



Commentary: Do the benefits of male circumcision outweigh the risks? A critique of the proposed CDC guidelines

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A commentary on

Do the benefits of male circumcision outweigh the risks? A critique of the proposed CDC guidelines

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A recent article by ethicist Brian Earp (1) criticizing draft recommendations by the Centers for Disease Control and Prevention (CDC) on the topic of male circumcision (MC) (2) is seriously flawed. Earp seems most concerned about the preservation of the foreskin at all costs. His claims that the foreskin protects the glans and has properties important for sexual pleasure are fallacious. A recent rigorous systematic literature review of penile structures found that sexual pleasure involves neuroreceptors in the glans, not the foreskin (3). It further found that sexual pleasure is derived from exposure of the glans by circumcision or, in uncircumcised men, by foreskin retraction during erection (3). The density of Meissner's corpuscles in the foreskin *decreases* at puberty and free nerve endings do not correlate with sexual response (3). Research found that the foreskin was ranked last for sexual pleasure and for the density and size of sensory nerve endings when compared with eight other hairless skin types of the body (4).

A detailed systematic review of all studies rated by quality found circumcision had no adverse effect on sexual function, sensitivity, or sensation (5). This was supported by a recent large UK study (6). A large randomized controlled trial found, if anything, sex for men and their female partners was better after circumcision (7). A meta-analysis of all sexual dysfunctions found these did not differ in frequency between circumcised and uncircumcised men (8).

Earp uses as support for his views an opinion piece that was shown to be seriously flawed (9). Those authors subsequently reported finding women preferred circumcised men for sexual activity (10). Their survey also included 28 homosexual men, finding an overall preference for uncircumcised partners, consistent with engagement in foreskin-related sexual activities, such as “docking,” that require the male homosexual partner to be uncircumcised.

Earp assumes that benefits of circumcision do not begin until the boy is older and becomes sexually active. But evidence enunciated by the CDC after its detailed systematic review of the literature shows neonatal circumcision confers immediate benefits. These include protection against urinary tract infections that in infancy, in particular, can cause permanent kidney damage and (rarely) death (11). Other protections in infancy, childhood, and throughout life include reduction in inflammatory skin conditions, phimosis, paraphimosis, foreskin trauma, inferior hygiene, and smegma, especially in circumstances when bathing is infrequent or washing after sexual intercourse does not usually take place (12). Neonatal circumcision also avoids the need for later circumcision, for which risk of adverse events is higher (12). Failure to circumcise early in life usually

means it will not happen, even if the male wishes he were circumcised (13). Protection against prostate (14) and penile (15) cancer is greater if circumcision occurs prior to sexual debut.

Earp seems unaware that findings in sub-Saharan Africa of protection against various sexually transmitted infections (STIs), including HIV, during heterosexual intercourse have also been observed in developed countries, such as the USA, the UK, and Australia (12, 16, 17). Although Earp is correct in pointing to sexual intercourse amongst homosexual men as being the primary source of HIV infections in most developed countries, even in such men, those who engage in insertive, but not receptive, anal intercourse are at reduced risk of HIV and syphilis if circumcised (18, 19).

Although the CDC reported that frequency of adverse events seen immediately after infant circumcision are low (0.2–0.4%), Earp claims that the CDC did not consider long-term adverse events. Based on the evidence, loss of the foreskin is not one of these. Earp refers to meatal stenosis, which was reported in a large CDC study of adverse events in U.S. medical settings from 2001 to 2010 to have been seen in only 0.1% (20). There is no good evidence that meatal stenosis differs in prevalence between circumcised and uncircumcised males. The CDC study found adverse events in general were significantly higher in uncircumcised compared with circumcised boys during infancy. These included, respectively, “reconstruction of penis” (64 vs. 15), overall surgical procedures (224 vs. 52), incision of penis (202 vs. 35), disorders overall (1062 vs. 799), other specified disorders of penis (934 vs. 638), gangrene, death, and decay of body tissue (30 vs. 13) (20).

Earp's concerns about relative vs. absolute risk reduction are fully accounted for in the risk-benefit analysis (12) cited in the CDC's report. This analysis presented data on all benefits and risks then calculated a combined figure that found benefits exceed risks by 100 to 1, and that over the lifetime 1 in 2 uncircumcised males will be affected by a medical condition attributable to their foreskin (12). Although most adverse events of circumcision are easily and immediately treatable with complete resolution, the

conditions and diseases resulting from lack of circumcision range from ones that can be resolved by treatment (often by circumcision) to ones that can lead to substantial morbidity or even death (12). The latter include STIs and potentially fatal conditions, such as from HIV or penile and prostate cancer, and cervical cancer in the female sexual partners.

He refers to deliberations by a 2009 CDC committee about delaying circumcision so as not to violate autonomy, but fails to cite the report's conclusion, namely that, “both a decision to circumcise and a decision to not circumcise are legitimate decisions, and either decision is an appropriate exercise of parental authority on behalf of a minor child.”

Earp's comparison of MC with female genital cutting (which he erroneously terms “female circumcision”) is inappropriate since the latter confers no benefits to health, and especially in its more extreme forms only harms.

Given the benefits of neonatal circumcision and very low risks, neonatal circumcision cannot be considered “unnecessary.” Rather, logic dictates that it would be unethical not to recommend neonatal circumcision. Parents have a legal right to make decisions in the best interest of the health of their children. These include vaccination, healthy diet, shelter, education, and, in the case of males, circumcision. Opponents of MC use as support anecdotes and low quality studies that have generally been the subject of substantial published criticisms. Because of the evidence it is not surprising that comprehensive literature reviews (not cherry-picked studies) by both the CDC and the American Academy of Pediatrics have led to the endorsement of both neonatal and, in the case of the CDC, later age MC. Although debate on any issue is to be welcomed, a reader might wonder about the veracity of arguments by a lone ethicist with a history of opposition to circumcision in questioning the authority of such major health bodies as the CDC and AAP? Unlike opponents, the CDC and AAP used an evidence-based approach involving a thorough review of research findings over many years, giving emphasis to high quality studies. As a result, the conclusions they reached should be regarded as reliable.

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