



Frequently Asked Questions About Microbicides

What is a microbicide?

A *microbicide* (mī-KRO'-bī-sīd) is a substance that can substantially reduce transmission of sexually transmitted infections (STIs) 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 STI 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 STIs, but no safe and effective microbicide is currently available to the public. However, scientists are seriously perusing over 50 product leads, including 11 that have proven safe and effective in animals and are now being tested in people. Results from the trials now furthest along could become available in 2009, but it will take additional time for the products to be reviewed and approved for licensure – at least 1-2 years. Thus, a microbicide could be ready for introduction in the next five years, but that would only happen in a few countries, and most likely through smaller scale introductory programmes.

If the current set of products in effectiveness trials does *not* prove effective, the time horizon will be longer. There are several second-generation leads already in human testing, so we need to ensure that the entire pipeline continues to advance.

How would a microbicide work?

Most microbicides under development act through several possible mechanisms. Some are specific to HIV, others are not.

- Non-specific:
 - Blocking entry of the virus
 - Killing or inactivating the virus
 - Boosting the vagina’s natural defenses
- Specific to HIV:
 - Inhibiting entry/fusion or replication

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 STIs 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 spread of HIV. 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.**

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 and “dual-action” microbicides that prevent pregnancy and infection, so that women and couples can protect their health and still have children. This is not possible with condoms.



Would a microbicide protect against all sexually transmitted infections?

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

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 microbicides that is bi-directional (one that disables HIV in vaginal secretions as well as semen). It may also be possible to develop microbicides that can be use rectally, but the safety and effectiveness of microbicides for rectal use must be established separately. Rectal safety studies of some potential microbicides have started.

Who is working on microbicide research and development?

Virtually all microbicide research to date has been conducted by non-profit and academic institutions or small biotech companies. Studies are funded by charitable foundations and government grants. These public funds also support basic science, social and behavioural research, and clinical trial infrastructure that contribute to microbicide research and development. Large pharmaceutical companies have not invested significantly 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 behaviour change, voluntary counselling and testing, STI diagnosis and treatment, broad access to male and female condoms, access to sterile syringes, 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 North, an unacceptable delay for this life-saving technology developed primarily with public funds. Advocates are working with researchers and policy makers now to emphasise the need to address issues of access and affordability up front, in order to be prepared to deliver a microbicide rapidly as soon as one is proven safe and effective.

How can you get involved?

Visit the Global Campaign for Microbicides website: www.global-campaign.org to sign a petition, sign up for our electronic newsletter, write to your parliamentarian, meet up with local advocacy groups in your region, and learn more about microbicides. We need your help to make a safe and effective microbicide available as soon as possible.

The Global Campaign for Microbicides is a broad based, international coalition of organisations working to accelerate access to new HIV prevention options. Visit our website: www.global-campaign.org or email: info@global-campaign.org to get in touch with one of our regional offices:

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