

What is midazolam?

Midazolam is an emergency medicine (also called a rescue medicine) used to stop seizures.

- It can be given into the nose (intranasal). The brand name is Versed.
- It is also available as an inhaled medicine called Nayzilam. This is only for children 12 years and older.

Why is intranasal midazolam used?

Intranasal midazolam:

- Is a fast way to give medicine to a child who cannot swallow. This is because it gets absorbed through the small blood vessels of the nose.
- Works faster than oral medicine (to swallow).
- Is more reliable than rectal medicine (given in the rectum, the body opening where stool comes out).

When does my child need it?

Use the medicine only as advised by your child's doctor. Your child may need it for:

- Active seizures lasting 5 minutes or longer.
- Seizure clusters (having 3 or more seizures in 1 hour).

It should NOT be used as a maintenance medicine to prevent seizures.

What dose of intranasal midazolam does my child need?

- The doctor will prescribe the dose that is right for your child. Follow the doctor's directions carefully.
- Your child's dose is based on their age and weight.
- You will prepare the dose when you need to treat your child.
- Sometimes 1 dose is not enough. Your child's doctor may tell you to give a second dose of intranasal midazolam 5 to 10 minutes after the first dose. **Only do this if your child's doctor tells you to.**
- You will use a MAD nasal tip if the medicine comes in a vial (small glass bottle). MAD stands for mucosal atomizer device. It allows you to spray the medicine into the nose.

How do I prepare and give the dose if it comes in a vial?

Your child's doctor, nurse or pharmacist can teach you how to prepare and give the medicine. See **page 2** for step-by-step pictures of how to give intranasal midazolam if it comes in a vial.

In case of an urgent concern or emergency, call 911 or go to the nearest emergency department right away.

Intranasal midazolam, continued

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Gather your supplies:

- Alcohol swabs
- 3 mL (milliliter) syringe
- A needle
- Bottle of midazolam
- MAD nasal tip

2



- Remove cap from the bottle
- Clean top of bottle with alcohol swab
- Let it dry

3



- Place needle on syringe
- Remove cap from needle

4



- Pull air into syringe
- Put needle into top of medicine bottle
- Push air into medicine bottle

5



- Turn bottle upside down.
- Pull back slowly on plunger
- Fill syringe with amount of medicine needed

6



- Remove syringe
- Carefully place cap on needle
- Remove needle from syringe

7



Attach MAD nasal tip to syringe

8



Hold the syringe between your first 2 fingers.
Rest your thumb on the plunger end of the syringe

9



- Place MAD nasal tip in 1 nostril
- Press plunger. Only give **half** the amount of medicine in the syringe

10



- Place MAD nasal tip in the other nostril
- Press plunger. Give the other half of medicine in the syringe

11



- Take note of the time
- Keep watching your child

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Intranasal midazolam, continued

Where do I get the medicine and MAD nasal tip?

Your child's doctor will give you a prescription for midazolam and a MAD nasal tip. Talk with the nurse or doctor about what stores have these supplies.

How do I care for the MAD nasal tip and supplies?

When your child is OK, clean the MAD nasal tip so you can reuse it. Clean it with hot, soapy water. Rinse it well. Let it dry before putting it away.

Put used medicine bottles, needles and syringes into an FDA-cleared sharps container.

- If you cannot find one, use an empty household container such as a laundry detergent container that:
 - Is made of heavy-duty plastic.
 - Stays upright.
 - Has a tight-fitting lid that cannot be punctured (needles or glass cannot break or put holes in it).
 - Does not leak.
- Close the lid. Then, tape it shut. Label the container “Do Not Recycle” and place it in the trash.
- You may also visit [fda.gov/safesharpsdisposal](https://www.fda.gov/safesharpsdisposal) for more details on safe sharps disposal.

How do I prepare and give the dose if it comes as a nasal spray (Nayzilam)?

There is 1 dose of midazolam nasal spray in each package. Do not open the package until you are ready to use it.

- Do not squirt (prime) the medicine before giving it to your child. If you do, there will not be any medicine left to give your child.
- Give all of the medicine in 1 package for the full dose.

Your child's doctor, nurse or pharmacist can teach you how to prepare and give the medicine. Some guidelines are listed below.

1. Remove the medicine from the package right before giving it.
2. Hold the medicine with your:
 - Thumb on the bottom of the plunger.
 - First and middle fingers on either side of the nozzle.
3. Put the tip of the nozzle into 1 nostril until the finger holding the medicine is against the bottom of your child's nose.



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Intranasal midazolam, continued

4. Firmly push the plunger with your thumb. Then, remove the nozzle from the nostril.
5. Keep or turn your child on their side. Watch them closely and help them as needed.
6. Throw away the medicine. You gave the full dose.
7. Write down what time you gave the medicine.
8. A second dose may be needed. If so:
 - Wait at least 4 hours to give it.
 - Repeat steps 1 to 7 with a new medicine package.



When should I call the doctor?

Call your child's doctor if you have any questions or concerns about how your child looks or feels.

When should I call 911?

Call 911 right away if:

- Your child has any breathing problems that need to be taken care of right away.
- Your child has chest retractions (skin pulling in around the ribs and chest when breathing).
- Your child has a blue or dark purple color to the nails, lips or gums.
- You have to give a second dose of intranasal midazolam or if you need to give diazepam rectal gel (Diastat).

What are some possible side effects?

Your child may have 1 or more of these:

- Feel sleepy or light-headed
- Have a small amount of burning or irritation in the nose
- May cough, sneeze or have a bitter taste in the mouth. This comes from giving the medicine into the nose.

When should I avoid using intranasal midazolam?

Do not use intranasal midazolam if your child:

- Has a bloody or stuffy nose. A bloody or stuffy nose can prevent the medicine from absorbing well.
- Has a nose injury that causes a blockage.

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Intranasal midazolam, continued

What medicine safety tips should I know?

- Always read the label before giving medicine to your child.
- Keep all medicines in their labeled container where your child cannot get to them. If possible, store medicines in a locked cabinet.
- Return all medicines to the pharmacy to dispose of after their expiration date on the container.
- Tell the doctor, dentist and emergency department (ED) about any medicines your child is taking. Take the medicines with you.
- Call the Georgia Poison Control Center at 800-222-1222 or call 911 **right away** if your child takes too much medicine or has a bad reaction to medicine.

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This teaching sheet contains general information only. Talk with your child's doctor or a member of your child's healthcare team about specific care of your child.

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