

## **THE HPV (HUMAN PAPILOMA VIRUS) VACCINE, SHOULD YOU GET IT? SHOULD YOU ALLOW YOUR DAUGHTER TO GET IT?**

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The medical world was very excited and happy when in June 2006 the Federal Food and Drug Administration (FDA) approved the HPV vaccine. This is a vaccine that has shown efficacy in preventing infection with the Human Papilloma Virus (HPV), which is the cause of most cancers of the cervix in women (and also the cause of cancer of the penis in men).

### **FACTS ABOUT HPV AND CANCER CERVIX**

- 11070 new cases of cancer cervix will be diagnosed in 2008 in the USA
- approximately 4000 women die of cervical cancer each year in the USA
- There has been a 74% drop in cancer cervix from 1955 to 2002, after introduction and widespread utilization of the 'Pap' smear test in the USA (in the 1940s)
- Cancer cervix deaths are decreasing by approximately 4% per year with continued Papanicolaou screening (the 'Pap' test) in the USA
- **70% (7 in 10) cancers of the cervix are caused by HPV**
- **1 in 2 (50%) of cancers of the cervix are caused by HPV types 16 and/or 18**
- **HPV is transmitted from individual to individual by sexual contact (it is a sexually transmitted disease)**
- **lifetime risk of getting infection for any individual is 80% (8 in 10)**
- **The highest incidence and prevalence of HPV is between ages 15 and 25**
- **Most individuals who get the infection by sex will clear the infection (get rid of it) by their body's own immune system within 2 years**
- **Only some individuals will be unable to clear the virus and in them the virus will persist**
- **Only 1 in 10 to 1 in 30 HPV infections is associated with the development of precancer changes or an 'abnormal' Pap test (these are individuals in whom the virus persists)**
- **Persistent infection with HPV is the single most important factor in development of cancer cervix (when the body's immune system is unable to get rid of the HPV)**
- **Cancer cervix is almost unknown to occur in individuals who have never had sexual contact of any kind**
- **Cancer cervix is almost unknown in individuals who have had sex only with one partner in their whole life, and that partner has never had sex with anyone else in his/her whole life**
- **A new weapon in the battle against cancer cervix is the new vaccine against HPV**

### **FACTS ABOUT THE HPV VACCINE**

- The vaccine gives immunity against **ONLY FOUR TYPES** of HPV 6,11,16,18
- The vaccine is best given **BEFORE** an adolescent becomes exposed to the virus by having sexual contact i.e. it is best given between 9 to 11 years of age
- **Women up to age 26 years can take the vaccine**
- The vaccine **will not** treat/cure genital warts or precancer changes in the cervix
- The vaccine is not yet recommended for boys/men
- The vaccine **will not** protect against other sexually transmitted diseases such as Gonorrhea, Chlamydia, Syphilis, HIV, Hepatitis C, Hepatitis B and others
- Even if a young girl has taken the vaccine (all three doses), then she must get 'Pap' tests regularly when she becomes sexually active (because the vaccine does not

- protect against all HPV types, only against 4 types (6,11,16,18)**
- **It is unknown if the protection will last beyond five years (we do not have enough information yet) but protection for ~5 years is almost 100%**

## **SHOULD YOUR DAUGHTER GET THE VACCINE? SHOULD YOU GET THE VACCINE YOURSELF?**

If you consider carefully all the facts as noted above about the vaccine and about cancer cervix, then it is quite clear that cancer of the cervix is a 100% preventable disease simply by getting regular Pap tests, which will 'catch' the pre-cancer stages of the disease before it becomes cancer and by controlling one's own lifestyle (e.g. condom use always, having sex with only one partner etc). Remember that although condoms will give some protection, it is not 100%.

The HPV vaccine is another wonderful weapon to help an adolescent or a young woman to prevent cervical cancer/warts.

Most parents will agree to get their daughter's vaccinated because it is difficult to control lifestyle factors. Getting the vaccine for your daughter does not mean that you are giving her permission to indulge in sexual intercourse. At the same time make it clear to your daughter that the vaccine will not protect against any other diseases and that she must get regular Pap smear tests when she becomes sexually active. Time will tell whether the vaccine will give protection beyond 5 years. However; if your daughter gets the vaccine between 9 and 11 years, it will protect her in her most vulnerable years, when HPV incidence and prevalence is high.

Again, for yourself; if you are at an age below 26 years, then the same considerations will apply. If your Pap test has been normal throughout your life up to this age, then you would be a candidate for the vaccine. It is quite possible that you already have had the HPV infection and have 'cleared' it by your own immune system, or that the virus is lying 'dormant' in your body and will activate ('wake up' and cause pre-cancer) later in life. You do not need to get tested for HPV before getting the vaccine. If you already have had an abnormal Pap test and have been diagnosed with pre-cancer ('dysplasia') of the cervix, it is not known that you will derive definite benefit from the vaccine, if there is any benefit, it will be less than if your Pap smear was never abnormal. If you have genital warts, the vaccine will not help to clear these warts, you will need appropriate treatment for these conditions.

Remember that the vaccine will not protect you against any other sexually transmitted diseases.

Most important to remember is that you must continue to have regular every year Pap tests even if you have had the vaccine.

The vaccine is not approved for women over age 26 years yet, though studies are ongoing regarding benefit for these women. The vaccine is also not approved yet for boys or for men.

Please do speak with your daughter's pediatrician and with your own gynecologist if you have any further questions.

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