# FAQS HPV and HPV Vaccination

## 1. What is the Human Papillomavirus (HPV)?

Human Papillomavirus (HPV) is the most common sexually transmitted infection (STI) and it is reported that over 80% of people is expected to get infected with any HPV subtype in their lifetime.

HPV is mainly transmitted through sexual contact which includes oral, vaginal or anal sex as well as close skin to skin contact.

Both men and women should get vaccinated against HPV. This is simply because certain strains of the HPV virus can cause cancers of the cervix, vulva and vagina in women while in men, it causes cancer of the penis, anus and throat. Some of these strains also cause genital warts among both men and women.

## 3. What is the difference between these different types of HPV vaccine?

- The vaccines differ by the number of HPV subtypes that they protect against.
- Bivalent (Cervarix) protects against 2 subtypes of HPV (16 and 18)
- Quadrivalent (Gardasil 4) protects against 4 subtypes of HPV (6, 11, 16 and 18)
- Nonavalent (Gardasil 9) protects against 9 subtypes of HPV (6, 11, 16, 18, 31, 33, 45, 52 and 58)
- Both Gardasil 4 & 9 however still protect against the four most common viruses - HPV 16 & 18 that causes 70% of all cervical cancer cases and HPV 6 & 11 that causes 90% of all genital warts.

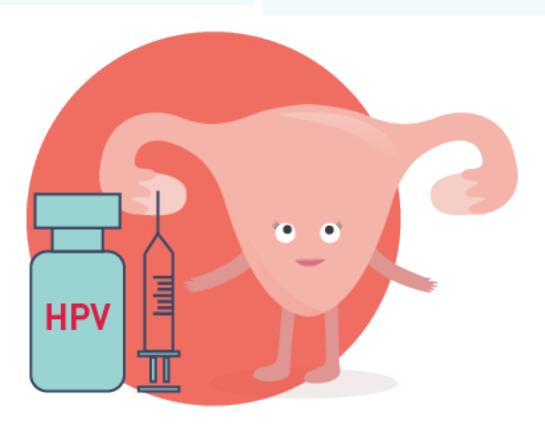
#### 2. What is the HPV vaccine?

HPV vaccines are vaccines that can protect you against infection by different HPV subtypes which are most commonly linked to various cancers and genital warts.

To date, there are three HPV vaccines that are being marketed in many countries throughout the world: these are Cervarix (bivalent), Gardasil-4 (quadrivalent) and Gardasil-9 (nonavalent vaccines).

#### 4. Who should be vaccinated against HPV?

- Children and adults (9 to 26 years old) If the vaccination were given before 20 years old, 1 dose will be sufficient.
- Adult (27 to 45 years old) HPV vaccination in this age range provides less benefit because most people would have already been exposed to the virus by this time.
  2 doses will be required (4 months after the first dose)



## Further questions you may have on the HPV Vaccine (Gardasil 4 & 9)



#### 1. Why do I need to get the HPV vaccine?

By being vaccinated, it protects and prevent you from infecting or being infected by the virus from your sexual partner(s).

#### 2. Can I not take the 3rd dose of HPV vaccine?

It is highly recommended to complete the 3-dose vaccination schedule for adults to ensure optimal immune response against the virus. However, if you are unable to complete 3 doses, you are still protected against the virus upto 80-90%.

## 3. I'm sexually active, should I get the HPV vaccine?

Yes, you should! This is because while you may have been infected with one strain of the HPV virus, the vaccine can still protect you against other strains for the virus and this will reduce your ultimate risk of getting genital warts and cancers in the long run.

#### 4. Is HPV vaccination safe?

Yes, they are. According to the Center of Disease Control (CDC), the HPV vaccine have been proven to be very safe and effective, after 10 years of continuous monitoring and research.

## 5. Do I need to be closely monitored after the vaccination?

No, there is no need for a special health check or close monitoring after vaccination. However, those who have received the vaccine are highly advised to continue with routine cancer screenings as recommended by their medical doctors.

## 6. Will I experience any side effects from getting HPV vaccine?

You may experience mild side effects, including redness, swelling or soreness in the injected area, which is common. Besides that, no other serious side effects have been reported.

## 7. Are HPV vaccines safe for expecting or pregnant women?

The HPV vaccine is not recommended for pregnant women as more research is needed to confirm if the vaccine is safe for babies whose mothers were vaccinated during pregnancy.

#### 8. Should children get the HPV vaccine?

Yes. As recommended by the World Health Organization, children should get vaccinated against HPV and the best time for them to be vaccinated is between 9 – 14 years old.

This is because the immune response is stronger during this time and the vaccine is most effective if given before a person comes in contact with the targeted HPV viruses.

#### 9. What is the dosage of Gardasil?

The recommended HPV vaccine dose is 0.5 mL via an intramuscular injection, given in a 2-dose or a single dose depending on the age range. A single-dose HPV vaccine is given to adolescents aged 9–20 years old while the 2-dose HPV vaccine series is given to adults aged 21 years old and above.

#### 10. How is the scheduling of Gardasil 4 like?

- \* For children aged 9 20 years old, a single-dose given
- \* For those who aged 21 years old and above, a 2-dose series is given with the minimum interval of 4 months between 1st and 2nd dose series is given with the minimum interval of 4 months between 1st and 2nd dose.

#### References

- 1. Gardasil Package Insert [Internet]. Fda.gov. 2019 [cited 6 November 2019]. Availablefrom:https://www.fda.gov/files/vaccines,%20blood%20&%20biologics/published/Package-Insert---Gardasil.pdf
- 2. Gardasil [Internet]. Ema.europa.eu. 2019 [cited 6 November 2019]. Available from: https://www.ema.europa.eu/en/documents/product information/gardasil-epar-product-information\_en.pdf
- 3. HPV | For Clinicians | Vaccination Schedules and Recommendations | CDC [Internet], Cdc.gov. 2019 [cited 6 Novembe 2019]. Available from: https://www.cdc.gov/hpv/hcp/schedules-recommendations.html
- 4. Human Papillomavirus (HPV) Vaccines [Internet]. National Cancer Institute. 2019 [cited 6 November 2019]. Available from: https://www.cancer.gov/about-cancer/causes-prevention/risk/infectious-agents/hpv-vaccine-fact-sheet
- Luckett R, Feldman S. Impact of 2-, 4-and 9-valent HPV vaccines on morbidity and mortality from cervical cancer. Human vaccines & immunotherapeutics. 2016 Jun 2;12(6):1332-42.
- Markowitz LE, Dunne EF, Saraiya M, Chesson HW, Curtis CR, Gee J, Bocchini Jr JA, Unger ER. Human papillomavirus vaccination: recommendations of the Advisory Committee on Immunization Practices (ACIP). Morbidity and Mortality Weekly Report: Recommendations and Reports. 2014 Aug 29;63(5):1-30.
- Meites E, Kempe A, Markowitz LE. Use of a 2-dose schedule for human papillomavirus vaccination—updated recommendations of the Advisory Committee on Immunization Practices. American Journal of Transplantation. 2017 Mar; 17(3):834-7
- Stanley M, Wheeler C. . HPV VLP vaccines-alternative dosage schedules and immunization in immunosuppressed subjects. InPrimary End-points for Prophylactic HPV Vaccine Trials 2014. International Agency for Research on Cancer