

# Q&A RSV & ADULTS: WHAT YOU SHOULD KNOW

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Each year, respiratory syncytial virus (RSV) kills about 10,000 people in the United States. While a few hundred are young children, most who die from RSV are elderly. It's estimated that each year about 60,000 to 160,000 adults 65 years and older are hospitalized with RSV.

## Q. What is respiratory syncytial virus (RSV)?

A. RSV is a virus that infects the lining of the nose, breathing tubes and lungs. It can also infect the voice box. The damage caused by viral replication leads to excess mucus and inflammation in the affected person's breathing tubes.

## Q. What are the symptoms of RSV?

A. People with RSV can experience coughing, sneezing, runny nose, wheezing and breathing problems. For people with chronic conditions of the lungs, like asthma, an RSV infection can cause a worsening of their existing condition. For young infants with narrow airways, an RSV infection can cause them to become apneic, meaning they stop breathing for short periods of time. RSV can also cause generalized symptoms like tiredness, fever, or loss of appetite.

People with severe disease can experience complications, like pneumonia, bronchitis, bronchiolitis and croup.

## Q. Who is at risk from RSV?

A. While anyone can get RSV, a few groups are at greater risk for more severe disease. These include infants in the first eight months of life, adults 75 years of age and older, and adults 60 years and older with chronic conditions that increase their risk of infection, such as diabetes, obesity, and chronic lung and heart disease. Some babies between 8 and 19 months of age remain at increased risk if they have chronic lung disease due to premature birth, are severely immune compromised, have cystic fibrosis with lung disease, or are of American Indian or Alaskan Native descent.



## Q. How is the RSV vaccine made?

A. Three RSV vaccines are available for adults. All three of the vaccines target a protein on the surface of the virus called the F protein. Two of the vaccines (Abrysvo and Arexvy) deliver this protein directly.

The third vaccine (mRexvia) is based on mRNA technology. Like COVID-19 vaccines, this RSV vaccine contains a piece of mRNA that codes for the target protein and is delivered in lipid particles. Once delivered, the recipient's cells produce the F protein and their immune system responds to it. The lipid particles protect the mRNA and serve as an adjuvant to increase the immune response.

Of the two protein-based vaccines, one (Arexvy) includes the same adjuvant used in the shingles vaccine, which is made of monophosphoryl lipid A and QS21. Monophosphoryl lipid A was isolated from the surface of bacteria, and QS21 is a soap-based molecule isolated from the bark of *Quillaja saponaria* trees.

## Q. Is the RSV vaccine safe?

A. Yes. Some people experience pain, redness and swelling at the injection site; tiredness; fever; headache; nausea; diarrhea and muscle or joint pain.

During clinical trials of the protein-based vaccines, slightly more vaccinated than unvaccinated people experienced Guillain-Barré syndrome (GBS), but the numbers were small. Since the vaccine has been in use, this condition does not seem to be associated with receipt of the vaccine, but the numbers remain small. For this reason, monitoring for this possible association is ongoing.

GBS was not found during clinical trials of the mRNA-based vaccine, but this will continue to be monitored as more people get this version of the vaccine.

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**Q. Does the RSV vaccine work?**

**A.** Yes. The protein-based RSV vaccines protect about 7 or 8 of every 10 people who get vaccinated from having RSV disease that is serious enough to require urgent care, emergency room visits and hospitalization.

In clinical trials, the mRNA-based RSV vaccine protected about 6 to 8 of every 10 people from having severe RSV; however, more data will emerge as this vaccine is used in the community.

**Q. Who should get the RSV vaccine?**

**A.** The RSV vaccine is recommended for the following groups of adults:

- Those 75 years of age and older
- Adults 60 to 74 years of age with health conditions that increase their risk for severe disease, including those with chronic disease of the heart, lungs, liver or blood; advanced kidney disease or diabetes with organ damage; and immune-compromising, neurologic or neuromuscular conditions. People in this age group who live in nursing homes or other long-term care facilities and those considered to be medically frail are also at increased risk. Finally, those who have other chronic conditions that may increase their risk of severe respiratory infection are also in this group.

Pregnant people who will deliver during RSV season can get vaccinated between 32 and 36 weeks of gestation; however, unlike the aforementioned groups, pregnant people are not at increased risk of severe RSV. Rather, this vaccine recommendation aims to protect the individual's unborn baby during the first few months of life. For more information on this, check our companion piece, "Protecting Babies from RSV: What You Should Know."

**Q. Should I get the RSV vaccine each fall?**

**A.** No. Adults are currently recommended to get only a single lifetime dose of RSV vaccine. Over time, if immunity wanes, additional doses may be recommended, but for now this change is not anticipated.

**Q. Is one of the RSV vaccines preferred over the others?**

**A.** No. Although the protein-based vaccines have been available a year longer than the mRNA vaccine, the clinical trials of the mRNA vaccine indicated that it was equally protective.

**Q. When is the best time of year to get the RSV vaccine?**

**A.** Other than during pregnancy, the timing for receipt of RSV vaccine is not specified. However, since RSV season occurs in the fall and winter, getting the vaccine in late summer or early fall will position people to have higher antibody levels during their first RSV season after getting vaccinated.



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