



## QUESTIONS & ANSWERS ABOUT NONONXYNOL-9

### **What is Nonoxynol-9 (“N-9”)?**

- N-9 is a chemical in a category of compounds called “surfactants”. Surfactants work by disturbing the cell membrane.
- N-9 kills sperm and is the active ingredient in most over-the-counter (“otc”) *spermicidal* products available in the United States and many other countries.
- Initially it was thought that N-9 was also an effective microbicide against Sexually Transmitted Infections (STIs) and HIV (AIDS). *In vitro* (laboratory) studies show that N-9 produces bacteriacidal and virucidal effects by disrupting the cell membrane and the viral envelope. But recent *in vivo* (in people) studies are changing the way people think.

### **What Products Contain Nonoxynol-9?**

N-9 is found in three categories of products:

- **Condoms** - Some condoms contain N-9. All spermicidally lubricated condoms use N-9. N-9 is indicated on the front of the condom box as: “spermicidally lubricated” or “with spermicide lubrication”. Additionally, the active spermicide ingredient nonoxyonol-9 will be indicated on the back of the box.
- **Personal Lubricants** - Nonoxynol-9 is also found in some personal (sexual) lubricants and will be included in the list of ingredients. Many brands use the word “Plus” to indicate they contain N-9.
- **Vaginal Contraceptives** - N-9, as a spermicide, has been the active ingredient for vaginal contraceptives since the 1930s. These spermicidal products have been on the market for decades. (eg, Conceptrol®, Delfen®, Ortho-Gynol, Encare®, VCF®, Semicid®, Advanatage®, KY® Plus, and Koromex®).

The practice of adding N-9 to personal lubricants and condoms accelerated in the late 1980's and early 1990's when it was widely believed, based on *in vitro* (laboratory) testing, that Nonoxynol-9 provided some protection, as a microbicide, against bacterial STIs and HIV, in addition to its original spermicidal role. Therefore it became a popular additive to lubricants and condoms, and it was widely recommended by public health officials.

### **What are the problems with Nonoxynol-9?**

Most people do not have problems or increased risks when they use products which contain N-9. However, we are now learning more from *in vivo* (in people) studies about N-9 than from earlier *In vitro* (laboratory) studies. We are learning :

- that products containing small amounts of N-9, when used rectally, can cause massive short-term disruption and shedding of epithelium cells lining the rectum. This creates an environment which may increase an individual's risk of contracting HIV or other STIs.
- that N-9 does not provide protection against STIs or HIV and may actually increase the risk of contracting HIV under certain circumstances.

Some of the problems and increased risks associated with N-9 products are:

1. Men and women who have rectal sex and put N-9 products into the rectum have an increased risk of HIV and Sexually Transmitted Infection ("STI").
2. Women who use N-9 vaginal contraceptives during multiple acts of intercourse daily AND who are at high risk for HIV infection will be at increased risk of HIV infection.
3. Some women who use N-9 products have increased risk of bladder infections.
4. Some men and women who use N-9 products may experience:
  - burning/irritation at the opening of the urethra (where urine comes out),
  - rashes or allergic reactions, or
  - a bitter taste and numb tongue when N-9 products are put in the mouth

### **How large is the N-9 Condom Market:**

Condoms with N-9 are generally known as "spermicidally lubricated" condoms and they continue to be a substantial part of the condom market. The total retail condom market is approximately \$ 230 million, of that \$ 81 million is still spermicidally lubricated condoms (IRI November 30,2003).

### **Are condoms effective without N-9?**

Condoms are a very effective form of contraception. If used properly and consistently, condoms, as a barrier, will help reduce the risk of transmission of HIV and many STIs.

While it has been widely believed that spermicidal lubrication on condoms provides a "back-up", reducing the number of active sperm should the condom slip off or break before withdrawal, there is no research that proves spermicidally lubricated condoms are more effective at either contraception or STI protection than condoms with silicone oil lubricant or water-based lubricants.

### **Is there an alternative to N-9?**

N-9 continues to be an effective and recommended contraceptive. At this time there is not an alternate FDA approved vaginal or rectal microbicide. It is vitally

important for on-going research to develop vaginal and rectal microbicides that are both safe and effective as soon as possible.

### **What are current Public Health recommendations regarding use of N-9 products?**

The CDC 2002 STD Treatment Guidelines (May 3, 2002): "...N-9 can damage the cells lining the rectum, thus providing a portal of entry for HIV and other sexually transmissible agents. Therefore, N-9 should not be used as a microbicide or lubricant during anal sex."

The CDC (May 10, 2002): "In the future, purchase of condoms lubricated with N-9 is not recommended because of their increased cost, shorter shelf life, association with urinary tract infections in young women, and lack of apparent benefit compared with other lubricated condoms.

Recent WHO (World Health Organization) consensus statement on Nonoxynol-9 (June, 2002): "There is no evidence that N-9-lubricated condoms provide any additional protection against pregnancy or STIs compared with condoms lubricated with other products. Since adverse effects due to the addition of N-9 to condoms cannot be excluded, such condoms should no longer be promoted."

### **What are the arguments against discontinuing Nonoxynol-9?**

Several manufacturers have said that they will continue to sell products containing N-9 because their customers, many of whom do not experience problems or increased risks with N-9, want those products. Whether it is real or perceived, consumers value the "back-up" role of spermicidal lubrication on condoms.

There is also a concern that any negative publicity about condoms might discourage consumers from using condoms all together.

### **Where can I go to get more information on N-9?**

[www.conrad.org](http://www.conrad.org)  
[www.who.int/reproductive-health/rtis/index.htm](http://www.who.int/reproductive-health/rtis/index.htm)  
[www.MayerLabs.com](http://www.MayerLabs.com)  
[www.global-campaign.org](http://www.global-campaign.org)  
[www.cdc.gov/std/treatment/default.htm](http://www.cdc.gov/std/treatment/default.htm)

Questions? Call 1-800-426-6366