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A Vital Discussion, Clouded
By DENISE GRADY

When a disease is described as sexually transmitted, it's tempting to assume that the people who catch it must be promiscuous. Just what that means is a matter of opinion, but it's a label that most parents would be pained to hear applied to their daughters.

Worries about promiscuity have clouded the discussion about the cervical cancer vaccine that was approved last year for girls and young women, and that some states want to require for schoolgirls. Cervical cancer is caused by a sexually transmitted virus, and the message from some quarters is that a decent young woman shouldn't need this vaccine.

For example, Focus on the Family, a Christian advocacy group in Colorado Springs, says that instead, a woman should simply avoid the virus by not having sex before marriage. Even some who think that abstinence is unrealistic still imagine that this kind of disease does not happen to a girl who's had only a boyfriend or two.

It's a misconception that can cost a young woman her health, her fertility and maybe even her life.

People don't have to be promiscuous to contract the cervical cancer virus, a type of human papillomavirus, or HPV. These viruses, the most common sexually transmitted infection in the United States, are practically ubiquitous. They're ancient, they've found a cozy ecological niche on the human body, and they're here to stay. Millions of people carry them and share them with millions of sex partners every year. Intercourse seems to be the best way to transmit them, but any type of genital contact increases the risk, and condoms offer only partial protection because skin beyond the condom may be teeming with the virus. Much of the time, the viruses cause no problems, and people don't even know they're infected.

"It's really pretty impossible to avoid acquiring one or more genital HPV infections if you decide you're going to be sexually active in your life," said Dr. Laura Koutsky, a professor of epidemiology and an HPV expert at the University of Washington in Seattle. Some of her research has been paid for by Merck, the maker of the vaccine.

HPV is so widespread that Dr. Koutsky compared it to the viruses that cause the common cold.

"If we lock ourselves up in the house and don't associate with people, we won't get colds," Dr. Koutsky said. "If you never have sex, you won't get HPV. It's not clear we want to live that way."

Promiscuity certainly increases the risk. But Dr. Koutsky said: "Young women in their 20s who have just a single partner have high rates of infection. It just takes one partner."

A person can catch any sexually transmitted infection from just one partner, but the odds of encountering HPV are especially high because so many people are infected.

"It's not about promiscuity," said Dr. Anna R. Giuliano, a professor of medicine and epidemiology at the H. Lee Moffitt Cancer Center and

Research Institute in Tampa. “The more we can get that out of people’s minds, the faster we’ll be able to get prevention efforts out there. I worry that people will say, ‘Oh that’s not me, it’s not something I have to worry about.’ ”

Dr. Giuliano has conducted vaccine research for Merck and given lectures paid for by the company.

Abstinence until marriage can prevent HPV infection, but is sure to work only if both spouses are virgins and remain monogamous forever.

“You’d also have to guarantee — I hate to say it — that you’re not going to be raped,” Dr. Koutsky said. “If you’re convinced you can guarantee for your daughter that all those activities will or will not happen, then chances are good there will not be HPV transmission.”

A study from the Centers for Disease Control and Prevention, published last week in *The Journal of the American Medical Association*, found that the virus was even more common in the United States than researchers had thought. In girls and women 14 to 59, the overall infection rate was 26.8 percent, which translates to 24.9 million infected women. The highest rate was among those 20 to 24 — 44 percent. Previously, the disease centers had estimated a total of 20 million infected people, both male and female.

“The key prevention message is that women should have routine screening with Pap tests, and certain women are eligible for vaccination,” said Dr. Eileen Dunne, the first author of the study and a medical epidemiologist at the disease centers.

Researchers estimate that more than six million new HPV infections occur each year, that at least half of all sexually active adults have been infected at some point in their lives, and that by age 50 at least 80 percent of women have been infected.

About 40 types of human papillomavirus thrive in the genital region. Some types can cause genital warts and some can cause cervical cancer, but many people have no symptoms at all and may not realize they’re infected. The virus types that can cause cervical cancer in women generally produce no problems in men, though they can lead to cancers of the penis or anus. But those cancers are far less common than cervical cancer. Men may have no idea that they carry high-risk viruses that pose a threat to their partners.

The vast majority of people infected with these viruses suffer no ill effects. In most healthy people, the immune system fights off the virus. Only a small percentage of women who contract the types of virus that can cause cervical cancer actually develop the disease. Regular Pap tests can usually detect the cancer early enough to cure it, but some women do not get tested, and in the United States, about 4,000 women a year die from cervical cancer. Hundreds of thousands need painful, nerve-racking medical procedures to remove abnormal cervical growths — precancers and early cancers — caused by HPV.

Worldwide, 240,000 women a year die from cervical cancer, and researchers say that plenty of women with no partners outside marriage are infected by their own husbands.

Because the virus is so common and because it’s impossible to predict

which women will get cancer, the Food and Drug Administration and medical groups have recommended Merck's vaccine, Gardasil, for nearly all girls and women from ages 11 to 26, before they become sexually active. The vaccine protects against two HPV types that cause 70 percent of all cervical cancers, and two other types that cause 90 percent of genital warts.

Another new study, directed by Dr. Giuliano in the United States, Mexico and Brazil, found that heterosexual men 18 to 40 had an even higher overall infection rate than did women the same age — about 50 percent. No one knows why men seem more likely than women to be infected, and it is not clear how long the infection lasts, Dr. Giuliano said. A report on the work is to be published in the next few months in the journal *Cancer Epidemiology Biomarkers and Prevention*. The study is being financed by the National Cancer Institute.

In future studies, Dr. Giuliano said, she hopes to find out how the various types of virus are passed between sexual partners.

But one thing is already clear, she said: "Having sex once or having only one partner doesn't mean you're not at risk."

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