Memorial Sloan Kettering Cancer Center

PATIENT & CAREGIVER EDUCATION

Smallpox and Mpox Vaccine (Live

This information from UpToDate® Lexidrug™ explains what you need to know about this medication, including what it's used for, how to take it, its side effects, and when to call your healthcare provider.

Brand Names: US

ACAM2000

Brand Names: Canada

ACAM2000

Warning

- Severe heart problems like swelling of the heart tissue have happened with this vaccine. This can lead to an abnormal heartbeat, which can be deadly. Some health problems can raise the chance of these effects. Tell the doctor about all current or past health problems. Call the doctor right away if you have a fast or abnormal heartbeat, chest pain or pressure, shortness of breath, severe dizziness, or passing out.

- Severe health problems have happened with this drug. These include swelling of the brain or spinal cord, eye problems, allergic reactions, severe skin problems, and vaccine site infections. These health problems can lead to disability or problems that may not go away, like blindness. Sometimes, they can lead to death. The chance is raised in infants younger than 12 months. Some health problems can raise the chance of these effects. Tell your doctor if you have a weak immune system or if you take drugs to weaken your immune system. Tell your doctor if you have ever had heart disease or skin problems like eczema. Tell your doctor if you have eye disease and use steroid eye drops or ointment.
- Use of this drug during pregnancy has caused smallpox infection and death in the unborn baby. If you are pregnant, talk with your doctor. You will need to talk about the benefits and risks of using this vaccine while you are pregnant.
- This vaccine is a live virus. It can spread to other parts of the body. It can also spread to other people until the vaccine scab falls off (3 to 6 weeks after getting the vaccine). If the virus is spread to another person, it can cause severe and sometimes life-threatening side effects. Talk with the doctor.

What is this drug used for?

- It is used to prevent certain pox viruses, which may include smallpox and mpox.

What do I need to tell my doctor BEFORE I take this drug?

- If you are allergic to this drug; any part of this drug; or any other drugs, foods, or substances. Tell your doctor about the allergy and what signs you had.
- If you have a weak immune system.

This is not a list of all drugs or health problems that interact with this drug.

Tell your doctor and pharmacist about all of your drugs (prescription or OTC, natural products, vitamins) and health problems. You must check to make sure that it is safe for you to take this drug with all of your drugs and health problems. Do not start, stop, or change the dose of any drug without checking with your doctor.

What are some things I need to know or do while I take this drug?

- Tell all of your health care providers that you take this drug. This includes your doctors, nurses, pharmacists, and dentists.

- Vaccines may not fully protect all people who get them. If you have questions, talk with the doctor.
- This drug may affect certain lab tests. Tell all of your health care providers and lab workers that you take this drug.
- Do not put creams or ointments on the vaccine site. Do not scratch or pick at the vaccine site.
- Keep the vaccine site dry. Cover the vaccine site with a waterproof bandage when bathing or showering. Do not touch or scrub the site. After you are out of the bath or shower, cover the site as you have been told.
- This drug has a live virus in it. The virus can spread to other people and cause severe side effects. The chance may be raised if you have close contacts with skin problems, impetigo, chickenpox, shingles, heart problems, or immune system problems. The chance may also be raised if you are in close contact with a baby, or someone who is pregnant or breast-feeding. If you have questions, talk with your doctor.
- You must take care of the vaccine site to prevent spread of the virus. Severe effects and death have happened in other people who have come into contact with the vaccine site. Wear certain types of bandages to cover the whole vaccine site. Keep the site covered until the

scab falls off on its own. If you are not sure which type of bandage to use, talk with your doctor. Wear sleeves to cover the site.

- Wear gloves when you change bandages. Throw away the gloves and used bandages in sealed or double plastic bags. Add a small amount of bleach to the bag to kill the virus.
- Wash your hands well after changing the bandage. Wash your hands well after any other contact with the vaccine site.
- When the scab falls off, throw it away in a sealed plastic bag with a small amount of bleach.
- Clothing or other items that may have come into contact with the vaccine site must be washed separately in hot water with detergent and bleach.
- Do not donate blood or an organ for at least 6 weeks after getting this vaccine.
- If you may become pregnant, you must avoid pregnancy for 6 weeks after getting this vaccine and until the vaccine site has healed. If you get pregnant, call your doctor right away.
- If your sex partner may become pregnant, you must avoid getting your partner pregnant for 6 weeks after getting this vaccine and until the vaccine site has healed.

If your sex partner gets pregnant, call the doctor right away.

- Tell your doctor if you are breast-feeding. You will need to talk about any risks to your baby.

What are some side effects that I need to call my doctor about right away?

WARNING/CAUTION: Even though it may be rare, some people may have very bad and sometimes deadly side effects when taking a drug. Tell your doctor or get medical help right away if you have any of the following signs or symptoms that may be related to a very bad side effect:

- Signs of an allergic reaction, like rash; hives; itching; red, swollen, blistered, or peeling skin with or without fever; wheezing; tightness in the chest or throat; trouble breathing, swallowing, or talking; unusual hoarseness; or swelling of the mouth, face, lips, tongue, or throat.
- Severe dizziness or passing out can happen after or sometimes before getting a vaccine. Tell your doctor right away if you feel dizzy.
- Change in eyesight.
- Loss of eyesight.
- If bright lights bother your eyes.
- Seizures.

- A burning, numbness, or tingling feeling that is not normal.
- Severe skin reactions have happened with this drug. These have included Stevens-Johnson syndrome (SJS), toxic epidermal necrolysis (TEN), and other severe skin reactions. Sometimes these have been deadly. Get medical help right away if you have signs like red, swollen, blistered, or peeling skin; other skin irritation (with or without fever); red or irritated eyes; or sores in your mouth, throat, nose, or eyes.

What are some other side effects of this drug?

All drugs may cause side effects. However, many people have no side effects or only have minor side effects. Call your doctor or get medical help if any of these side effects or any other side effects bother you or do not go away:

- Pain, redness, swelling, or other reaction where the injection was given.
- Itching.
- Feeling tired or weak.
- Feeling hot.
- Fever or chills.
- Headache.
- Constipation, diarrhea, throwing up, or upset stomach.

- Swollen gland.
- Muscle pain.

These are not all of the side effects that may occur. If you have questions about side effects, call your doctor. Call your doctor for medical advice about side effects.

You may report side effects to your national health agency.

Report side effects to the FDA/CDC Vaccine Adverse Event Reporting System (VAERS) at https://vaers.hhs.gov/reportevent.html or by calling 1-800-822-7967.

How is this drug best taken?

Use this drug as ordered by your doctor. Read all information given to you. Follow all instructions closely.

- A droplet of the vaccine will be placed on the skin of the upper arm, and the skin will be pierced with a special needle.

What do I do if I miss a dose?

- Call your doctor to find out what to do.

How do I store and/or throw out this drug?

- If you need to store this drug at home, talk with your doctor, nurse, or pharmacist about how to store it.

General drug facts

- If your symptoms or health problems do not get better or if they become worse, call your doctor.
- Do not share your drugs with others and do not take anyone else's drugs.
- Keep all drugs in a safe place. Keep all drugs out of the reach of children and pets.
- Throw away unused or expired drugs. Do not flush down a toilet or pour down a drain unless you are told to do so. Check with your pharmacist if you have questions about the best way to throw out drugs. There may be drug take-back programs in your area.
- Some drugs may have another patient information leaflet. If you have any questions about this drug, please talk with your doctor, nurse, pharmacist, or other health care provider.
- This drug comes with an extra patient fact sheet called a Medication Guide. Read it with care. Read it again each time this drug is refilled. If you have any questions about this drug, please talk with the doctor, pharmacist, or

other health care provider.

- If you think there has been an overdose, call your poison control center or get medical care right away. Be ready to tell or show what was taken, how much, and when it happened.

Additional Information

The CDC has given a link to the FDA approved Medication Guide in place of the Vaccine Information Statement (VIS).

https://www.fda.gov/media/75800/download

Consumer Information Use and Disclaimer

This generalized information is a limited summary of diagnosis, treatment, and/or medication information. It is not meant to be comprehensive and should be used as a tool to help the user understand and/or assess potential diagnostic and treatment options. It does NOT include all information about conditions, treatments, medications, side effects, or risks that may apply to a specific patient. It is not intended to be medical advice or a substitute for the medical advice, diagnosis, or treatment of a health care provider based on the health care provider's examination and assessment of a patient's specific and unique circumstances. Patients must speak with a health care provider for complete information about their health, medical questions, and treatment options, including any

risks or benefits regarding use of medications. This information does not endorse any treatments or medications as safe, effective, or approved for treating a specific patient. UpToDate, Inc. and its affiliates disclaim any warranty or liability relating to this information or the use thereof. The use of this information is governed by the Terms of Use, available at https://www.wolterskluwer.com/en/know/clinical-effectiveness-terms.

Last Reviewed Date

2025-04-07

Copyright

© 2026 UpToDate, Inc. and its affiliates and/or licensors. All rights reserved.

If you have questions or concerns, contact your healthcare provider. A member of your care team will answer Monday through Friday from 9 a.m. to 5 p.m. Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call. If you're not sure how to reach your healthcare provider, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.

Smallpox and Mpox Vaccine (Live - Last updated on December 12, 2022
All rights owned and reserved by Memorial Sloan Kettering Cancer Center