

# **Protect yourself and loved ones with the new RSV vaccines**

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Transmission electron micrograph of RSV. Credit: CDC/ Dr. Erskine Palmer / Public Domain

National medicine regulator, the Food and Drug Administration (FDA), recently approved the world's first vaccines to prevent RSV, or



respiratory syncytial virus, for infants and elderly adults.

The disease is the leading cause of hospitalizations in children under 1, and nearly everyone will have had RSV by the age of two. Each year, the virus kills up to 10,000 <u>elderly adults</u> in the United States. UC San Francisco infectious disease expert Peter Chin-Hong, MD breaks down the breakthrough in RSV prevention as we head into fall when infections are expected to rise.

### What is RSV?

RSV is a virus that can cause lung and respiratory tract infections such as bronchiolitis and pneumonia. Most RSV infections clear up by themselves in a couple of weeks but for some people at high risk it can cause serious illness, leading to hospitalization or death.

### Who is most at risk for serious RSV?

- Anyone with a weak immune system
- Infants under age 1, especially those 6 months or younger and those born premature
- Children younger than 2 years with chronic lung or heart conditions
- Children who have neuromuscular disorders, including those who have difficulty swallowing
- Adults over 60
- Adults with chronic heart or lung conditions
- Adults living in nursing homes or long-term care facilities

### How do people contract RSV?

RSV spreads much like the common cold via droplets of salvia released



into the air when <u>sick people</u> cough or sneeze. These droplets carry the virus, spreading it when they come into contact with our eyes, noses or mouths. These same droplets also land on surfaces, contaminating them and making those surfaces infectious too for some time.

### What are RSV's symptoms?

RSV symptoms are like those of a cold: congestion, fever, cough, wheezing and a sore throat. In young babies, RSV's only signs may be difficulty breathing, irritability and decreased activity. Older adults and babies younger than 6 months may need to be hospitalized if they have trouble breathing, become dehydrated or their symptoms worsen.

### **Can vaccines protect against RSV?**

Yes, this year, the FDA approved the first RSV vaccines, Abrysvo and Arexvy, to protect people 60 years and older from serious illness. More recently, the FDA also approved Abrysvo for those who are pregnant to help safeguard infants from the virus.

### Who should get vaccinated for RSV?

People 60 years and older or those who are pregnant in their last trimester should all talk to their health care provider about whether the vaccination is right for them.

# What should I know about RSV vaccinations for infants?

In late August, the FDA approved Abrysvo for infants but there's a catch: We don't give it directly to babies. Instead, the <u>vaccine</u> is given to those in their last trimester of pregnancy to help them produce



antibodies—or defenses—against RSV. Those who are pregnant pass antibodies to their fetuses in the womb and to babies as they chest or breastfed.

In large-scale clinical trials, babies born to women who received the shot had about an 82% lower risk of developing severe RSV within the first three months after birth. Although this protection slightly dropped as infants grew, they were still almost 70% less likely to develop severe RSV infections at six months. The vaccine offers babies powerful protection against RSV during one of the riskiest times of their lives and is expected to be available in late October or early November.

### What can I do to protect my baby now against RSV?

Suppose your baby is younger than 8 months. In that case, they may be eligible for another new prevention method: a single injection of monoclonal antibodies. This injection, called Beyfortus, cuts a baby's risk of serious RSV by about 75%. Beyfortus is likely to become available in October.

If your child is 8 to 19 months and at increased risk for RSV, they could still be eligible for Beyfortus, so you should ask your doctor. There is also an older monoclonal antibody injection already available called Palivizumab for high-risk infants, although it's expensive and must be taken monthly (five times during the RSV season).

### What are monoclonal antibodies?

Usually, we have to wait until we're sick for our bodies to produce the antibodies we need to fight off invading germs. Monoclonal antibodies are ready-made antibodies produced in a factory that target and neutralize a virus—in this case, RSV. By taking a monoclonal antibody,



babies' immune systems are ready to fight off RSV before it attacks.

### How effective is the RSV vaccine for older people?

In people 60 and older, the vaccines reduced the risk of severe RSV by about 86%.

## How long will the new RSV vaccine protect elders and infants from RSV?

For adults 60 and older, RSV vaccines are showing continued protection even two years after immunization. Based on this, the U.S. Centers for Disease Control and Prevention recommends only one dose of the RSV vaccines for seniors right now but this may change.

In infants, we know that the vaccine given to those who are pregnant protects babies for their first six months of life when they are most at risk for the virus. Beyfortus, the monoclonal antibody injection, similarly reduces the risk of RSV in infants for about five months—or one RSV season.

#### Does the new RSV vaccine have any side effects?

In adults, the most frequently reported side effects have been soreness at the injection site, muscle pain, fatigue, headache and joint pain. In the combined <u>clinical trials</u> of the vaccine, 20 out of more than 38,000 people who received the shot reported an abnormal heart rate about two weeks after vaccination. Eight people out of a similar number of folks in the trials who did not take the vaccine said the same. In addition, six people developed rare neurological complications.

Scientists are still figuring out if these irregular heartbeats or



neurological complications were linked to the vaccine, but if you have concerns talk to your doctor. What is clear is that the benefit of being protected against RSV for many people far outweighs this possible risk because we don't have good therapies once people get seriously ill with RSV.

It's a no-brainer to me for those who are immunocompromised, or with underlying <u>medical conditions</u> like lung and heart disease. For others, you may want to discuss with your health care provider first.

## Can I take the RSV vaccine alongside flu or COVID-19 shots?

You can get your COVID-19 and flu shots at the same time, but right now, it's best to wait a couple of weeks before getting the RSV vaccine—and vice versa.

Provided by University of California, San Francisco

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