

HEPARIN/LOW MOLECULAR WEIGHT HEPARINS

Brand names Calciparine, Monoparin, Multiparin; [LMWH] Clexane, Clivarine, Fragmin, Innohep, Zibor

Used in the following combined preparations None

GENERAL INFORMATION

Heparin is an anticoagulant drug used to prevent formation of, and aid in dispersion of, blood clots. Because the drug acts quickly, it is particularly useful in emergencies to prevent further clotting when a clot has already reached the lungs or the brain, for instance. People undergoing open heart surgery or kidney dialysis are also given heparin to prevent clotting. A low dose is sometimes given following surgery to prevent the development of deep vein thrombosis

(clots in the leg veins). Heparin is often given in conjunction with other slower acting anticoagulants, such as warfarin. It is also used to treat unstable angina.

The most serious adverse effect, as with all anticoagulants, is excessive bleeding, so the blood's clotting ability is watched very carefully. Bruising may occur around the injection site.

Several types of heparin known as low molecular weight heparins (LMWH) do not have to be administered in hospital.

QUICK REFERENCE

Drug group Anticoagulant drug (p.62)

Overdose danger rating High

Dependence rating Low

Prescription needed Yes

Available as generic Yes (heparin); No (LMWH)

INFORMATION FOR USERS

This drug is given only under medical supervision and is not for self-administration.

How taken/used



Injection, intravenous infusion.

Frequency and timing of doses

Every 8–12 hours, or continuous intravenous infusion once daily (LMWH).

Dosage range

Dosage is determined by the nature of the condition being treated or prevented.

Onset of effect

Within 15 minutes.

Duration of action

4–12 hours after treatment is stopped;
24 hours after end of treatment (LMWH).

Diet advice

None.

Storage

Keep in original container at room temperature out of the reach of children.

Missed dose

Notify your doctor.

Stopping the drug

Do not stop taking the drug without consulting your doctor. Stopping the drug may lead to clotting of blood.

OVERDOSE ACTION



Seek immediate medical advice in all cases. Take emergency action if bleeding, severe headache, or loss of consciousness occur.

See **Drug poisoning emergency guide (p.510)**.

SPECIAL PRECAUTIONS

Be sure to tell your doctor if:

- You have long-term liver or kidney problems.
- You have high blood pressure.
- You bleed easily or are currently bleeding.
- You have any allergies.
- You have peptic ulcers.
- You have diabetes.
- You have had a previous reaction to heparin.
- You have had a recent stroke, injury, or surgery.
- You are taking other medicines.



Pregnancy

Careful monitoring is necessary as it may cause the mother to bleed excessively if taken near delivery. Discuss with your doctor.



Breast-feeding

No evidence of risk.



Infants and children

Reduced dose necessary according to age and weight.



Over 60

No special problems, but the elderly may be more prone to bleeding.



Driving and hazardous work

Avoid risk of injury, since excessive bruising and bleeding may occur.



Alcohol

No special problems.

Surgery and general anaesthetics

Heparin may need to be stopped. Discuss this with your doctor or dentist before having any surgery.

POSSIBLE ADVERSE EFFECTS

As with all anticoagulants, bleeding is the most common adverse effect of heparin, and the risk of bleeding is increased in people

with impaired kidney function. The less common effects may occur during long-term treatment.

Symptom/effect	Frequency		Discuss with doctor		Stop taking drug now	Call doctor now
	Common	Rare	Only if severe	In all cases		
Bleeding/bruising	●			●		●
Hair loss		●		●		
Aching bones		●		●		
Breathing difficulties		●		●		●
Jaundice/vomiting blood		●		●		●
Rash		●		●	●	●

INTERACTIONS

Aspirin and other NSAIDs may increase the anticoagulant effect of heparin and the risk of bleeding in the intestines or joints. Do not take these drugs with heparin.

ACE inhibitors and potassium supplements taken with heparins may increase the risk of high blood potassium.

Clopidogrel, ticlopidine, and dipyridamole

The anticoagulant effect of heparin may be increased when it is taken with these drugs. The dosage of heparin may need to be adjusted accordingly.

PROLONGED USE

Osteoporosis and hair loss may occur very rarely with long-term use; tolerance to heparin may also develop.

Monitoring Periodic blood and liver function tests will be required.