PATIENT & CAREGIVER EDUCATION

Epinephrine (Systemic

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

Adrenalin; Adrenalin-NaCl; Auvi-Q; Epinephrine Professional; EPINEPHrinesnap; EpinephrineSnap-EMS; Epinephrinesnap-v; EpiPen 2-Pak; EpiPen Jr 2-Pak; EPIsnap [DSC]; Neffy; Symjepi [DSC]

Brand Names: Canada

Adrenalin; Allerject [DSC]; Anapen Junior [DSC]; Anapen [DSC]; Emerade [DSC]; EpiPen; EpiPen Jr; Neffy

What is this drug used for?

- It is used to treat an allergic reaction.
- It is used to treat low blood pressure.
- It is used during eye surgery.
- It is used when the heart is not beating.
- It may be given to your child for other reasons. Talk with

the doctor.

What do I need to tell the doctor BEFORE my child takes this drug?

- If your child is allergic to this drug; any part of this drug; or any other drugs, foods, or substances. Tell the doctor about the allergy and what signs your child had.

This drug may interact with other drugs or health problems.

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

What are some things I need to know or do while my child takes this drug?

All products:

- Tell all of your child's health care providers that your child is taking this drug. This includes your child's doctors, nurses, pharmacists, and dentists.
- If your child is allergic to sulfites, talk with your child's doctor. Some products have sulfites in them.
- If your child has high blood sugar (diabetes), you will

need to watch your child's blood sugar closely.

If your child is pregnant or breast-feeding a baby:

- Talk with the doctor if your child is pregnant, becomes pregnant, or is breast-feeding a baby. You will need to talk about the benefits and risks to your child and the baby.

All injection products:

- Do not give into the fingers, hands, or feet. Doing so may lead to lower blood flow in these areas. If this drug is given on accident, get medical help right away.

Products used in the eye:

- Bright lights may bother your child. Have your child wear sunglasses.

Nose spray:

- Talk with the doctor if your child has nasal polyps or if your child has ever had a broken nose, nose injury, or nose surgery. This drug may not work as well.

What are some side effects that I need to call my child's 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 child's doctor or get medical help right away if your child has any of the following signs or symptoms that may be related to a very bad side effect:

All products:

- 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.
- Signs of high blood pressure like very bad headache or dizziness, passing out, or change in eyesight.
- Chest pain or pressure.
- A fast heartbeat.
- Shortness of breath.
- Weakness on 1 side of the body, trouble speaking or thinking, change in balance, drooping on one side of the face, or blurred eyesight.
- Severe abnormal heartbeat has happened with this drug. Sometimes this has been deadly. This may be more likely if your child already has heart problems or if your child takes certain drugs. Tell the doctor right away if your child has an abnormal heartbeat.

All injection products:

- Signs of low potassium levels like muscle pain or weakness, muscle cramps, or a heartbeat that does not feel normal.
- Not able to pass urine or change in how much urine is passed.
- A burning, numbness, or tingling feeling that is not normal.

Injection (for allergic reactions):

- Rarely, infections have happened where this drug was given. Sometimes, these infections can be very bad. Call the doctor right away if your child has signs of an infection like redness that does not go away, warmth, swelling, or tenderness.

Injection (if given in the vein):

- This drug may cause tissue damage if the drug leaks from the vein. Tell your child's nurse if your child has any redness, burning, pain, swelling, blisters, skin sores, or leaking of fluid where the drug is going into your child's body.

Nose spray:

- Feeling confused.
- Memory problems or loss.

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 child's doctor or get medical help if any of these side effects or any other side effects bother your child or do not go away:

All products:

- Feeling anxious, nervous, excitable, shaky, or restless.
- Upset stomach or throwing up.
- Sweating a lot.
- Pale skin.
- Headache.

Injection:

- Feeling dizzy, tired, or weak.
- Goosebumps.

Nose spray:

- Nose or throat irritation.
- Nosebleed.
- Tingling.
- Feeling jittery.
- Runny or stuffy nose.
- Dry nose or throat.
- Sneezing.
- Feeling dizzy, sleepy, tired, or weak.
- Stomach pain.
- Numbness in the mouth.
- Pain in gums of teeth.

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

You may report side effects to your national health agency.

How is this drug best given?

Give this drug as ordered by your child's doctor. Read all information given to you. Follow all instructions closely.

Injection (for allergic reactions):

- It is given as a shot into a muscle or into the fatty part of the skin.
- This drug must not be given into a vein.
- Be sure you know how to use before an emergency happens. Read the package insert and instructions for use that come with this drug. If you have any questions about how to use this drug, talk with the doctor or pharmacist.
- Keep this drug with you and your child at all times. Your child may want to keep extra ones at work, school, and home.
- Someone else may have to give this drug. Be sure others know where this drug is stored and how to give it if needed.
- Never put your fingers or hand over the tip.
- Check the device before you need to use it to make sure the safety release is in place and that the device can be removed from the case. Do not take off the safety release until ready to use.

- Pull off safety release. Throw away the safety release right after using this drug. There may be a risk of choking if the safety release is accidentally swallowed by a child or pet.
- Jab straight into the outer thigh as you have been told. This drug may be given through clothes if needed. Inject and hold for as long as you were told.
- Do not give into the buttocks.
- If giving this drug to your child, hold the leg still to prevent injury. Try to limit how much your child moves before and during an injection.
- Get medical help right away after using this drug.
- Put back in the storage case.
- Take it with you to the hospital.
- Each device has only 1 dose and cannot be reused. If another dose is needed, you will need to use a new device.
- If the allergic reaction does not get better or signs get worse after using this drug, you may need to use a second dose as the doctor has told you. Be sure you know how long to wait between doses. It is best to keep 2 devices with your child at all times. If you have questions, talk with the doctor.

- Do not use this drug if the solution changes color, is cloudy, or has particles. Get a new one.
- If this drug expires, get a refill before a dose is needed.
- If the device has been activated by accident, do not use it for an emergency. Replace the device with a new one.

For other reasons:

- Your child's doctor will give this drug.

Nose spray:

- For the nose only.
- Be sure you know how to use before an emergency happens. Read the package insert and instructions for use that come with this drug. If you have any questions about how to use this drug, talk with the doctor or pharmacist.
- Keep this drug with you and your child at all times. Your child may want to keep extra ones at work, school, and home.
- Someone else may have to give this drug. Be sure others know where this drug is stored and how to give it if needed.
- Do not take this drug out of the container until you are ready to use it. Do not prime or test this drug before

using it.

- Each device has only 1 dose and cannot be reused. If another dose is needed, you will need to use a new device.
- Spray up the nose only. Do not spray onto the wall joining the two nostrils or the outside of the nose.
- If the allergic reaction does not get better or signs get worse after using this drug, you may give a second dose starting 5 minutes after the first dose if the doctor told you to do so. If you need to give 2 doses, spray the second dose in the same nostril as the first dose. It is best to keep 2 devices with your child at all times. If you have questions, talk with the doctor.
- Be sure your child does not sniff through the nose while spraying this drug or right after use. If your child does sniff by accident and symptoms do not get better or get worse, give a second dose in the same nostril starting 5 minutes after the first dose.
- Get medical help right away after using this drug.
- If this drug expires, get a refill before a dose is needed.
- Do not freeze this drug on purpose. This drug may be used if it has been frozen and thawed. If an emergency happens and this drug is frozen, do not wait for it to thaw. Get medical help right away.

What do I do if my child misses a dose?

- Get medical help right away.

How do I store and/or throw out this drug?
Injection (if given in the vein):

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

All other injection products:

- Store at room temperature. Do not refrigerate or freeze.
- Protect from heat, cold, and light.

Injection (for allergic reactions):

- Store in the case you were given.

Nose spray:

- Store at room temperature. Do not freeze.
- Protect from heat.
- Store this drug in the blister pack until ready to use. It may also be stored in the carry case that comes with this drug.

All products:

- 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.

General drug facts

- If your child's symptoms or health problems do not get better or if they become worse, call your child's doctor.
- Do not share your child's drug with others and do not give anyone else's drug to your child.
- Some drugs may have another patient information leaflet. If you have any questions about this drug, please talk with your child's doctor, nurse, 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.

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

2026-04-17

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.

Epinephrine (Systemic - Last updated on December 12, 2022
All rights owned and reserved by Memorial Sloan Kettering Cancer Center

Memorial Sloan Kettering Cancer Center