

FREQUENTLY ASKED QUESTIONS ABOUT MICROBICIDES

What is a microbicide?

A *microbicide* is a substance that can substantially reduce transmission of sexually transmitted diseases (STDs) when applied either in the vagina or rectum. A microbicide could be produced in many forms, including gels, creams, suppositories, films, lubricants, or in the form of a sponge or a vaginal ring that slowly releases the active ingredient. The word “microbicides” refers to a range of different products that share one common characteristic: the ability to prevent the sexual transmission of HIV and other STD pathogens when applied topically.

Are microbicides currently available?

No. Scientists are currently testing many substances to see whether they help protect against HIV and/or other STDs, but no safe and effective microbicide is currently available to the public. However, scientists are seriously pursuing over 60 product leads, including at least 12 that have proven safe and effective in animals and are now being tested in people. If one of these leads proves successful and investment is sufficient, ***a microbicide could be publicly available by 2007.***

How would a microbicide work?

A microbicide could prevent HIV and STDs by:

- 1) killing or otherwise immobilizing pathogens
- 2) blocking infection by creating a barrier between the pathogen and the cells of the vagina or rectum; or
- 3) preventing the infection from taking hold after it has entered the body.

Ideally, a microbicide would combine these mechanisms for extra effectiveness.

Would a microbicide eliminate the need for condoms?

No. When used consistently and correctly, male or female condoms are likely to provide better protection against HIV and STDs than microbicides, so they will still be the preferred option. But for people who cannot or will not use condoms, and particularly for women whose partners refuse condoms, using microbicides can save lives and have a substantial impact on the HIV epidemic. In fact, researchers developed a mathematical model that shows that if even a small proportion of women in lower income countries used a 60% efficacious microbicide in half the sexual encounters where condoms are not used, ***2.5 million HIV infections could be averted over 3 years.***

Would a microbicide protect against all sexually transmitted infections?

Since STDs are caused by different pathogens (some viral, some bacterial), a microbicide that works against one STD pathogen would not necessarily protect against another. Many of the microbicides currently being tested work against HIV and at least one other STD. Eventually, a product that combines different microbicides and mechanisms of action could offer a protection from a wide range of sexually transmitted infections, including HIV.

What if a woman wants to get pregnant?

Some of the microbicides being investigated prevent pregnancy and some do not. It is important to have both non-contraceptive microbicides as well as “dual-action” microbicides that prevent pregnancy, so that women and couples can protect their health and still have children. This is not possible with condoms.

Would microbicides be safe?

Any new product must go through rigorous safety testing before becoming available to consumers. Women’s health activists and researchers are working closely together to ensure that the clinical testing of microbicides is thorough and ethical. Fortunately, many of the substances and mechanisms of action under investigation are already commonly used in over the counter products.

Would men benefit from microbicides as well?

There is every reason to believe that a woman’s male partner would also be protected from infection if she used a vaginal microbicide. Microbicides may work for rectal use, but the safety and effectiveness of microbicides for rectal use must be established separately. Rectal safety studies of some potential microbicides are beginning.

Who is working on microbicide research and development?

Almost all microbicide research is conducted by non-profit and academic institutions or small biotech companies, funded by federal research grants through the National Institutes of Health, US Agency for International Development, and the Center for Disease Control and Prevention. Federal funds also support basic science, social and behavioral research, and clinical trial infrastructure that contribute to microbicide research and development. Large pharmaceutical companies have not taken an interest in this field, primarily because microbicides are a classic “public health good” which would yield tremendous benefits to society but for which the profit incentive to private investment is low.

Why do we need microbicides if we will eventually have an HIV-vaccine?

No one strategy or technology will “solve” the AIDS pandemic. We must employ all existing prevention strategies-- such as behavior change, voluntary counseling and testing, STD diagnosis and treatment, broad access to male and female condoms, and anti-retroviral interventions—as well as expand our repertoire of tools and technologies. Microbicides will likely be available and accessible sooner than an HIV-vaccine. Even after a safe and effective vaccine is discovered, vaccines and microbicides will have different, complementary roles to play in an integrated, multi-faceted global HIV prevention strategy.

How much will microbicides cost, and will people be able to afford them?

It is essential that microbicides get into the hands of women and men who need it at a price they can afford. In the past, new health technologies have rarely become widely available in developing countries until more than a decade after their approval in the US and Europe, an

unacceptable delay for this life-saving technology developed primarily with public funds. Advocates are working with researchers and policy makers to emphasize the need to address issues of access and affordability up front, in order to be prepared to rapidly deliver a microbicide as soon as one is proven safe and effective.