

# Clearinghouse on Male Circumcision **FOR HIV PREVENTION**

MALECIRCUMCISION.ORG

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## **Research synthesis: Randomised controlled trials on voluntary medical male circumcision**

Three clinical trials conducted in sub-Saharan Africa showed that medically performed circumcision is safe and can reduce men's risk of HIV infection during vaginal sex by about 60 percent.

In each trial, uncircumcised men were randomly assigned to one of two groups. Participants in one group were offered immediate circumcision (the treatment group), while those in the other group (the control group) were offered circumcision at the end of the trial. During regular follow-up visits, each participant received HIV testing and counselling, condoms, and safer sex counselling.

All three trials were halted early because the evidence of a protective effect was so strong that it was considered unethical to ask the study participants in the control group to continue waiting to be circumcised.

The results revealed a much lower rate of new HIV infections among men in the circumcised groups compared to the men assigned to remain uncircumcised during the trials:

- In South Africa, a trial in Orange Farm enrolled 3,000 men ages 18 to 24. The circumcised men were approximately 60 percent less likely to acquire HIV than the uncircumcised men.<sup>1</sup>
- In Uganda's Rakai District, in a study among 4,996 men ages 15 to 49, circumcision reduced the risk of HIV infection by approximately 51 percent.<sup>2</sup>

- In Kenya, 2,784 men ages 18 to 24 joined a study in Kisumu. HIV risk was reduced by approximately 59 percent among those who were circumcised.<sup>3</sup>

Further analyses of the data from these studies suggest an even greater protective effect against HIV. Some participants assigned to be circumcised did not undergo the procedure, while some in the control groups went to other providers to get circumcised before their trial participation had ended. When data on these men were excluded from the analysis, the average reduction in risk of HIV across trials was approximately 66 percent.<sup>4</sup> Similar levels of protection were seen in post-trial follow-up of trial participants for almost five years in Kenya and six years in Uganda, confirming a long-term preventive effect.<sup>4-6</sup>

The only randomised controlled trial to date to investigate whether male circumcision protects women was conducted in Rakai, Uganda. The study was closed early because it was not going to be able to answer the question with sufficient statistical power. The interim results of this clinical trial suggest that if a couple does not abstain from sex until the surgical wound from the man's circumcision has completely healed, the woman may be at increased risk of acquiring HIV if her partner is HIV positive.<sup>7</sup>

A randomised controlled trial conducted in China was the first to assess the effect of male circumcision on HIV in gay men and other men who have sex with men. The trial showed that getting circumcised can reduce the likelihood of HIV acquisition among men who have sex with men who primarily practice insertive anal sex. However, the trial involved 247 men; large-scale trials may be needed to confirm efficacy.<sup>8</sup>

## References

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The **Clearinghouse on Male Circumcision for HIV Prevention** (2009–2024) was a global resource centre designed to expand access to information and resources on male circumcision for HIV prevention. Resources from the Clearinghouse are now available through the **Global HIV Prevention Resource Hub**.