off and is sloughed away.

All these procedures draw criticism, even from the mainstream medical community, because they cause considerable pain, particularly during the first step of loosening the foreskin. A recent study showed that even four to six months later, babies circumcised without anesthesia exhibit greater pain reactions to vaccination than uncircumcised boys or babies whose circumcision pain was attenuated with anesthetics. Although many circumcisions are still done without anesthesia, most professional guidelines for physicians recommend attention to pain relief during the procedure.

Pain relief may come from topical anesthetic cream or injected local anesthetic. The latter option alleviates the pain of circumcision more effectively; although the injection hurts, studies have shown it to be less painful than the operation. Although this finding may seem obvious, the medical establishment believed until recently that the undeveloped nervous system of the newborn infant was incapable of experiencing pain. No method has been found yet that completely eliminates the discomfort of the surgery.

Just as doctors in the U.S. spar over the benefits of circumcision, they quarrel over the magnitude of the risks. Experts typically cite immediate complication rates ranging from 0.2 to 5 percent of procedures. These complications involve mostly minor bleeding, local infection or removal of too little skin, requiring repeat circumcision. Inadvertent damage to the glans or removal of too much skin happens more rarely. A few studies have reported a higher incidence of bleeding, in up to about 35 percent of cases.

Critics often mention another uncomfortable consequence of circumcision: the irritation experienced by the delicate glans of the penis once the protective foreskin is gone. Over time, the surface of the glans does become tougher and thicker, but initially it is quite sensitive to irritation by constant rubbing against the diaper and ammonia generated by the bacteria in urine. Inflammation of the glans and urethral opening occurs in about 8 to 31 percent of circumcised infants.

Conversely, about 4 to 18 percent of uncircumcised boys experience inflammation of the foreskin and sometimes of the glans. In infants the foreskin adheres tightly to the glans, and the area requires no special care. As the boy grows, the foreskin and glans will slowly separate, but this may take a number of years. When the foreskin can be retracted easily, many doctors recommend washing underneath regularly.

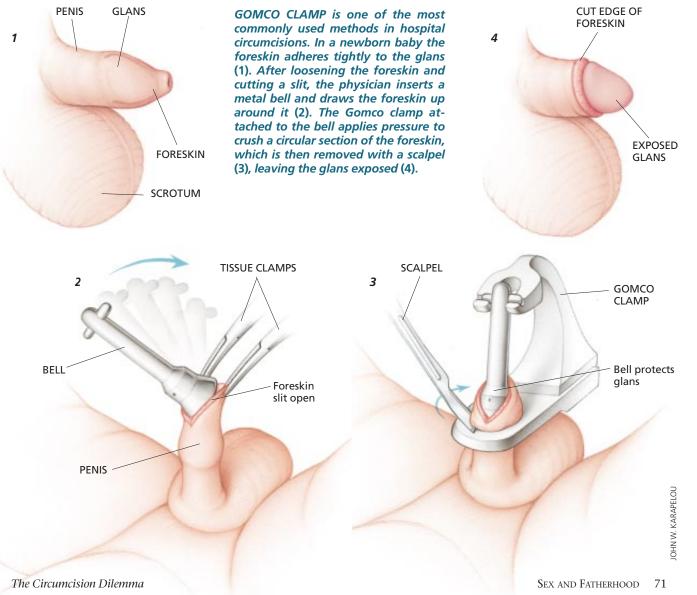
The foreskin should not be forcibly retracted before it has separated naturally, as this can cause scarring, which may lead to a condition called phimosis. In phimosis—from the Greek for "muzzling"—the foreskin is too tight on the penis, sometimes interfering with urine flow. As many as 1 to 10 percent of boys who keep their foreskins as infants may require circumcision at a later age—usually under general anesthesia—because of recurrent inflammation or phimosis.

The Decision

Looking at their baby boy, parents may not envision the child's future sex life, but perhaps they should consider it. Whereas a newborn's foreskin is just a few millimeters long, in an adult male there may be as much nerve-rich tissue in the foreskin as along the entire shaft of the penis. Some critics of routine circumcision argue that loss of this tissue greatly diminishes sexual pleasure [see "Anticircumcisionists Decry a Male's First Sacrifice," on page 73].

Research by my own group, using the NHSLS data, has revealed that circumcision does indeed have an impact on sex in adulthood. Contrary to the Victorian notion that circumcision weakens sex drive and prevents masturbation, we found that circumcised men actually engage in a somewhat more elaborate repertoire of sexual practices than uncircumcised men do. In particular, among whites the likelihood of a circumcised man masturbating at least once a month was 1.76 times that of an uncircumcised man; the lifetime odds of a circumcised white male receiving oral sex were similarly elevated.

Our findings may reflect a greater aesthetic appeal of the circumcised penis in cultures where circumcision is the norm, as similar trends were not found among black and Hispanic men. In our study sample, 81 percent of white men were circumcised, as op-



Copyright 1999 Scientific American, Inc.

HOSPITAL CIRCUMCISION may become less routine as parents weigh the medical benefits and risks. Concerns remain about the pain from the procedure, even when an anesthetic is used.

posed to only 65 percent of black men and 54 percent of Hispanic men. The more elaborate set of behaviors in circumcised men may also support the hypothesis that the circumcised penis is less sensitive to coitus, leaving circumcised men more likely to seek other forms of stimulation.

The broader sexual practices of circumcised men may help them maintain an active sex life as they age. We discovered that among men aged 45 to 60, circumcised men were about half as likely as uncircumcised men to have recently experienced a cluster of sexual difficulties, including trouble achieving or maintaining an erection, anxiety about sexual performance, and a lack of interest or enjoyment in sex. We speculate that circumcised men, who engage in a wider repertoire of practices than their uncircumcised peers, are more familiar with alternative routes to stimulation and have more options for expressing their sexuality should they encounter difficulties.

Parents thus face a raft of issues when they contemplate circumcision for their sons, from concerns about pain and potential medical benefits and risks to questions about their sons' sex lives. In 1983 at Children's Hospital of Denver Mark S. Brown and Cheryl A. Brown looked at what factors parents actually take into account when they make their decision.

The researchers found that the strongest determinant of whether a boy was circumcised was the circumci-



sion status of his father. Among boys whose fathers were circumcised, 90 percent were circumcised as well, compared with only 23 percent of boys whose fathers were not circumcised. Parents who chose circumcision cited religious, social and aesthetic reasons—such as the desire for the boy to fit in with male relatives or peers—about as frequently as they cited medical reasons.

In the late 1990s arguments about fitting in with peers may lose their sway, as the prevalence of circumcision has fallen from the record highs of the 1950s and 1960s. In 1996 about 60.2 percent of newborns in the U.S. were circumcised; the rates were still high in the Midwest, at 80.9 percent, but had dipped to 36.3 percent in the West. The low numbers for the West may reflect an influx of immigrants from cultures that do not traditionally circumcise, as well as the influence brought to bear by the anticircumcision movement. Among doctors, the debate continues. Whereas U.S. health insurers continue to provide coverage for routine circumcision, professional medical associations in Canada, Britain and Australia have published position papers in the past three years advising against the practice. And in 1999 the AAP took a step in that direction as well, in concluding that there is insufficient evidence of medical benefit to recommend routine neonatal circumcision. The rest of the medical profession in the U.S., however, still appears sharply divided on this issue.

In the end, parents are left remarkably alone to decide whether neonatal circumcision is right for their sons. Just about the only thing professionals do agree on is that parents' decisions about circumcision should be well informed, as this five-minute procedure at birth may have an effect that lasts throughout their son's life.

The Author

EDWARD O. LAUMANN has researched sexual behavior and how the bonds of friendship and marriage help to form communities. He chairs the department of sociology at the University of Chicago, where he has also served as dean and provost. After receiving his doctorate from Harvard University in 1964, Laumann first joined the faculty of the University of Michigan's department of sociology, before moving to Chicago in 1972. He is the principal investigator of the 1992 National Health and Social Life Survey, the results of which have been written up in two books. He is author of 12 books; when not writing, he fanatically plays squash.

Further Reading

CIRCUMCISION: AN AMERICAN HEALTH FALLACY. Edward Wallerstein. Springer, 1980.

- AMERICAN ACADEMY OF PEDIATRICS: REPORT OF THE TASK FORCE ON CIRCUMCISION. *Pediatrics*, Vol. 84, No. 2, pages 388–391; August 1989.
- ROUTINE NEONATAL CIRCUMCISION: A REAPPRAISAL. Thomas E. Wiswell in American Family Physician, Vol. 41, No. 3, pages 859–863; March 1990.
- NEONATAL CIRCUMCISION REVISITED. Fetus and Newborn Committee, Canadian Paediatric Society, *Canadian Medical Association Journal*, Vol. 154, No. 6, pages 769–780; March 15, 1996.
- CIRCUMCISION IN THE UNITED STATES: PREVALENCE, PROPHYLACTIC EFFECTS, AND SEXU-AL PRACTICE. Edward O. Laumann, Christopher M. Masi and Ezra W. Zuckerman in *Journal of the American Medical Association*, Vol. 277, No. 13, pages 1052–1057; April 2, 1997.
- CIRCUMCISION POLICY STATEMENT. American Academy of Pediatrics Task Force on Circumcision in *Pediatrics*, Vol. 103, No. 3, pages 686–693; 1999.

Anticircumcisionists Decry a Male's First Sacrifice

Men may not long for their tonsils or mourn their lost appendix; they may gladly kiss that extra layer of fat around their midsection good-bye. But their foreskin, harvested so early and so easily, may be sorely missed. In the past three decades, a growing grassroots movement has sung the virtues of remaining "intact." While physicians squabble over

surgical risk versus public health, anticircumcision groups have trained their sights on the masses, selling a topic that everyone can readily relate to: sex.

Circumcised men, goes the argument, are missing out. The adult foreskin is rich in nerves; its total length, inside and out, can equal the length of the penis. Ronald Goldman, director of Boston's Circumcision Resource Center, explains that during an erection, the foreskin lies loose along the penis, sliding and providing extra stimulation during intercourse; in contrast, the skin of an erect circumcised penis is tight: "It's like a broomstick—it doesn't have any movable parts."

Furthermore, the foreskin lubricates and protects the glans, which thickens once it is exposed by circumcision. All of this, circumcision opponents say, means that circumcised men cannot experience sex as fully as intact men. In support, they cite anecdotal evidence from men who were circumcised as adults, some of whom assert that sex after circumcision is disappointing.

As with every other aspect of circumcision, disagreements abound about the merits of this argument—many doctors maintain that the circumcised penis offers plenty of sensitivity. In the 1960s Virginia Johnson and William Masters performed neurological tests on circumcised and uncircumcised men and could not discern a difference in response to light touch to the penis, especially the glans. "There really are no other studies that address this issue," says Thomas Wiswell, a physician at Thomas Jefferson University. "All you have are a handful of testimonials and that's it—there is no science."

Wiswell's own history demonstrates the ever changing nature of the circumcision debate. During the 1970s, he actively opposed routine circumcision. "We were zealots—admittedly so," he says. But after he spearheaded research on urinary tract infections in uncircumcised boys, he came to the conclusion that the medical benefits of the procedure outweigh arguments against it. "I was trained as a pediatrician; I am an advocate for the protec-

by Mia Schmiedeskamp



SUPPORT GROUP for men who feel they have experienced problems resulting from circumcision.

tion of children," Wiswell avers. "I didn't reach this decision lightly."

Neither do anticircumcisionists take their position lightly they can be vocal and even confrontational in their opposition. Perhaps the one area where their response is clearly tempered, though, is the delicate topic of religious circumcision. Some critics, including

Goldman, feel that this question may be best addressed within individual religious groups, because the imperatives for Jewish and Muslim parents are so different from the secular concerns of medicine and sex life.

If opponents are right, and circumcision cuts so close to men's sexuality, why aren't tens of millions of dissatisfied customers storming doctors' offices? Why do so many circumcised men choose to circumcise their sons? Goldman contends that American men don't know much about the role of the foreskin, so they don't know what they have lost. And those who suspect they are lacking something may be in denial. "What man wants to hear that he's missing a normal, natural part of his penis?" Goldman remarks.

) ome men, though, are indeed distressed by their lack of foreskin—feeling damaged, betrayed, sexually incomplete. A few even claim that they can recall the traumatic event of circumcision itself. Support groups where these men can express their frustration and rage have sprung up around the country. Some men have even tried to get their lost foreskins back, gradually stretching the penile skin over the course of many months with weights or taut elastic bands. While these men nurse their psychic wounds, opponents of circumcision focus their energy on sparing the next generation. They hope parents will consider the trauma and potential lifelong sexual ramifications of the operation and opt against circumcision. Other activists fight to take the decision away from parents altogether. They argue that until the child is old enough to consent, the practice is simply unethical. Just one more thing for new moms and dads to think about.

MIA SCHMIEDESKAMP received her doctorate in biochemistry from the University of Washington. She received a fellowship in science writing from the American Association for the Advancement of Science and is now a writer in Seattle.