

Rabies Vaccine: What you need to know

1. What is Rabies?

Rabies is a serious disease. It is caused by a virus.

Rabies is mainly a disease of animals. Humans get rabies when they are bitten by infected animals.

At first there might not be any symptoms. But weeks, or even months after a bite, rabies can cause pain, fatigue, headaches, fever, and irritability. These are followed by seizures, hallucinations, and paralysis. Human rabies is almost always fatal.

Skunks, raccoons, dogs, cats, coyotes, foxes and other mammals can also transmit the disease.

2. Rabies vaccine

Rabies vaccine is given to people at high risk of rabies to protect them if they are exposed. It can also prevent the disease if it is given to a person after they have been exposed.

Rabies vaccine is made from killed rabies virus. It cannot cause rabies.

3. Who should get rabies vaccine and when?

Preventive vaccination (no exposure)

- People at high risk of exposure to rabies, such as veterinarians, animal handlers, rabies laboratory workers, spelunkers, and rabies biologics production workers should be offered rabies vaccine.
- The vaccine should also be considered for:
 - People whose activities bring them into frequent contact with rabies virus or with possibly rabid animals.
 - International travelers who are likely to come in contact with animals in parts of the world where rabies is common.

The pre-exposure schedule for rabies vaccination is **3 doses**, given at the following times:

Dose 1:	As appropriate
Dose 2:	7 days after Dose 1
Dose 3:	21 days or 28 days after Dose 1

Vaccination after an exposure

Anyone who has been bitten by an animal, or who otherwise may have been exposed to rabies, should clean the wound and see a doctor immediately.

A person who is exposed and has never been vaccinated against rabies should get **4 doses** of rabies vaccine—one dose right away, and additional doses on the 3rd, 7th, and 14th days. They should also get another shot called Rabies Immune Globulin at the same time as the first dose.

A person who has been previously vaccinated should get **2 doses** of rabies vaccine—one right away and another on the 3rd day. Rabies Immune Globulin is not needed.

4. Tell your doctor if...

Talk with a doctor before getting rabies vaccine if you:

1. ever had a serious (life-threatening) allergic reaction to a previous dose of rabies vaccine, or to any component of the vaccine; tell your doctor if you have any severe allergies,
2. have a weakened immune system because of:
 - HIV/AIDS or another disease that affects the immune system,
 - treatment with drugs that affect the immune system, such as steroids,
 - cancer, or cancer treatment with radiation or drugs.

If you have a minor illnesses, such as a cold, you can be vaccinated. If you are moderately or severely ill, you should probably wait until you recover before getting a routine (non-exposure) dose of rabies vaccine.

If you have been exposed to rabies virus, you should get the vaccine regardless of any other illnesses you may have.

5. What are the risks from rabies vaccine?

A vaccine, like any medicine, is capable of causing serious problems, such as severe allergic reactions. The risk of a vaccine causing serious harm, or death, is extremely small. Serious problems from rabies vaccine are very rare.

Mild problems

- soreness, redness, swelling, or itching where the shot was given
- headache, nausea, abdominal pain, muscle aches, dizziness

Moderate problems

- hives, pain in the joints, fever

Other nervous system disorders, such as Guillain-Barré syndrome (GBS), have been reported after rabies vaccine, but this happens so rarely that it is not known whether they are related to the vaccine.

6. What if there is a serious reaction?

What should I look for?

- Look for anything that concerns you, such as signs of a severe allergic reaction, very high fever, or behavior changes.

Signs of a severe allergic reaction can include hives, swelling of the face and throat, difficulty breathing, a fast heartbeat, dizziness, and weakness. These would start a few minutes to a few hours after the vaccination.