

Should You Take the H1N1 Vaccine?



Answers to the most common questions about the safety and effectiveness of the newly approved swine flu vaccine.

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Yesterday, Health Canada approved Arepanrix, a vaccine for H1N1 influenza produced in Canada by GlaxoSmithKline. It will soon be available to Canadians who will now have to decide whether or not to get vaccinated.

Unfortunately, many Canadians are a little confused about the facts. While the Canadian Pandemic Preparedness Plan called for "ongoing updates to keep Canadians well-informed about what is happening and what to do as a result," Canadians have been given contradictory and incomplete information over the past several months.

The time for confusion is over. Canadians need reliable, accurate information about the H1N1 flu vaccine in order for them to make good decisions about it. Here are answers to some of the key questions:

What is an adjuvant? Why do you put an adjuvant in a vaccine? And, is an adjuvant-free vaccine better?

The H1N1 vaccine comes in two parts. There is the antigen and the adjuvant.

The antigen is a small amount of chopped-up, killed H1N1 virus. This viral material is given to stimulate the body to develop immunity against the live H1N1 virus. The adjuvant is an oil and water substance that helps to boost the body's immune response, so that less antigen – that is, less killed virus – is needed.

Pregnant women will be given a higher concentration of the antigen and none of the adjuvant. There is no evidence that a vaccine with an adjuvant is less safe than a vaccine without an adjuvant, but for now a decision has been made to minimize the injection of additional substances into pregnant women by offering them an adjuvant-free vaccine.

Pregnant women are among those who are at increased risk of H1N1 infection. The adjuvant-free vaccine for pregnant women has not yet been shipped to the provinces or territories. According to the government of Canada, it will be available in early November.

Is the H1N1 vaccine with adjuvant safe?

The H1N1 flu vaccine has not been used before. For this reason, research was done (and continues to be done) in Canada and elsewhere to test the safety of the vaccine with adjuvant, to see if there are any negative side effects.

Scientists and medical practitioners already know a lot about the safety of the seasonal flu vaccine. The antigen in that vaccine is very similar to the antigen in the H1N1 vaccine, and for this reason scientists are confident about its safety. As well, H1N1 vaccine has been given to several thousand people in clinical trials, and now in practice in the United States and Australia and it appears to be safe. The Canadian GSK H1N1 vaccine is similar to these, except for the addition of the adjuvant.

Scientists also know a lot about the safety of the adjuvant. The adjuvant for the H1N1 vaccine has been tested in Canada and in many other countries in a vaccine for a different influenza virus called H5N1 (sometimes called bird flu). It has also been tested in studies of a new seasonal flu vaccine for the elderly. It has no known short- or long-term serious harmful side effects.

So, we have good reason to believe that the H1N1 vaccine will be safe but, of course, we cannot be sure.

What are the likely side effects of the H1N1 vaccine?

Most people who receive the H1N1 vaccine will experience some pain at the injection site and many will have tenderness for a day or two. A few people will develop a fever, and some will have muscle aches and pains for a few days. We know this from our experience with seasonal flu vaccines, as well as those for H5N1 and H1N1 flu. Acetaminophen or ibuprofen might be used to reduce these side effects.

A recent study of young children who were given acetaminophen following vaccination (a complex of six vaccines given at the same time in the same injection) showed a lower overall immune response in the children. Most of them, however, still had enough of a response to protect against the six bacteria and viruses for which they were being vaccinated. This suggests that the effect of acetaminophen on immune response is small. However, studies on the impact of acetaminophen following vaccination for the H1N1 flu virus are not available at this time.

If I am going to get the H1N1 vaccine, should I get it before or after the seasonal flu vaccine? Or should I skip the seasonal flu vaccine if I am getting the H1N1 vaccine?

Provincial and territorial public health officials will decide which vaccines will be available when, in part based on the number of nurses, doctors, and others available to deliver them. In places where H1N1 cases have already been reported, provinces and territories plan to start H1N1 immunization clinics as soon as the H1N1 vaccine is available and before clinics for seasonal flu. Some public health authorities plan to offer both vaccines at the same time.

There is some confusion about the order of vaccines because of unpublished data suggesting there is an increased risk of H1N1 infection in people who have received the seasonal flu vaccine. This observation may or may not be accurate. So far, experts in the United States, Australia, and the United Kingdom have examined the data from their populations and have not seen an increased risk of H1N1 infection. Until this issue has been sorted out, some provinces have chosen to delay seasonal flu vaccine until after H1N1 flu vaccine is given.

Why is Canada getting the H1N1 flu vaccine later than other countries?

There are differences between countries in the timing of the availability of the H1N1 flu vaccine because of differences between the schedules of production companies. Canada has contracted with one company (GSK) for the vaccine. GSK manufactures vaccine in two facilities – one in Dresden, Germany and one in Quebec. The facility in Quebec is responsible for producing the vaccine for Canada, but did not start until it had finished its production of seasonal flu vaccine. It is currently producing and shipping H1N1 vaccine.

So these are the facts. Now the practical (and ethical) question is *why* should you (or anyone else) get the H1N1 flu vaccine?

The short and simple answer to this question is that the H1N1 vaccine is a safe way to help prevent infection and the spread of illness. There are both selfish and altruistic reasons to get vaccinated. From a selfish perspective, the vaccine against H1N1 will potentially help you to fight off infection. From an altruistic perspective, if you don't become infected with H1N1, then you will not infect others, including your loved-ones.