

## Diaphragm and sponge protect against STDs

The use of a diaphragm or contraceptive sponge provides some women with better protection against certain sexually transmitted diseases than does relying on their partner's use of a condom. This new finding may add to the contraceptive options considered by many women, especially those at risk of sexually transmitted diseases (STDs).

"Women have to understand that there are methods they can use independent of their partners that can protect against STDs," says principal investigator Michael J. Rosenberg of the University of North Carolina's School of Public Health in Chapel Hill.

Laboratory studies have shown that an intact condom provides an impermeable barrier to most disease-causing organisms. But despite the condom's prowess in an ideal setting, the device often falls short in the real world.

To find out how the condom stacks up against the diaphragm and the sponge, Rosenberg and his colleagues designed a cross-sectional study of 4,162 women who visited a Denver STD clinic between Jan. 1, 1987, and Dec. 31, 1988. The researchers asked the women about the contraceptive device they used most frequently during the month prior to their visit. In addition, laboratory tests identified infections caused by a variety of disease-causing microbes, including *Neisseria gonorrhoeae*, *Trichomonas vaginalis* and *Chlamydia trachomatis*.

These three organisms cause about three-quarters of all cases of STD in the United States, the researchers note. If left untreated, both gonorrhea and chlamydia can cause infertility. Trichomoniasis is a less serious infection that can cause vaginal itching and discharge.

The researchers discovered that women using the contraceptive sponge or the diaphragm had significantly lower rates of gonorrhea and trichomoniasis than did women who relied on their partner's use of a condom. Women using the diaphragm or sponge were also less likely to suffer from chlamydia, although the difference was not statistically significant, the team reports in the May AMERICAN JOURNAL OF PUBLIC HEALTH.

The researchers wanted to get an idea of how people actually use birth control in the real world; however, they admit that they collected very little information on how often women and their partners used contraceptives or whether they used them properly every time.

Rosenberg suspects that women using the diaphragm or the sponge received greater disease protection simply because they used these barrier methods routinely. The spermicide contained in the sponge and applied to the diaphragm before insertion is known to kill disease-

causing microbes, he adds.

By contrast, women relying on their partner's use of a condom face a greater risk of disease transmission because the partner may fail to use the device properly or during every act of intercourse, Rosenberg says.

"It is possible that because women are the ones who suffer the most severe consequences from contraceptive failure, they are more likely than men to use their method correctly," he adds.

Noting that STDs spread more easily from men to women than from women to

men, Rosenberg recommends that efforts to curb the transmission of these diseases focus on female-controlled contraceptives such as the diaphragm or the sponge. Many women, especially those in high-risk groups, find it difficult to negotiate condom use with their partners, he adds.

The study did not address the question of whether female-controlled methods shield against the virus that causes AIDS, comments Willard Cates Jr. of the Centers for Disease Control in Atlanta. He says the condom, if used properly, still provides the greatest protection against sexually transmitted diseases, including AIDS.

— K.A. Fackelmann

## Prozac's effects on pregnancy and diabetes

Women who become pregnant while taking the antidepressant drug fluoxetine, better known under the trade name Prozac, run no greater risk of having a baby with birth defects than women among the general population, a new study of the drug suggests. A second study indicates that fluoxetine can aid weight loss and improve diabetes symptoms among obese, Type II diabetics.

Roughly 5.5 million patients worldwide have taken fluoxetine since the FDA approved it in 1987, according to manufacturer Eli Lilly and Co. in Indianapolis. Many are women of childbearing age.

To determine whether fluoxetine taken by an expectant mother can damage her fetus, researchers led by physician David J. Goldstein of Eli Lilly followed the outcome of 271 fluoxetine-exposed pregnancies. Fifty-two of the women became pregnant during a clinical trial of the drug, despite their use of birth control. The other 219 women joined a study on fetal fluoxetine exposure after becoming pregnant while taking the drug once it was on the market. Many of the women in both groups took fluoxetine throughout the first two months of pregnancy; a few continued to take the drug for the entire nine months.

Roughly one-fifth of the 271 women elected to have abortions, the researchers report. Of those who decided to continue their pregnancies, about 17 percent miscarried — a miscarriage rate comparable to that of the general population, Goldstein says. Only seven women had babies with birth defects, such as a twisted gut, an enlarged mouth or fluid-filled scrotum. This 4 percent rate of birth defects is also comparable to that among the general population, Goldstein asserts. He and his colleagues presented their data in Baltimore last week at a joint meeting of the Association of American Physicians, the American Society for Clinical Investigation and the American Federation for Clinical Research.

"Overall, the data . . . do not indicate that there's a significant difference from

the general population risk" for miscarriage or birth defects among women who take fluoxetine during early pregnancy, Goldstein says. "But the precaution would be to avoid pregnancy if at all possible while you're being treated [with the drug]," until further studies confirm the finding, he cautions.

Lewis B. Holmes, a geneticist who studies birth defects at Massachusetts General Hospital in Boston, says the study is "nice to have" because no one had previously examined the effects of fetal exposure to fluoxetine. However, he says the study group is not large enough to rule out a pattern of rare birth defects. "Right now," says Holmes, "we're telling patients that there's no circumstantial evidence that there's a cause for concern [if they took fluoxetine during pregnancy] but that it hasn't been the subject of a systematic study." He adds that "there's no convincing evidence" that antidepressant drugs other than lithium cause birth defects in humans.

In another study reported at the meeting, Goldstein and a second group of Eli Lilly scientists examined fluoxetine's benefits in treating obese men and women with Type II (non-insulin-dependent) diabetes. All 278 volunteers followed a diet for diabetics; half received daily doses of fluoxetine, while the other half received placebo pills. After three months, the fluoxetine group had lost three times as much weight as the placebo patients. The fluoxetine group also had a blood sugar reduction nearly three times greater than that seen in the placebo patients.

"There seem to be beneficial effects [of fluoxetine] in patients with Type II diabetes," Goldstein concludes. George A. Bray, who studies diabetes and obesity at Louisiana State University in Baton Rouge, concurs. "The drug is really treating the obesity, not the diabetes," says Bray. "But if you treat the obesity in Type II diabetics, you are doing the most important thing you can do to correct their diabetes." — C. Ezzell