

# Human Papillomavirus vaccine, cervical cancer prevention

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Human papillomavirus (HPV) and the new vaccine have been in the news and in advertisements for several months. There have been many newspaper articles appearing with information and recommendations. The Wisconsin State Legislature is debating the issue of adding this immunization to the list of mandatory vaccinations for school attendance. The American Academy of Pediatrics is recommending that all 11 and 12 year olds have a health maintenance visit. What is the big fuss all about?

This is a vaccine to prevent cancer. That is big. Bigger yet, it is a wake-up call for adolescents, parents and healthcare providers. The discussion about this vaccine is an opportunity for parents and their children to use the healthcare system and information systems to learn more about health and safety issues affecting the lives of preteens and teens.



This article will provide information regarding human papillomavirus, the HPV vaccine and the reasons parents might consider this vaccine as an important intervention to help maintain the health of their daughters.

Human papillomavirus is the most common sexually transmitted virus in the United States. There are over 100 recognized subtypes of HPV. This virus is found only in humans. The subtypes six and 11 are the cause of warts on the genitalia, called venereal warts. The subtypes 16 and 18 are associated with most abnormal Pap smears. When persistent and un-

treated these infections can result in cervical cancer.

Most of the time, HPV infections are cleared through natural shedding of the top layer of cells of the cervix or by the development of immune proteins called antibodies. Seventy to 90 percent of virus exposures and infections are cleared before any abnormality is identified. It is estimated that there are 4.6 million new HPV infections among persons in the 15 to 24-year-old age group each year. Those infections that are persistent cause abnormal Pap smears and venereal warts requiring treatment. The cost of treatment in the United States is more than two billion dollars annually.

Pap smears have resulted in early detection and treatment and therefore a notable decrease of the number of deaths from cervical cancers over the last 25 years. However, there continues to be approximately 3,700 deaths from cervical cancer in this country each year.

A vaccine directed against the four subtypes of human papillomavirus that cause venereal warts, abnormal Pap smears and cervical cancer is now available. This HPV vaccine is most effective when given prior to becoming sexually active. Full immunization occurs with three doses of the vaccine. Right now the Center for Disease Control (CDC) recommends the vaccine for females age nine to 26. In the future it may also be recommended for males.

The vaccine is highly effective. Studies have been done using large numbers of women volunteers between the ages of 15 and 24 years who were given either the vaccine or placebo injection. The vaccine established immune protein protection (antibodies) against the HPV viruses. The vaccine was found to be over 94 percent protective against the development of abnormal Pap smears and cervical cancer, and over 95 percent protective against the development of venereal warts.

The vaccine also appears to be safe. The primary side effects were those of soreness at the injection site, which was reported to occur in nearly 84 percent of subjects who received the vaccine. This compares to about 75 percent of subjects having discom-

fort at the injection site who received placebo. Fever was also relatively common, occurring in roughly 10 percent of subjects who received the vaccine as compared to eight percent in placebo. There were no other apparent serious ill effects from the vaccine administration.



The physician, nurse practitioners and physician assistants who see children and young women at the Mile Bluff Medical Center and its associated community clinics are enthusiastic about the use of a vaccine for cervical cancer prevention. They also would like to share with parents, resources that assist them in speaking with their children about limiting risk and promoting a healthy lifestyle. Discussing these issues - particularly issues of sexuality and healthy behavior - can be quite challenging. Fortunately there is information available to help us.

It is helpful for parents to have the facts. The CDC has done a great deal of research on health and risk behaviors of adolescents between the ages of 14 and 18. The CDC publishes these studies in the Youth Risk Behavior Survey yearly. It can be found on the website: [cdc.gov](http://cdc.gov). Several of the statistics help us in determining when and what to say to children when talking about lifestyle issues.

The CDC surveys suggest that 30 percent of young women have initiated sexual activity by the time they are freshmen in high school. The percentage increases to roughly two-thirds of young women by the time they are seniors in high school. It is concerning that as many as 20 percent of these young women report their first sexual encounters to be

forced. These surveys also show alcohol and other drug use to be prevalent about the time of these early and unanticipated sexual encounters.

Developmentally appropriate discussion of these issues with children and adolescents is never easy, but very necessary. We have an opportunity to open a dialogue with our children that will guide them through this eventful period of adolescence. We can certainly advise teens about what is safe and healthful in the choices they make. We now also have an opportunity to influence the risk of cervical cancer during the lifetimes of our daughters.

Please feel free to seek the assistance of your health care provider in making this decision. Call your clinic to make an appointment for a health maintenance visit for your preteen and teen.

We are developing a web site to link families with more information on this topic. Look for it in September at [www.milebluff.com](http://www.milebluff.com).

## Managing diabetes

Do you have diabetes?

Are you looking for help in managing your diabetes and don't know where to turn?

Mile Bluff Medical Center offers free diabetes presentations monthly, alternating between the Mauston and Lake Delton locations. The next meeting is entitled, "Be the CEO of your diabetes," and will be held at Hess Memorial Hospital Monday, May 21 at 6:30 p.m.

This program is designed to be informational and educational and is open to anyone who wants to learn more about living well with diabetes.

Future meeting topics include: Make diabetes complications less complicated, To carb or not to carb, Diabetes foot care... and more! The group will even get the chance to tour the supermarket with dietitians in July.

Call 847-6161 x786 for information or to request that a schedule of the 2007 presentations be mailed to your home.