Can the Female Condom Be Used More than Once?

The female condom is considerably more expensive than the male condom. Like the male condom, the female condom is currently approved for only one use. If the female condom can be used safely more than once, the cost of each use would decline even if the price of the device itself remained unchanged. Establishing the safety of reusing the device could increase access in resource-poor countries. Although reuse of the female condom is discouraged, this practice has been reported in a number of countries.¹

A consultation of experts convened by the World Health Organization (WHO) and the United Nations Programme on HIV/AIDS (UNAIDS) in June 2000 concluded that data were insufficient to advise on the safety of reuse.² In view of the potential risks during washing or subsequent use, the consultation recommended that all female condoms be disinfected before washing. A draft protocol for disinfecting, washing, drying, storing and re-lubricating the female condom was developed and is currently being evaluated.

Structural integrity

Studies have found that the device remains structurally sound after repeated washing and reuse. In a study by FHI, the structural integrity of the female condom remained well above the standards of the female condom manufacturer, after a single act of intercourse or after up to 10 washes with or without bleach disinfection. Four laboratory tests compared the test condoms with new female condoms (seam tensile strength, water leakage, air burst and tear propagation). More than 300 condoms were washed after a single act of vaginal intercourse, and about 1,000 unused female condoms were washed in the laboratory. The washing procedure used mild soap in warm water and rinsing, followed by pat-drying of both sides of the condom with a towel.³

The Reproductive Health Research Unit (RHRU), University of Witwatersrand, in South Africa, has also studied the structural integrity issue. RHRU found that the device remained sound after multiple washings in the laboratory.⁴ Then, in an RHRU study among women who used the same female condom up to seven times, washing and drying did not seriously affect the structural integrity of the device. In the study, if a condom remained structurally sound after one use and wash, the woman could volunteer to use and wash another new device two times. If that condom remained structurally sound after two washings, she could receive a new condom that could be used and washed up to three times. This
process continued for up to seven uses. Disinfection was not part of the washing protocol. All of the used condoms surpassed standards set by the U.S. Food and Drug Administration for seam tensile strength and air burst, indicating the devices remained structurally sound. However, five holes were detected across all cycles, three of which were detected by the subjects. The holes were not associated with an increasing number of uses and washes.  

The reuse protocol drafted by the WHO-UNAIDS consultation requires disinfection before each wash. Preliminary findings from a WHO-funded study to test the structural integrity of condoms repeatedly disinfected in bleach and washed indicate that the female condom can be used up to seven times and remain structurally sound. Study results are expected to be published in 2001.

Safety and re-infection

Preliminary findings from another FHI study indicate that multiple disinfection and washings of the female condom do not harm the vaginal wall, cervix or penis. The study is comparing the experience of 40 couples who use five devices one time each with 40 couples who use one device five times, with at least a 12-hour wait between uses. The study is using colposcopy to examine the vaginal wall and cervix at baseline and after the last use, to see if washing, disinfection and re-lubrication make a woman more susceptible to infection by causing lesions or other changes. With nearly half of the couples having completed the protocol, only one vaginal reaction has occurred, and that was with a single-use couple.

Before reuse can be recommended, research needs to demonstrate that sexually transmitted pathogens including HIV can be removed effectively from the device after use by a simple disinfection and washing procedure. WHO is funding such a laboratory study, which will explore the minimum bleach soak necessary to ensure safety. The study is expected to be completed in 2001.

The RHRU study involving up to seven uses also tested the device for microbial retention. This research looked at two pathogens, *Neisseria gonorrhoeae* and *Gardnerella vaginalis*, and concluded they can be effectively removed by washing in soap and water alone.  

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