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## HPV Vaccination for Men

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Much of the public has heard of the HPV vaccine and advertisements encouraging women to be vaccinated against HPV. A new study suggests, however, that men should be vaccinated against HPV as well.<sup>1</sup> In 2006, Merck introduced a vaccine against HPV known as Gardasil.<sup>1</sup> The vaccine protects against two strains of HPV, which are known to cause 70% of all cervical cancers and 90% of all cases of genital warts.<sup>2</sup> Because HPV is responsible for 11,000 cases of cervical cancer each year, the CDC recommends that all women ages 11 to 26 be vaccinated.<sup>3</sup> What about men? After all, HPV has been implicated in genital warts, mouth and throat cancers, and rare penile and anal cancers.<sup>4</sup>

Approximately 75% of unvaccinated men and women will get an HPV infection in their life.<sup>2</sup> The vaccine was not originally marketed to men, however, because the health effects caused by the infection were not considered as significant compared to effects in women. Most men will never know that they have been infected with HPV and the few who do will primarily suffer from genital warts. Some men, though, especially those who sleep with other men, experience drastic consequences from the infection. Roughly half of all penile cancers are caused by HPV, and HPV is the primary cause of anal cancers in the U.S.<sup>4</sup> HPV infection also causes cancers of the throat and mouth, both of which have been on the rise especially in young men, presumably because of participation in oral sex.<sup>4</sup> Given these diseases associated with HPV, it would seem reasonable to argue that men should be vaccinated against the infection as well.

Merck, the company which produces the vaccine, has begun to investigate this argument. An ongoing study conducted at the Medical College of Georgia's Gynecological Cancer Center on 5,400 men worldwide aged 16 to 24 who have had few or no sexual partners has so far shown that the vaccine has similar rates of efficacy and side effects in men as it does in women.<sup>5</sup> Gardasil has already been approved for use in men in several countries. Following the release of preliminary results from the study, an advisory panel for the Federal Food and Drug Administration voted in September 2009 to advise that the HPV vaccine be made available to men in the U.S.<sup>6</sup>

Some experts question this advice. The BMJ published an editorial by researchers from the National Institutes of Health in Bethesda, MD, and from the Division of Preventative Medicine at the University of Alabama which questioned the fiscal responsibility of vaccinating men.<sup>6</sup> The vaccine requires three doses and costs 360 USD per person.<sup>2</sup> In light of rising healthcare costs, it is argued that if all women were vaccinated against HPV then the disease could be eradicated in men as well, since men would have no opportunity to encounter the

infection. This argument fails to include the risks and spread of infection amongst homosexual men. Vaccinating women would lead to some herd immunity, meaning homosexual men may have a lower risk of being infected if women were vaccinated. The decrease in risk, however, would not be comparable to the decrease in risk observed in the heterosexual population. This disparity is particularly important, as homosexual men are at the highest risk for anal cancers.<sup>4</sup> This analysis is also based on high rates of uptake of the vaccine in women. Only 18% of females aged 13 to 17 had received all three doses of the vaccine in 2008.<sup>6</sup> The researchers note that if this number does not increase, then vaccination of men could be a very beneficial addition to herd immunity.

Vaccination of men and women would be equally in line with our current approach to sexual health— that is to hold both parties responsible for protecting themselves and their partner. Vaccination of both men and women in sufficient numbers could potentially halt the spread of HPV.

### References

1. Michels, K. (2009). "HPV vaccine for all." *The Lancet*. 374 (9686), 268 – 270. DOI: 10.1016/S0140-6736(09)61247-2
2. Young, S. (2009, September 9). "FDA panel urges HPV vaccine be given to boys." *CNN News*. <<http://www.cnn.com/2009/HEALTH/09/09/fda.gardasil.males/index.html>>
3. (2008, February 29). "HPV vaccine for men" <<http://www.ucsf.edu/science-cafe/articles/hpv-vaccine-for-men/>>
4. Healy, B. (2008, November 14). "HPV vaccine for men: it's about time." *U.S. News and World Report*, < <http://health.usnews.com/blogs/heart-to-heart/2008/11/14/hpv-vaccine-for-men-its-about-time.html>>
5. Medical College of Georgia (2004, November 26). HPV Vaccine Studied For First Time In Men. *ScienceDaily*. <<http://www.sciencedaily.com/releases/2004/11/041123162300.htm>>
6. Castle, P. (2009). "Should HPV vaccine be given to men?" *BMJ*. 2009; 339:b4127. DOI: 10.1136/bmj.b4127