

How the COVID-19 Vaccines Work



COVID-19 vaccines protect you from getting sick and dying from COVID

Currently, there are 3 vaccines approved in the U.S. — Pfizer/BioNTech, Moderna and Johnson & Johnson.

We are fortunate to have more than one vaccine to fight the same virus. Each of these vaccines has been proven to be safe and effective at preventing serious illness or death from COVID-19.

These have proved to be excellent vaccines. As we learn more about how the virus is changing there will be updates about whether we need a “booster shot.” It will take some time before enough people have the vaccine that we can stop using everyday prevention. In the meantime, continue to wash your hands and follow Oregon guidelines for wearing masks and physical distancing.

What they do

They teach your body how to recognize and fight the coronavirus that causes COVID-19.

The Pfizer and Moderna vaccines contain messenger RNA (mRNA). mRNA is like an instruction manual. It teaches your body how to make a harmless protein that looks like a protein on this coronavirus. Your body responds to the protein and creates disease-fighting cells and antibodies that can recognize and fight this coronavirus.

- The Johnson & Johnson vaccine is a viral vector vaccine. It contains a harmless adenovirus, from a family of viruses that causes the common cold. The adenovirus in the vaccine carries a gene from the spike protein of the coronavirus. This teaches your body how to recognize and fight the coronavirus that causes COVID-19. **Cleaning** refers to removing germs and dirt from surfaces.

- No matter what type of vaccine you get, your body will be ready to protect you if it sees this coronavirus in the future.

What they don't do

- They do not contain coronavirus and can't give you COVID-19.
- They do not change your DNA or genetic material.
- They do not cause infertility.

What's in the COVID-19 vaccines

The Pfizer and Moderna vaccines have mRNA and ingredients to help mRNA work in your body: fats, potassium, organic compounds to protect mRNA from too much acid, salt, and sugar.

The Johnson & Johnson vaccines have a modified adenovirus with information from the coronavirus on it. They also contain ingredients that help keep the vaccines stable: salts, sugars and other organic compounds.

The vaccines **do not** contain eggs, preservatives, latex, pork or other animal products, or fetal cells.

Who can get these vaccines?

- Anyone 12 years and older (Pfizer)
- Adults 18 years and older (Moderna and Johnson and Johnson)
- Talk with your doctor or clinic if you:
 - ◆ Are pregnant or breastfeeding, or
 - ◆ Have any serious allergies

Scientists are working on a vaccine for kids under 12.

Side effects

Many people experience mild side effects after getting the vaccine. This is a sign that your body is doing what it is supposed to do: building protection against the disease.

Common side effects include soreness or redness where you got the vaccine, a headache, tiredness, and/or low fever (less than 100.4). These symptoms are more common after the second dose.

These symptoms usually go away on their own within a few days. If they don't, call your doctor or clinic.

Rare, but serious, problems

Several cases of person experiencing a severe allergic reaction to these vaccines have been reported. To date (May 2121) in Oregon there have been only a handful to cases of sever allergic reaction to COVID-19 vaccines. To be safe:

Everyone who gets these vaccines must wait for at least 15 minutes afterwards, so medical staff can help them if they have a reaction.

If you've had a severe allergic reaction in the past, talk with your doctor or clinic.

The Johnson & Johnson vaccine could be linked with a very rare, but serious, blood clotting disorder. After more study, national and state health officials have agreed that the Johnson & Johnson vaccine is safe to use.

If you get the Johnson & Johnson vaccine, monitor yourself for these symptoms for three weeks after your shot:

- Severe headache or a headache that won't go away
- Blurred vision
- Chest pain or severe belly pain
- Leg swelling or pain
- Trouble breathing
- Easy bruising or tiny blood spots under your skin outside of where you got your shot

If you have any of these symptoms, call 911 or seek medical attention. It is important to tell the medical provider that you got the Johnson & Johnson vaccine so they can take care of you in the right way.

Support is available if you have questions or mixed feelings

You may feel hopeful that another vaccine will make it possible for more people to be vaccinated or for us to be around loved ones again. You may feel nervous. If you are a person of color, you may be wondering if you can trust vaccines from a medical system and a drug company that have broken trust with your community before. Medical racism in the past and present is real. It's understandable to have concerns. Learn more and get support:

- **Talk with your doctor or clinic. If you don't have a doctor, call 2-1-1 or text 898211** (English and Spanish texting available)
- Call the **Oregon Statewide Racial Equity Support Line** if you've been mentally and emotionally impacted by racism: 503-575-3764
- Call the **Oregon Statewide Safe + Strong Helpline** for emotional support and resource referral. You don't need to be in crisis. 1-800-923-HELP (4357)

Visit covidvaccine.oregon.gov for information, resources, and updates on the COVID-19 vaccine.

This was adapted from a document originally developed by Clackamas County, Columbia County, Multnomah County, and Washington County. These counties granted OHA permission to rebrand their local resource for statewide audiences.

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