



When Your Child Needs to Take Enoxaparin

Your guide to care for your child



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Lesson 1: The circulatory system and blood clots

In this lesson, you'll learn

- What makes up the circulatory system
- The types of blood cells
- Types of blood clots
- How to lower risk of getting blood clots

What's the circulatory system?

The heart and blood vessels make up the circulatory system. Blood vessels run all over the body, and they carry blood.

There are 2 types of blood vessels: arteries and veins.

- **Arteries** run from the heart to the rest of the body. The blood they carry is full of oxygen and nutrients.
- **Veins** run from the body back to the heart. They carry blood back to the heart after the body uses the oxygen and other nutrients.

What is blood?

Blood is a fluid that is made up of red blood cells, white blood cells, and platelets.

Red blood cells

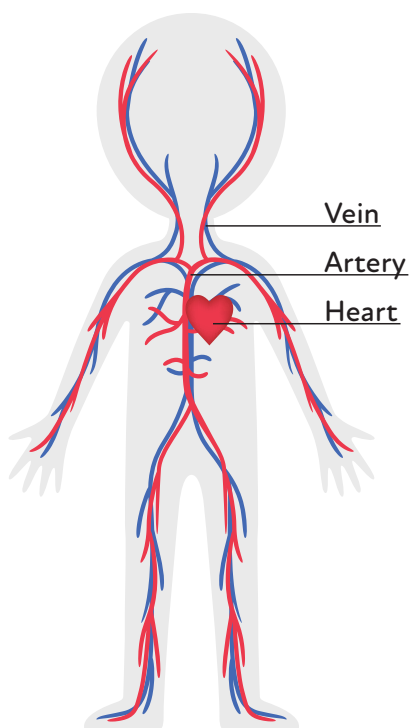
Red blood cells carry oxygen. They pick it up from the lungs and deliver it to the rest of the body. They also carry carbon dioxide back to the lungs to be exhaled.

White blood cells

White blood cells help keep us healthy. They're part of our body's immune system. When there are germs or viruses in the body, the white blood cells attack them.

Platelets

Platelets help stop bleeding by making blood clots. They work inside the body when a blood vessel breaks. And they work on the outside when the skin is cut.



What is a blood clot?

A blood clot is how the body stops bleeding. Platelets gather together where there's bleeding to plug the hole. Then a protein (clotting factors) joins the platelets. Together they turn blood from liquid to gel-like clumps that will be strong enough to stop the bleeding.

If the bleeding is on the skin, the blood clot will turn into a scab.

Sometimes blood clots can form inside blood vessels without injury and cause problems.

Areas inside the body where blood clots cause problems

If your child has signs for any of these blood clots, take them to the closest ER right away, and then call your child's care team.

- **Deep Veins (deep vein thrombosis):** Signs for this type of blood clot are:
 - swelling
 - pain or tender to touch
 - redness.
- **Lungs (pulmonary embolism):** Signs for this type of blood clot are:
 - hard time breathing
 - wheezing
 - changes to their skin color.
- **Brain:** Signs for this type of blood clot are:
 - lack of awareness
 - weak on 1 side of body
 - drooping on 1 side of face
 - slurred speech.
- **Heart:** Signs for this type of blood clot are:
 - chest pain
 - hard time breathing
 - numbness in left arm.

What can help prevent these kinds of blood clots?

Medicine

Anticoagulant medicine (blood thinner) can help make it harder for blood clots to form or get bigger.

Medical care team

Make sure all your child's care teams know they're at risk for blood clots. This is very important if they need surgery, they break their leg, or need to be on best rest.

Lifestyle

- Regular exercise
- Healthy diet
- Keep a healthy weight
- Don't smoke
- Go to all clinic visits and do all lab work

Other ways

- Don't sit for a long time (get up and walk every 1 to 2 hours).
- Keep legs raised up when sitting or lying down.
- Don't cross legs or ankles when sitting.

Lesson 2: Enoxaparin

In this lesson, you'll learn

- What enoxaparin does
- Side effects to watch for
- How to give it to your child

What is enoxaparin?

It's an anticoagulant medicine that's often called a blood thinner. It doesn't actually thin the blood. It makes it harder for blood to clot.

How will they take it?

This medicine is given as a shot. In the next lesson, you'll learn how to give a shot.

How much will they take?

It will depend on why they need to take it and how much they weigh. We'll do regular lab tests to make sure they take the right amount. We'll change how much they take (dose) as needed.

When will they need to take it?

Your child's care team will let you know your child's medicine schedule. They'll likely take it 2 times a day, 12 hours a part.

Make sure they don't miss a dose

It's important they always take their medicine as told. They should never stop taking it unless their care team tells you to stop.

You should request a refill at least 7 days before you run out of medicine. This will help make sure you never run out of medicine.

What are the side effects?

- Because the medicine makes it harder for blood to clot, it will take longer for cuts to stop bleeding. If your child gets a cut, put pressure on it for at least 10 minutes. You may need to put pressure on it longer.
- It will cause small, raised purple lumps under the skin. If the lumps turn black or the skin flakes off, call your child's care team.
- Other side effects are nosebleeds, unusual bleeding or bruising, weakness, headaches, and pain. Call your child's care team if they have any of these side effects.

Are there things they can't do on this medicine?

Your child should not do high-risk activities

- They should not play contact sports or do other activities that cause bruises, cuts, or injury.
- They should always wear a helmet when they ride a bike.

They should not take some medicines

- Do not give your child naproxen (Aleve), ibuprofen (Advil or Motrin), or aspirin. These medicines can cause problems.
- Talk to your child's care team before they take any new medicine.

Lesson 3: How to give your child a shot

In this lesson, you'll learn

- What supplies you need
- Areas of the body to give shots
- How to use a pre-filled syringe or fill a syringe yourself
- How to insert a needle into your child's skin
- How to throw away needles

How do I give a shot?

Get your supplies

- Cleaning supplies and clean towel
- New syringe and medicine vial or pre-filled syringe
- Alcohol wipes or swabs
- Gauze or cotton balls
- Bandage (if needed)
- Sharps container for used syringes (see lesson 5 for more details.)

Clean your workspace

- Use cleaning supplies to clean the workspace. Put a new towel down once it's dry.
- Wash your hands with soap and water for at least 30 seconds. Or sanitize your hands with alcohol-based gel or foam.

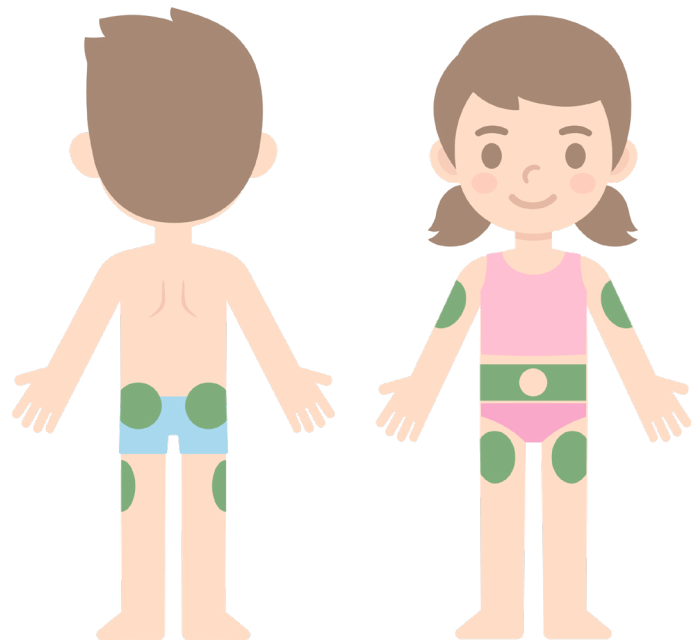
Choose where to give shot

You can choose the:

- backside of the upper arms
- upper part of the butt
- outer thighs
- belly, but make sure it's at least 2 inches from the belly button.

Do not use the same place (injection site) 2 times in a row. Pick a site at least 2 inches from the last shot. Don't use a site that is red, swollen, or bruised.

It's helpful to keep track of what site you used on what day so you don't repeat sites.



Choose injection site from areas in green

Clean site

- Use an alcohol wipe to clean the injection site. Clean an area of about 2 inches around the site.
- Let the skin dry. Do not blow on it.

If you use a pre-filled syringe, use these steps. If you fill the syringe yourself, use steps on page 7.

Give the shot using the pre-filled syringe

- Take the cap off the syringe. Put the cap in the sharps container.
- Don't let the needle touch anything.
- With the hand you write with, hold the syringe like a pen.
- With your other hand, put your thumb and forefinger on either side of the injection site. Pinch and lift an inch of skin.
- Put the full length of the needle into the pinched skin at a 45 to 90 degree angle.
- Slowly press the syringe plunger with your thumb until all the medicine is gone.
- Let go of the pinched skin.
- Take the needle out of the skin.
- Push down on the plunger to put the safety shield in place.
- Put the syringe in the sharps container.
- Use gauze or a cotton ball to put pressure on the site for 5 minutes. Do not rub the site. Put bandage on it, if needed.



Hold the syringe like you hold a pen. Then put the needle in at a 45 to 90 degree angle. This is what a 90 degree angle looks like.

If you fill the syringe yourself, use these steps. If you use a pre-filled syringe, use steps on page 6.

Fill the syringe

- Check the label on the medicine vial. Make sure you have the right medicine and that it has not expired. This medicine expires 28 days after it was opened.
- Open the vial. Clean it with a new alcohol wipe.
- Open syringe package.
 - Find the line on the syringe that matches your child's dose.
 - There's a plunger on the end of the syringe without the needle. Pull it out until the plunger lines up with that line.
 - Insert the needle into the top of the vial at a 90 degree angle.
 - Push down on the plunger to push air into the vial.
- With the needle inside the vial, turn it all upside. Pull the plunger out until it lines with that same line. This will draw out the right amount of medicine (dose).
- Gently tap on the side of the syringe to get rid of any air bubbles.
- Once you have the right dose and all air bubbles are out, pull the needle out of the vial. Don't let the needle touch anything.

Give shot with syringe you filled

- With your empty hand, put your thumb and forefinger on either side of the injection site. Pinch and lift an inch of skin.
- Put the full length of the needle into the pinched skin at a 45 degree angle.
- Slowly press the syringe plunger with your thumb until all the medicine is gone.
- Let go of the pinched skin.
- Take the needle out of the skin.
- Put the syringe in the sharps container.
- Use gauze or a cotton ball to put pressure on the site for 5 minutes. Do not rub the site. Put bandage on it, if needed.



*Put needle into skin at a 45 to 90 degree angle.
This is what a 45 degree angle looks like.*

Lesson 4: Make shots easier for your child

In this lesson, you'll learn

- What can make shots less painful
- What can help make shots less scary.

Pay attention to the needle

The end of the needle is cut at an angle. Turn the needle so the angle faces up, away from the skin. This will let the sharpest point of the needle to go into the skin first. That will help make it be less painful.



Look closely at the needle. Put the sharpest end into the skin first to help make it less painful.

Talk to your child first

- Let them know you need to give them a shot to give them the medicine they need.
- Be honest with them and let them know it may hurt for a short time.
- Tell them it's OK if they cry.
- Let them decide if they want to watch or look away.

Use play to teach them

You can play doctor with them. Use syringe without a needle and a stuff animal or doll. Pretend to give the toy a shot.

Give them something to do while you give them a shot

Things they may want to do:

- watch a show
- read a book
- hold or squeeze a toy
- listen to music
- be held by another caregiver.

Older children may also want to help. They can get the supplies ready, clean the injection site, and put on a bandage after the shot.

Lesson 5: How to throw away needles

In this lesson, you'll learn

- What you can use to store used syringes
- How to throw away used syringes

What do I do with syringes after I use them?

Always use a sharps container to store used syringes. The used syringes need to be stored safely so they don't cut or harm anyone by accident.

Types of containers to use

You can buy a specially made sharps container at a pharmacy or medical supply store.

Or you can also use an empty household container that:

- has a lid
- stands up on its own
- does not leak
- is made of heavy-duty plastic. The plastic needs to be strong enough so the needle cannot go through it.

Empty laundry detergent bottles are usually a good option.

Types of containers you cannot use

You should not use any container that can break or the needle could go through it.

Do not use milk containers, water bottles, soda cans, or anything made of glass.

What do I do when the sharps container is full?

It's important you throw away the used syringes in the right way. Talk to your pharmacy or visit your county's health department website to find the options for your area.

You should never

- Put used syringes in the regular trash or recycle.
- Flush used syringes down the toilet.
- Keep syringes (new or used) where children can get them.

Lesson 6: Your child's shot and lab work schedule

In this lesson, you'll learn

- Why your child needs regular lab work done
- When to schedule lab work
- How to shift your child's shot schedule

Why does my child need lab work?

This is how your child's care team will know if the medicine is working the way it should. And how they'll decide if they need to change your child's dose.

To make sure the lab tests give them the best information, the timing of the lab work is important.

For most children, they should get their lab work done 4 to 5 hours after their last shot.

Use chart for timing examples.

If you give them their shot at:	They need their lab work done between:
5:00 a.m.	9:00 and 10:00 a.m.
6:00 a.m.	10:00 and 11:00 a.m.
7:00 a.m.	11:00 a.m. and 12:00 p.m.
8:00 a.m.	12:00 and 1:00 p.m.

What if I need to change what time I give them their shots?

If you need to change their shot schedule, you'll need to do this slowly. This will make sure your child always has the right amount of medicine in their blood. You should not shift more than 1 hour per day.

For example:

Your child's current shot schedule is 7:00 a.m. and 7:00 p.m., and you need to change to 10:00 a.m. and 10:00 p.m. It would take you 3 days to shift to the new schedule.

- Day 1: Give shots at 8:00 a.m. and 8:00 p.m.
- Day 2: Give shots at 9:00 a.m. and 9:00 p.m.
- Day 3: Give shots at 10:00 a.m. and 10:00 p.m.

Lesson 7: When to get help

Pediatric Thrombosis Clinic

- Phone: (615) 936-1762
- Regular clinic hours:
Monday to Friday, 8:00 a.m. to 4:30 p.m.

If you call outside of regular clinic hours, leave a message. The clinic team will call you back.

Let the clinic know if your child has any of these issues

Issues with medicine

- Misses a dose
- Shows new signs after they start a new medicine prescribed by the clinic team
- Has side effects from enoxaparin
 - nosebleeds
 - unusual bleeding or bruising
 - weakness
 - very bad headaches
 - pain, swelling, or discomfort

Injuries and bleeding

- They fall and bump their head
- Their gums bleed after they brush their teeth
- They have a cut that won't stop bleeding when you put pressure on it
- They have heavier menstrual bleeding than normal (fill more than 1 pad in 1 hour).

Other health issues

- They cough or throw up bright red blood or brown material that looks like coffee grounds.
- Their poop is red, black, or tarry.
- Their pee is bloody, dark brown, or cloudy.
- Their belly is swollen, tender, or painful.
- They have bad back pain without injury.
- They're sick to their stomach, throw up, or they have diarrhea for more than 24 hours.
- They're tired and they have a fever, chills, sore throat, itching rash, or mouth sores.
- They need surgery or dental work. Call the clinic at least 2 weeks before their schedule surgery or procedure.

Get help right away if your child has signs of a blood clot

Take them to the closest ER. And call your child's care team right away.

- Blood clot in deep veins: swelling, pain or tender to touch, and redness.
- Blood clot in lungs: hard time breathing, wheezing, and changes to their skin color.
- Blood clot in brain: lack of awareness, weakness on 1 side of body, drooping on 1 side of face, and slurred speech.
- Blood clot in heart: chest pain, hard time breathing, and numbness in left arm.

Keep your child safe

Things to do

- Make sure your child goes to all their clinic visits and gets all their lab work done.
- Give your child their medicine on time every day.
- Tell all your child's care teams that they take enoxaparin, and they're at risk for blood clots.
- Use a different injection site each time.
- Store new syringes where children cannot get them.
- Put all used syringes and caps in a sharps container. Talk to your pharmacy to find out how to throw them away in your area.
- Take your child to the closest ER right away if they show signs of a blood clot in their deep veins, lungs, heart, or brain.
- Let the thrombosis clinic know if your child is scheduled for a surgery or procedure.
- They should get all their regular vaccines. Talk to the thrombosis clinic first. They'll let you know if you need to make changes to their medicine schedule on this day.

Things not to do

- Do not let your child play contact sports or do other activities that cause bruises, cuts, or injury.
- Do not give your child naproxen (Aleve), ibuprofen (Advil or Motrin), or aspirin.
- Do not blow on injection site to help it dry after you clean it.
- Do not hold the syringe straight up in the air. You may stick yourself.
- Do not rub or massage injection site.
- Do not reuse syringes.
- Do not put the cap back on the syringe after you use it.
- Do not throw used syringes in the regular trash or recycling.
- Do not shift your child's medicine schedule more than 1 hour at a time.

Monroe Carell: (615) 936-1000
Pediatric Thrombosis Clinic: (615) 936-1762

