



New Study: Sun Exposure Increases Risk of Virus

Sunlight Might Suppress Defense to Papilloma Virus

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ORLANDO, Fla. -- A new study released Tuesday in Orlando says exposure to the sun may increase women's risk of catching a common sexually transmitted infection.

Researchers using data from Holland found that detection of papilloma virus infection during routine cancer screening peaks during August. They believe that sunlight suppresses women's immune system defenses.

Scientists say the sun can dampen the body's production of antibodies and the activation of protective T cells, the main branches of the natural defenses against infection. **Other research has suggested a connection between sunlight and susceptibility to herpes and adenovirus¹, among other things.**

Viruses like papilloma are spread through sexual contact, and they are the **most common cause of cervical cancer, a disease that kills about 10,000 U.S. women annually.**

¹ *adenovirus* : Infection with one of a group of viruses responsible for a spectrum of respiratory disease as well as infection of the stomach and intestine (gastroenteritis), eyes (conjunctivitis).

Although the virus can cause genital warts, most infected people have no

outward symptoms.



Summer sun may increase women's chance of papilloma virus infection

DANIEL Q. HANEY

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ORLANDO, Fla. (AP) - The long sunny days of summer may increase the risk of catching a common sexually transmitted infection. And it's not just because people have more sex when the weather is nice.

Researchers using data from Holland found that detection of papilloma virus infection during routine cancer screening peaks during August. Their theory: sunlight suppresses women's immune system defenses.

Experts have long suspected that sunlight has powerful - and perhaps conflicting - effects on the body's tendency to develop a variety of diseases, including cancer. The best example is the risk of too much sun triggering skin cancer.

However, many suspect sunshine can have less obvious influences, and can even affect susceptibility to a variety of everyday viruses like papilloma. These viruses are spread through sexual contact, and they are the most common cause of cervical cancer, a disease that kills about 4,000 U.S. women annually. Although the virus can cause genital warts, most infected people have no outward symptoms.

"The sun is a kind of drug, a drug that influences whether a papilloma infection takes hold or not," said Dr. William Hrushesky, an authority on how disease patterns fluctuate over time.

Hrushesky, who is based at the WJB Dorn Veterans Administration Medical Center in Columbia, S.C., presented his findings Tuesday at a meeting in Orlando of the American Association for Cancer Research.

He looked at the results of more than 900,000 Pap tests done in southern Holland between 1983 and 1998. The test does not detect papilloma virus directly. But it reveals abnormal cells that are typically caused by the infection.

Hrushesky found that the sunnier the year and the sunnier the month, the higher the rate of human papilloma virus.

August is consistently the sunniest month in southern Holland, and the screening tests picked up twice as much evidence of papilloma virus infection then as in the winter. The virus fell off sharply in September.

The reason for the August spike? "Sexual intercourse did not appear to explain most of the variance," he said.

No one can say exactly when people are having the most sex, but one strong hint is when the most babies are conceived. Records show that conception is most likely to occur in Holland in March, although there is only about a 10 per cent variation over the year.

Instead, Hrushesky theorizes that even though women are exposed to papilloma at roughly the same level year round, the extra sunlight weakens their defenses against it in the summer.

He noted that sun can dampen the body's production of antibodies and the activation of protective T cells, the main branches of the natural defenses

against infection. **Other research has suggested a connection between sunlight and susceptibility to herpes and adenovirus, among other things.**

Dr. Bruce Armstrong of the University of Sydney in Australia said the impact can occur far from the patches of skin where sunlight hits, and an effect on infection of the cervix seems plausible.

"The relationship between sunlight and cancer is complex," he said.

Many studies have noted a link between cancer incidence and how far north people live. In general, these reports show that several kinds of cancer, including colon, prostate and breast, are less frequent in southern areas, suggesting that sunlight may protect against them.

Armstrong's own study, also presented Tuesday, found that the more sunlight people receive, the less likely they are to get non-Hodgkin's lymphoma. He looked at 1,398 people and found that those who got the most sun had a one-third lower risk than those who got the least.