



Is the H1N1 vaccine safe?

The H1N1-specific vaccine was manufactured in the same way as the regular vaccine. Over the years, hundreds of millions of Americans have received seasonal flu vaccines. This technology has been used to make influenza vaccines for 60 years, and it has an excellent safety record. The nasal spray form is made by adapting the virus to temperatures below those typically found in the body. This allows it to reproduce in the relatively cool lining of the nose, but not in the lungs where it could cause harm. This technology has been used safely for more than 30 years. FluMist, a seasonal flu vaccine used since 2003, is made the same way.

How much testing was done on the H1N1 vaccine?

The vaccine has already been given to thousands of volunteers to determine whether it could protect them from the virus and to make sure that it caused no adverse reactions. The Food and Drug Administration licensed it only after the tests were completed.

Does the vaccine contain a dangerous adjuvant?

Some vaccines, like the hepatitis B and human papillomavirus vaccines, have substances called adjuvants, which are added to enhance the immune response, so that smaller quantities of vaccine can be given. Some people fear that the H1N1 vaccine contains, in particular, squalene, an adjuvant that, while included in other vaccines in Europe and Canada, has never been used in routine vaccines in the United States. But the H1N1 vaccine available in the United States has no adjuvant of any kind.

Does the vaccine contain a dangerous preservative?

Thimerosal, a preservative containing ethyl mercury that has been in vaccines since the 1930s, is used to prevent inadvertent bacterial and fungal contamination of multi-dose vials. H1N1 vaccine distributed in multi-dose vials will contain about 25 micrograms of ethyl mercury per dose. The issue of thimerosal received public attention in 1999 when the American Academy of Pediatrics and the United States Public Health Service took the precautionary step of asking that thimerosal be removed from single-dose vials of all vaccines. This was done in such a precipitous and frightening manner that it gave rise to the notion that thimerosal had led to autism or mercury poisoning. It hadn't. But the public's perception of thimerosal was damaged. This year, enough thimerosal-free vaccine is available to inoculate children under age 6, but that does not mean doses with thimerosal are unsafe.