

## **Circumcision HALVES the risk of STDs by reducing levels of bacteria that cause infections**

- **Study shows circumcision is the more hygienic option**
- **Procedure is thought to work because it dramatically reduces growth of bacteria on the penis**

By RachelReilly

Circumcision offers protection against HIV and other viruses because bacteria cannot multiply under the foreskin, a study has found.

It has been known for some time that circumcision reduces the risk of sexually transmitted diseases such as genital warts and herpes, but until now, experts were not entirely sure why. Scientists now think that the surgical procedure drastically alters the living conditions for microorganisms that live on the penis.



Tradition: Circumcision is a rite of passage in Jewish culture

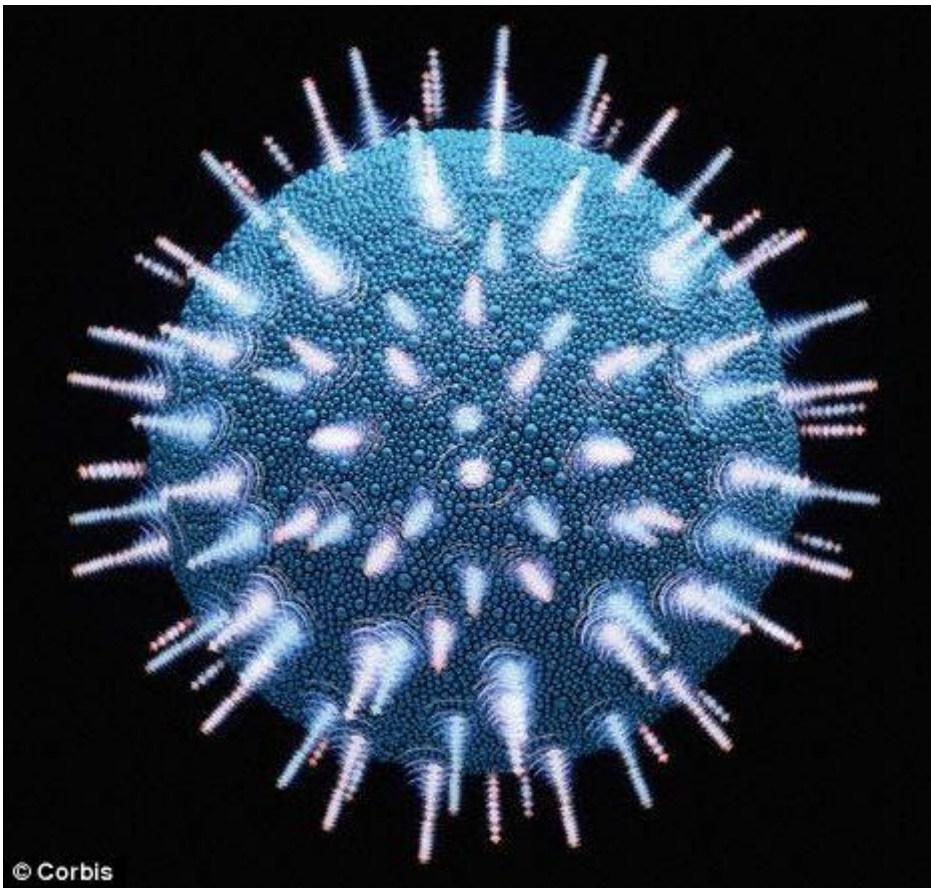
This in turn reduces the risk of catching HIV or other sexually-transmitted diseases by over half.

Lead researcher Dr Lance Price and his colleagues at George Washington University set out to determine whether circumcision significantly alters bacteria growth on the penis.

The research, published in the American Society for Microbiology, used swab samples from a large circumcision trial in Uganda.

The scientists compared samples from uncircumcised men with samples from circumcised men that were taken both before the procedure and one year later.

One year after having undergone the procedure, the total bacterial load had dropped significantly and the prevalence of anaerobic bacteria – organisms which thrive in locations with limited oxygen – declined. Dr Price said: 'The change ... is dramatic. From an ecological perspective, it's like rolling back a rock and seeing the ecosystem change.'



Undergoing the procedure reduces the risk of contracting the HIV virus (pictured) by half

'You remove the foreskin and you're increasing the amount of oxygen, decreasing the moisture - we're changing the ecosystem.'

Future studies plan to further investigate precisely how the penis' living conditions affects HIV transmission by studying links between changes in the conditions and cytokine responses, signalling mechanisms that can activate the immune system.

Dr Price added: 'The work that we're doing, by potentially revealing the underlying biological mechanisms, could reveal alternatives to circumcision that would have the same biological impact. '