

*Ask your
physician, nurse
or pharmacist
if you have any
questions about
LMWH.*

Low Molecular Weight Heparins: Dalteparin (Fragmin®), Enoxaparin (Lovenox®)

A low molecular weight heparin (LMWH) is a special form of heparin, an anticoagulant (“blood thinner”) medicine. This medication helps prevent blood clots from forming. LMWH can also be used to treat existing blood clots in the veins or lungs. Clots can block the blood flow either to or from vital organs and cause serious medical problems. **It is critical to take this medicine as directed.**

Before you go home, we will teach you:

- How to inject the LMWH.
- How to dispose of the used syringes.
- What side effects to report to your physician.
- How to prevent bleeding problems.

While you are in the hospital, consider watching the LMWH patient education video on your TV. Your nurse can help you access the video.

Taking LMWH

LMWH is given as a shot (or injection). You or a family member can do this. Your nurse will show you how. Your physician will prescribe:

- How many doses you will need to take and when to stop.
- How often you will need to take LMWH. This will be either once a day (every 24 hours) or 2 times a day (every 12 hours).

Take this medicine exactly as directed by your physician. It is best to take your dose at the same time each day. **Do not** stop taking this medication—even if you feel better—unless instructed by your physician.

If you forget to take a dose, take it as soon as you remember. However, if it is almost time for your next dose, skip it and just go back to taking it at your regular schedule. Call your physician for further instructions. **Never** take 2 doses close together to make up for missing one.

Supplies

- Alcohol wipes or cotton balls soaked with 70% rubbing alcohol.
- Pre-filled syringe of your medication.
- A metal or heavy plastic, puncture-proof container with a tight-fitting lid. “Sharps” containers may also be used. Use this to discard the used syringes. **Never put used needles or syringes directly into a garbage can.**

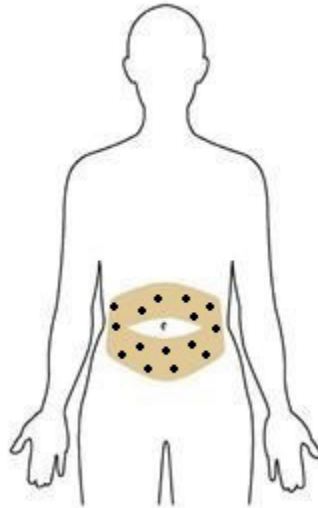
How to inject your medicine

Before starting, look closely at the syringe. The contents should be clear. **Do not use if you notice any leaks, discoloration or floating materials in the syringe.** Return any defective syringes to your pharmacy and ask for replacements.

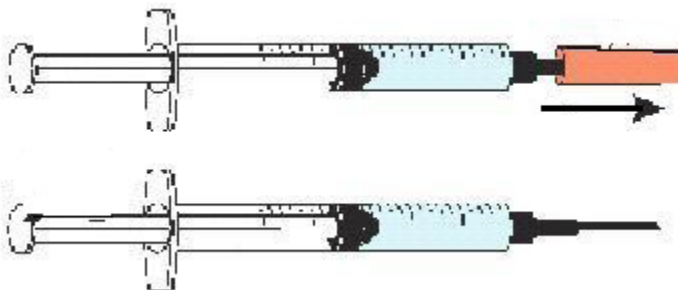
1. Wash your hands and the area of skin where you will inject the medicine.
2. Sit or lie down with your head up so you can see your stomach.
3. Choose a site to inject the medicine. The best sites are on your abdomen, away from your navel. If needed, the upper outer area of the thigh may also be used. In the figure below, the shaded area shows possible injection sites above and below the belly button.

Choose a different site for each dose. For example, if you use the right side one time, go to the left side next time. When you return to the right side, select a site at least a few inches away from the previous. Do not inject the medicine into a bruised area or scar.

Injection sites



4. Gently wipe the injection site with an alcohol wipe or cotton ball soaked with rubbing alcohol.
5. Pull the needle cap away from the syringe to remove as shown below. Do not push any air or medicine out of the syringe.



Removing needle cap

Syringe with needle
(cap removed)

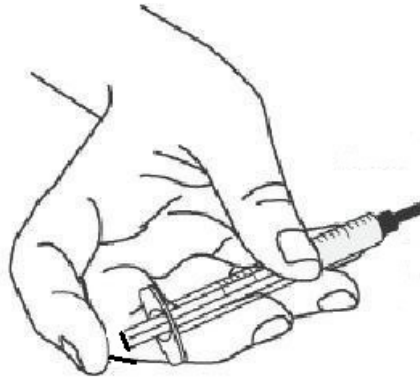
6. Gently squeeze the skin between your thumb and index finger as shown below.

Creating a skin fold



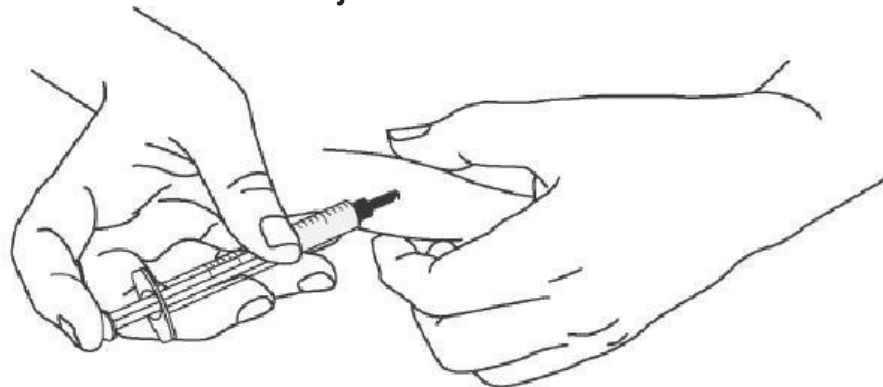
7. Carefully hold the syringe with the needle facing you. It may be easiest if the thumb and middle finger are placed on each side of the syringe. This leaves your index finger free to depress the plunger at the right time. This is shown below. (If someone else is giving this to you, they may need to change the finger placement.)

Finger placement for self-injection



8. Insert the needle at a 45- to 90-degree angle into the thickest part of the squeezed skin. **Be sure to insert the entire length of the needle.**

Injection



9. Keeping the skin pinched, slowly push the plunger all the way in.
10. After all the medicine has gone in, pull out the syringe and release your skin. Hold the needle away from you and anyone else.
11. **Do not put the cap back on the needle.** Use the needle safety device to retract the needle and prevent injury. Depending on the type of syringe, press the plunger rod or designated button to activate. Please note:
 - The safety device only works when the syringe has been emptied.
 - Activate the safety device only **after** removing the needle from your skin.
12. Discard the syringe and needle cap in the disposal container and secure the lid.

When all the doses have been used, **secure the lid** of the disposal container and discard.

- If you are using a metal or hard plastic household container, it can be put in the garbage can. **Never put these into the recycle bin.**
- If you are using a red biohazard-labeled sharps container, it **cannot** be put in the garbage can. For information about proper disposal of special sharps containers and syringes, go to the State of Illinois site: www2.illinois.gov/epa/Documents/iepa/waste-management/medication-disposal/sharps-fact-sheet.pdf.

If you do not live in Illinois, please check your state and local laws for proper disposal.

Special instructions

- Store this medicine at room temperature. Do not store it in the bathroom or refrigerator. Protect from heat, moisture and direct light. Keep it away from children and pets.
- Don't forget to rotate injection sites, using a different place for each shot.

Food and drug interactions

- Do not stop or start taking any new medicines without your physician's approval.
- **Herbal supplements.** Some supplements may interact with the LMWH to cause bleeding or blood clots. Examples include: feverfew, garlic, ginger, kava, clove oil, ginkgo and horse chestnut. Do not take these or others like them. Check with your physician or pharmacist before taking any herbal supplements to make sure it is safe to do so.
- **Some medications increase the risk of bleeding.** These include aspirin, non-steroidal anti-inflammatory drugs (NSAIDs) and many over-the-counter, non-prescription medicines (including those used to treat pain or cold/flu symptoms). Check with your physician or pharmacist before taking any non-prescription medicines to make sure it is safe to do so.
- **Alcohol** may increase the risk of bleeding. Check with your physician about drinking alcoholic beverages.

For your safety

Be careful to avoid injury when taking this medicine. An injury may increase the risk of bleeding.

- You may wish to use a soft toothbrush to avoid scratching your gums.
- Use an electric razor for shaving. Do not use razor blades.
- Avoid scratching your skin.
- Wear gloves while gardening.
- Be careful when you use sharp items, such as knives or power tools.
- Always protect the soles of your feet from injury. Never trim corns, calluses or nails with a sharp knife or razor blade.
- Avoid activities or contact sports that could easily lead to injury and bleeding, such as football.
- If you cut yourself, apply pressure to the area **for at least 5 minutes or until the bleeding has stopped**.
- Do not share this medication with anyone else.

Medical care

As long as you are taking this medication, **please remember to:**

- Inform your dentist, dental hygienist or any other healthcare provider that you are seeing that you are taking an anticoagulant.
- Inform the physician who prescribed this medicine if you:
 - Plan to have oral surgery or any teeth pulled.
 - Plan to have any surgical procedure, including an intra-uterine device (IUD) placement.
 - Plan to take an extended, out-of-town trip.
 - Are pregnant or plan to become pregnant.

When to call the physician

Any treatment can have side effects. Common side effects may include irritation at the injection site, diarrhea, nausea, fever or bruising. Even though serious side effects are unlikely, it is important to be aware of them. Please notify your physician right away if any of the following occur:

- **Signs of bleeding:** Prolonged bleeding from cuts or wounds; back pain; nosebleed; coughing up blood; blood in urine or stool; black stool (if not taking iron supplements); bleeding gums; unusual bruising or change in skin color; dizziness; faintness; stomach or intestinal upset; pain or swelling; continuing headaches; or unusually heavy menstrual bleeding. If you become pregnant, LMWH may increase the chance of bleeding in both you and your unborn baby.
- **Signs of clotting:** Difficulty breathing; chest pain; dizziness; shortness of breath; swelling in the legs or arms; pain when walking; or pain and warmth in the arms or legs.

- **Signs of an allergic reaction:** Rash; hives; itching; wheezing; chest or throat tightness; swelling of the mouth, face, lips, tongue or throat; trouble breathing or talking; or unusual hoarseness.

If you hit your head (such as a fall or car accident), go to the nearest Emergency Department immediately, even if you feel perfectly fine.

Please...

- Ask questions to make sure you know how to take this medicine and when to take it.
- Call your physician if you have any questions after leaving the hospital.

This information is not intended to describe all possible medication uses, side effects or precautions. Please contact your physician or pharmacist for more information.