

What can you do to prevent HPV and cervical cancer?

A decision aid for parents/guardians of girls in Grade 8 in Ontario

This decision aid is for you if:

- You are a parent/guardian of a girl in Grade 8 in Ontario who has been offered the HPV vaccine.

What is HPV?

- Human Papillomavirus (or HPV) is the virus that causes cervical cancer.
- HPV is a common virus that affects both females and males. It is spread by having sex with someone who has the virus.
- HPV infection is the most common sexually transmitted disease. At some point in their lives 80% of females will be infected, often between the ages of 16 and 24.
- There are over 100 types of the HPV virus. Some can cause genital warts and others pre-cancerous cells, cervical cancer and other types of cancer.
- Cervical cancer is the second most common cancer in Canadian females aged 20 to 44.

What is HPV vaccination?

- Canada approved the use of the vaccine Gardasil® in July 2006 to prevent HPV (types 6, 11, 16, and 18). These types of HPV cause over 90% of genital warts and 70% of cervical cancers.
- The vaccine has been studied in females between the ages of 13 and 26 who were then followed for 3 to 5 years.
- No one is sure how long the vaccine will protect girls from getting these types of HPV.
- The 10 year follow-up data from the Nordic Cancer Registry will be available in 2012. If the data show that the immunity provided by the vaccine drops off, girls may require a booster shot.
- Health Canada recommends that girls receive the vaccine before they become sexually active.
- The vaccine does not cure people who already have genital warts or pre-cancerous cells.
- There is no evidence that giving girls this vaccine encourages them to have sex.
- All females, even those who get the HPV vaccine, should have regular Pap tests and use condoms once they become sexually active.

What are your daughter's options?



Take the HPV vaccine now when offered at school. Have the vaccine (given in three shots over 6 months) when it is administered by the public health department at school. The government pays for the HPV shots.



Take the HPV vaccine later at the doctor's office or a special clinic. Arrange to have the vaccine (given in three shots over 6 months) at a later time. You might have to pay for the HPV vaccine. The total cost of the three shots in Canada is about \$400.



Decline the HPV vaccine. Do not take the HPV vaccine.

What other health factors may affect your choice?



You should talk to your doctor BEFORE your daughter has the vaccine if you answer "Yes" to any of the following statements.

My daughter...	Yes	No
...has already been fully vaccinated with the HPV vaccine.	<input type="checkbox"/>	<input type="checkbox"/>
...has a yeast allergy or an allergy to a vaccine component.	<input type="checkbox"/>	<input type="checkbox"/>
...may be pregnant.	<input type="checkbox"/>	<input type="checkbox"/>



Working through the 4 steps of this decision aid may help you decide.

Step 1: What are the benefits and side effects of each option?

The numbers below represent our 'best estimate' based on current research of what happens to **10,000 females** who choose different options. The shaded areas show the number affected. There is no way of knowing in advance if your daughter will be among the ones affected.

Benefits	 Decline the vaccine	 Vaccine now or later
Fewer females get pre-cancerous cells that may lead to cancer if they choose the vaccine.	99 of 10,000 have this 9,901 of 10,000 avoid this	1 of 10,000 have this 9,999 of 10,000 avoid this
Fewer females get genital warts if they choose the vaccine.	251 of 10,000 have this 9,749 of 10,000 avoid this	0 of 10,000 have this 10,000 of 10,000 avoid this

The numbers in the above table come from 3 research studies of the Gardasil® quadrivalent vaccine (Villa et al, Future I and Future II). The studies of the Gardasil® vaccine have included 15,532 females followed for 3 to 5 years after receiving the vaccine.

Minor Side Effects	 Placebo	 Vaccine now or later
More females have a minor side effect (redness, tenderness and swelling at the injection site, fever, nausea, dizziness and headache) if they choose the vaccine	7,745 of 10,000 have this 2,255 of 10,000 avoid this	8,641 of 10,000 have this 1,359 of 10,000 avoid this

Serious Side Effects









There is **no difference** in the number of females who have a **serious side effect** (blood clots or death) if they choose or decline the vaccine.

There is **no difference** in the number of females who get **Guillain-Barré Syndrome** if they choose or decline the vaccine.

Vaccines can result in a **serious allergic reaction**. If 100,000 females receive the vaccine, 1 to 3 females may have a serious allergic reaction. Health professions who give the vaccine are trained to handle these reactions and there have been no deaths from the vaccine.

Step 2. Which reasons to choose each option matter most to you?

Common reasons to choose each option are listed below. Mark ✓ how much each reason matters **to you** on a scale from 0 to 5. '0' means it is **not** important to you. '5' means it is **very** important to you.

How important is it that...	Not Important	Very Important	Options	
... your daughter avoids getting pre-cancerous cells?	① ② ③ ④ ⑤	① ② ③ ④ ⑤	 Now	 Later
... your daughter avoids getting genital warts?	① ② ③ ④ ⑤	① ② ③ ④ ⑤	 Now	 Later
... you avoid the cost of the vaccine?	① ② ③ ④ ⑤	① ② ③ ④ ⑤	 Now	✗ Decline the vaccine
... you avoid the inconvenience of arranging for your daughter to get the vaccine at the doctor's office or a special clinic?	① ② ③ ④ ⑤	① ② ③ ④ ⑤	 Now	✗ Decline the vaccine
... you wait until there is more information about the long-term effectiveness of the vaccine (more than 5 years)?	① ② ③ ④ ⑤	① ② ③ ④ ⑤	 Later	✗ Decline the vaccine
... your daughter avoids the minor side effects of the vaccine (such as redness, tenderness and swelling at the injection site, fever, nausea, dizziness and headache)?	① ② ③ ④ ⑤	① ② ③ ④ ⑤		✗ Decline the vaccine
... your daughter avoids the serious side effects of the vaccine (such as a serious allergic reaction)?	① ② ③ ④ ⑤	① ② ③ ④ ⑤		✗ Decline the vaccine
... you take more time before deciding if your daughter should take the vaccine?	① ② ③ ④ ⑤	① ② ③ ④ ⑤		 Later
List other reasons that are important:	① ② ③ ④ ⑤	① ② ③ ④ ⑤		
List other reasons that are important:	① ② ③ ④ ⑤	① ② ③ ④ ⑤		

Now, thinking about the reasons that are most important to you...

Which option do you prefer for your daughter? Check one.

- That she take the HPV vaccine now when offered at school.
- That she take the HPV vaccine later at the doctor's office or a special clinic.
- That she decline the HPV vaccine.
- I don't know

Step 3: What else do you need to prepare for decision making?



Knowledge

Find out how well this decision aid helped you learn the key facts.

Check the best answer.

	Vaccine now	Vaccine later	Decline vaccine	Don't know
1. Which option has the <u>lowest</u> chance of getting cervical cancer ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Which option has the <u>lowest</u> chance of getting genital warts ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Which option has the <u>lowest</u> chance of a serious side effect (such as a serious allergic reaction)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1-2 years	3-5 years	6-10 years	More than 10 years
4. How many years have the long term effects of the HPV vaccine been studied?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Check your answers at the bottom of the page.

Do you know enough about the benefits and side effects of each option?

Yes

No



Values

Are you clear about which benefits and side effects matter most to you?



Support

Do you have enough support and advice from others to make a choice?



Uncertainty

Do you feel sure about the best choice for your daughter?

Step 4: What are the next steps?

Check your next steps:

- I have decided my daughter will take the HPV vaccine now when offered at school.
- I have decided my daughter will take the HPV vaccine later at the doctor's office or a special clinic.
- I have decided my daughter will decline the HPV vaccine.
- I need to discuss the options with my doctor and family.
- I need to read more about my options.
- Other, please specify _____

This information is not intended to replace the advice of a health care provider.

Answers for the key facts: 1. vaccine now 2. vaccine now 3. decline vaccine 4. 3-5 years

Content editors: C. Bennett MSc, E. Drake MHA, L. Hopkins MD MSc, A. O'Connor RN PhD. Funded in part by: Canadian Institute of Health Research and the Canada Research Chairs Program. All authors have declared no conflict of interest.

Format based on the Ottawa Personal Decision Guide © 2000, A O'Connor, D Stacey, University of Ottawa, Canada.

Estimates based on: Rambout L, Hopkins L, Hutton B FD. Prophylactic vaccination against human papillomavirus infection and disease in women: a systematic review of randomized controlled trials. CMAJ 2007; 177(5):469-479. For more information: <http://decisionaid.ohri.ca>.

Publication date: December 2009. Next update due: December 2011.