

Lisinopril 1 mg/ml oral solution

Lisinopril

Read all of this leaflet carefully before you start taking this medicine because it contains important information for you.

- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor or pharmacist.
- This medicine has been prescribed for you only. Do not pass it on to others. It may harm them, even if their signs of illness are the same as yours.
- If you get any side effects, talk to your doctor or pharmacist. This includes any possible side effects not listed in this leaflet. See section 4.

What is in this leaflet

- 1. **What Lisinopril 1 mg/ml oral solution is and what it is used for**
- 2. **What you need to know before you take Lisinopril 1 mg/ml oral solution**
- 3. **How to take Lisinopril 1 mg/ml oral solution**
- 4. **Possible side effects**
- 5. **How to store Lisinopril 1 mg/ml oral solution**
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1. What Lisinopril 1 mg/ml oral solution is and what it is used for

Lisinopril 1 mg/ml oral solution contains a medicine called lisinopril. This belongs to a group of medicines called ACE inhibitors.

- Lisinopril can be used for the following conditions:
 - to treat high blood pressure (hypertension)
 - to treat heart failure
 - if you have recently had a heart attack (myocardial infarction)
 - to treat kidney problems caused by Type II diabetes in people with high blood pressure.
- Lisinopril works by making your blood vessels wider. This helps to lower your blood pressure. It also makes it easier for your heart to pump blood to all parts of your body.

2. What you need to know before you take Lisinopril 1 mg/ml oral solution

- Do not take Lisinopril 1 mg/ml oral solution if:
 - you are allergic (hypersensitive) to lisinopril or any of the other ingredients of Lisinopril 1 mg/ml oral solution listed in section 6.
 - you have ever had an allergic reaction to another ACE inhibitor medicine. The allergic reaction may have caused swelling of the hands, feet, ankles, face, lips, tongue or throat. It may also have made it difficult to swallow or breathe (angioedema)
 - a member of your family has had severe allergic reactions (angioedema) to an ACE inhibitor or you also have had severe allergic reactions (angioedema) without a known cause

- you have taken or are currently taking sacubitril/valsartan, a medicine used to treat a type of long-term (chronic) heart failure in adults, as the risk of angioedema (rapid swelling under the skin in an area such as the throat) is increased
- you are more than 3 months pregnant. It is also better to avoid Lisinopril in early pregnancy - see Pregnancy section
- you have diabetes or impaired kidney function and you are treated with blood pressure lowering medicine containing lithium.

Do not take Lisinopril 1 mg/ml oral solution if any of the above applies to you. If you are not sure, talk to your doctor or pharmacist before using this medicine.

If you develop a dry cough which is persistent for a long time after starting treatment with Lisinopril 1 mg/ml oral solution, talk to your doctor.

- Warnings and precautions**
 - Talk to your doctor or pharmacist before taking Lisinopril 1 mg/ml oral solution:
 - if you are taking any of the following medicines, the risk of angioedema (rapid swelling under the skin in areas such as the throat) is increased:
 - sirtinibs, everolimus and other medicines belonging to the class of mTOR inhibitors (used to avoid rejection of transplanted organs)
 - if you have a narrowing (stenosis) of the aorta (an artery in your heart) or a narrowing of the heart valves (mitral valves)
 - if you have a narrowing (stenosis) of the kidney artery
 - if you have an increase in the thickness of the heart muscle (known as hypertrophic cardiomyopathy)
 - if you have problems with your blood vessels (collagen vascular disease).
 - if you have low blood pressure. You may notice this as feeling dizzy or light-headed, especially when standing up.
 - if you have kidney problems or you are having dialysis
 - if you have liver problems
 - if you have diabetes
 - if you have recently had diarrhoea or vomiting (stomach sickness)
 - if your doctor has told you to control the amount of salt in your diet
 - if you have high levels of cholesterol and you are having a treatment called 'LDL apheresis'

You must tell your doctor if you think you are (or might become) pregnant. Your doctor will normally advise you to stop taking Lisinopril 1 mg/ml oral solution before you become pregnant or as soon as you know you are pregnant and will advise you to take another medicine instead of Lisinopril 1 mg/ml oral solution. Lisinopril 1 mg/ml oral solution is not recommended in early pregnancy, and must not be taken after pregnancy for more than 3 months pregnant, as it may cause serious harm to your baby if used at that stage (see Pregnancy section).

- if you are of black origin as Lisinopril 1 mg/ml oral solution may be less effective. You may also more readily get the side effect 'angioedema' (a severe allergic reaction)
- if you are taking any of the following medicines used to treat high blood pressure:
 - an angiotensin II receptor blocker (ARBs) (also known as sartans - for example valsartan, telmisartan, irbesartan), in particular if you have diabetes-related kidney problems
 - -aliskiren

If you are taking any of the following medicines, the risk of angioedema (rapid swelling under the skin in areas such as the throat) is increased:

- ACE-inhibitors, a medicine used to treat diarrhoea;
- Medicines used to prevent organ transplant rejection and for cancer (e.g. temsirolimus, sirolimus, everolimus).
- -valdigactin, a medicine used to treat diabetes.

Your doctor may check your kidney function, blood pressure, and the amount of electrolytes (e.g.

potassium) in your blood at regular intervals.

See also information under the heading "Do not take Lisinopril 1 mg/ml oral solution"

- If you are not sure if any of the above apply to you, talk to your doctor or pharmacist before taking Lisinopril 1 mg/ml oral solution.
- Treatment for allergies such as insect stings**
 - Tell your doctor if you are having or are going to have treatment to lower the effects of an allergy such as insect stings (desensitisation treatment). If you take Lisinopril 1 mg/ml oral solution while you are having this treatment, it may cause a severe allergic reaction.

Operations
 If you are going to have an operation (including dental surgery) tell the doctor or dentist that you are taking Lisinopril 1 mg/ml oral solution. This is because you can get low blood pressure (hypotension) if you are given certain local or general anaesthetics while you are taking Lisinopril 1 mg/ml oral solution.

Children and adolescents
 Lisinopril has been studied in children. For more information, talk to your doctor. Lisinopril is not recommended in children under 6 years of age or in any child with severe kidney problems.

3. How to take Lisinopril 1 mg/ml oral solution

Tell your doctor or pharmacist if you are taking, or have recently taken, or might take any other medicines. This includes medicines that you buy without a prescription. This is because Lisinopril 1 mg/ml oral solution can affect the way some medicines work and some medicines can have an effect on Lisinopril 1 mg/ml oral solution.

Your doctor may need to change your dose and/or to take other precautions:

- medicines which are most often used to avoid rejection of transplanted organs (sirolimus, everolimus and other medicines belonging to the class of mTOR inhibitors). See section "Warnings and precautions";
- other medicines to help lower your blood pressure
- medicines to break up blood clots (usually given in hospital)
 - beta-blocker medicines, such as atenolol and propranolol
 - nitrate medicines (for heart problems)
 - non-steroidal anti-inflammatory drugs (NSAIDs) used to treat pain and arthritis
- aspirin (acetylsalicylic acid), if you are taking more than 3 grams each day
- medicines for depression and for mental problems, including lithium
- potassium supplements (including salt substitutes), potassium-sparing diuretics and other medicines that can increase the amount of potassium in your blood (e.g. trimethoprim and co-trimoxazole for infections caused by bacteria, colistin, an immunosuppressant medicine used to prevent organ transplant rejection; and heparin, a medicine used to thin blood to prevent clots)
- insulin or medicines that you take by mouth for diabetes
- medicines used to treat asthma
- medicines to treat nose or sinus congestion or other cold remedies (including those you can buy in the pharmacy)
- medicines to suppress the body's immune response (immunosuppressants)
- allopurinol (for gout)
- procainamide (for heart beat problems)
- medicines that contain gold, such as sodium aurothiomalate, which may be given to you as an injection.

Pregnancy and breast-feeding

Pregnancy
 You must tell your doctor if you think you are (or might become) pregnant. Your doctor will normally advise you to stop taking Lisinopril 1 mg/ml oral solution before you become pregnant or as soon as you know you are pregnant and will advise you to take another medicine instead of Lisinopril 1 mg/ml oral solution. Lisinopril 1 mg/ml oral solution is not recommended in early pregnancy, and must not be taken after pregnancy for more than 3 months pregnant, as it may cause serious harm to your baby if used after the third month of pregnancy.

Breast-feeding
 Tell your doctor if you are breast-feeding or about to start breast-feeding. Lisinopril 1 mg/ml oral solution is not recommended for mothers who are breast-feeding, and your doctor may choose another treatment for you if you wish to breast-feed, especially if your baby is newborn, or was born prematurely.

Driving and using machines
 Some people feel dizzy or tired when taking this medicine. If this happens to you, do not drive or use any tools or machines. You must wait to see how your medicine affects you before trying these activities.

Lisinopril 1 mg/ml oral solution contains sodium and benzyl alcohol
 This medicine contains less than 1 mmol sodium (23 mg) per ml oral solution, that is to say essentially 'sodium-free'. This medicine contains 1.5 mg benzyl alcohol in each ml oral solution. Benzylate salt may increase jaundice (yellowing of the skin and eyes) in newborn babies up to 4 weeks old.

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3. How to take Lisinopril 1 mg/ml oral solution

Always take Lisinopril 1 mg/ml oral solution exactly as your doctor has told you. You should check with your doctor or pharmacist if you are not sure. Once you have started taking Lisinopril 1 mg/ml oral solution your doctor may take blood tests. Your doctor may then adjust your dose so you take the right amount of medicine for you. The carton contains a double-ended measuring spoon. One end of the spoon will give you 5 ml of the solution and the other will give you 2.5 ml. The spoon should be properly cleaned after use.

Taking your medicine
 Try to take your medicine at the same time each day. It does not matter if you take Lisinopril 1 mg/ml oral solution before or after food.

- Mixing with food or drinks has not been studied, and any mixing with food and drinks is therefore the responsibility of the health care professional or the user.
- Keeping taking this medicine for as long as your doctor tells you to, it is a long term treatment. It is important to keep taking Lisinopril 1 mg/ml oral solution every day.

Taking your first dose
 Take special care when you have your first dose of Lisinopril 1 mg/ml oral solution or if your blood pressure than later doses.

- This may make you feel dizzy or light-headed. If this happens, it may help to lie down. If you are concerned, please talk to your doctor as soon as possible.

Adults
 Your dose depends on your medical condition and whether you are taking any other medicines. Your doctor will tell you how much Lisinopril 1 mg/ml oral solution to take each day. Check with your doctor or pharmacist if you are unsure.

For high blood pressure
 The usual starting dose is 10 mg (10 ml) once a day. The usual long-term dose is 20 mg (20 ml) once a day.

For heart failure
 The usual starting dose is 2.5 mg (2.5 ml) once a day. The long-term dose is 5 to 35 mg (5 ml - 35 ml) once a day.

After a heart attack
 The usual starting dose is 5 mg (5 ml) within 24 hours of your attack and 5 mg (5 ml) one day later.

The usual long-term dose is 10 mg (10 ml) once a day.

For kidney problems caused by diabetes
 The usual dose is either 10 mg (10 ml) or 20 mg (20 ml) once a day.

If you are elderly, have kidney problems or are taking diuretic medicines your doctor may give you a lower dose than the usual dose.

Use in children and adolescents
 Lisinopril 1 mg/ml oral solution is not recommended for children under 6 years or in any children with severe kidney problems.

The doctor will work out the correct dose for your child. The dose depends on the child's body weight.

- For children who weigh between 20 kg and 50 kg, the usual starting dose is 2.5 mg (2.5 ml) once a day.
- For children who weigh more than 50 kg, the usual starting dose is 5 mg (5 ml) once a day.

If you take more Lisinopril 1 mg/ml oral solution than you should
 If you take more Lisinopril 1 mg/ml oral solution than you should, you might experience dizziness and/or palpitations.

1. Tell your doctor, pharmacist or nearest hospital casualty department immediately.
2. Take the bottle and any remaining solution with you so that people can see what you have taken.
3. Do this even if you feel fine.

If you forget to take Lisinopril 1 mg/ml oral solution
 If you forget to take a dose, take it as soon as you remember. However, if it is nearly time for the next dose, skip the missed dose.

■ Do not take a double dose to make up for a forgotten dose.

If you stop taking Lisinopril 1 mg/ml oral solution
 Do not stop taking your medicine, even if you are feeling well, unless your doctor tells you to.

If you have any further questions on the use of this medicine, ask your doctor or pharmacist.

4. Possible side effects

Like all medicines, this medicine can cause side effects, although not everybody gets them. If you experience any of the following reactions, stop taking Lisinopril 1 mg/ml oral solution and see your doctor immediately:

- severe allergic reactions (rare, affects 1 to 10 users in 10,000). The signs may include sudden onset of:
 - swelling of your face, lips, tongue or throat.
 - This may make it difficult to swallow.
 - severe or sudden swelling of your hands, feet and ankles
 - difficulty breathing
 - severe itching of the skin (with raised bumps)
- severe skin disorders, like a sudden, unexpected rash or burning, red or peeling skin (very rare, affects less than 1 user in 10,000)
- an infection with symptoms such as fever and serious deterioration of your general condition, or fever with local infection symptoms such as sore throat/pharyngitis or urinary problems (very rare, affects less than 1 user in 10,000).

Other possible side effects:
Common (affects 1 to 10 users in 100)

- headache
- feeling dizzy or light-headed, especially if you stand up quickly
- diarrhoea
- a dry cough that does not go away
- being sick (vomiting)
- kidney problems (seen in a blood test).

Uncommon (affects 1 to 10 users in 1,000)
mod changes

- change of colour in your fingernails or toes (pale) followed by redness or numbness or tingling in your fingers or toes
- changes in the way things taste
- feeling sleepy
- spinning feeling (vertigo)
- having difficulty sleeping
- stroke
- fast heart beat
- runny nose

- stomach pain/acid indigestion
- skin rash or itching
- being unable to get an erection (impotence)
- feeling tired or feeling weak (loss of strength)
- a very big drop in blood pressure may happen in people with the following conditions: coronary heart disease; narrowing of the aorta (a heart artery); kidney artery or heart valves; an increase in the thickness of the heart muscle. If this happens to you, you may feel dizzy, light-headed, especially if you stand up quickly
- changes in blood tests that show how well your liver and kidneys are working
- heart attack
- seen and/or heard hallucinations.

Rare (affects 1 to 10 users in 10,000)

- swelling of the throat
- a lumpy rash (hives)
- dry mouth
- fair skin
- psoriasis (a skin problem)
- changes in the way things smell
- abnormal changes in the breasts in men
- changes to some of the cells or other parts of your blood. Your doctor may take blood samples from time to time to check whether Lisinopril has had any effect on your blood. The signs may include feeling tired, pale skin, a sore throat, high temperature (fever), joint and muscle pains, swelling of the joints or glands, or sensitivity to sunlight
- low levels of sodium in your blood (the symptoms may be tiredness, headache, nausea, vomiting).

Sudden renal failure.

Very rare (affects less than 1 user in 10,000)

- sinusitis (a feeling of pain and fullness behind your nose and eyes)
- wheezing
- low levels of sugar in your blood
- severe skin redness. The signs may include feeling hungry or weak, sweating and a fast heartbeat
- inflammation of the lungs. The signs include cough, feeling short of breath and high temperature (fever)
- yellowing of the skin or the whites of the eyes (jaundice)

■ inflammation of the liver. This can cause loss of appetite, yellowing of the skin and eyes, and dark coloured urine

■ inflammation of the pancreas. This causes moderate to severe pain in the stomach

■ severe skin redness. The symptoms include redness, blistering and peeling

■ sweating

■ passing a lot of water (urine) than normal or passing no water

■ liver failure

■ inflammation of the heart muscle

Not known (frequency cannot be estimated from available data)

■ symptoms of depression

■ fainting. Side effects in children appear to be comparable to those seen in adults.

Reporting of side effects
 If you get any side effects, talk to your doctor or pharmacist. It includes any possible side effects not listed in this leaflet. You can also report side effects directly via the Yellow Card Scheme at: www.mhra.gov.uk/yellowcard or go to www.MHRA Yellow Card in the Google Play or Apple App Store.

By reporting side effects you can help provide more information on the safety of this medicine.

5. How to store Lisinopril 1 mg/ml oral solution

- Keep out of the sight and reach of children.
- Do not use after the expiry date which is stated on the bottle label and the carton. The expiry date refers to the last day of that month.
- This medicine does not require any special storage conditions.

Do not use after 30 days from the first opening of the bottle.

Do not throw away any medicine via wastewater or household waste. Ask your pharmacist how to dispose of medicines you no longer use. These measures will help protect the environment.

6. Contents of the pack and other information

What Lisinopril 1 mg/ml oral solution contains
 The active substance is lisinopril dihydrate. Equivalent to 1 mg lisinopril = 1 mg lisinopril per 1 ml oral solution.

The other ingredients are glycerol (E 422), hydroxyethylcellulose, sodium benzoate (E 211), citric acid monohydrate (E 520) and purified water. (See end of Section 2 for further information on sodium, an essential salt)

What Lisinopril 1 mg/ml oral solution looks like and contents of the pack
 Lisinopril 1 mg/ml oral solution is a clear and colourless solution in a sweet taste.

Lisinopril 1 mg/ml oral solution is available in a 150 ml brown glass bottle with a tampeveident closure and a double-ended measuring spoon. One end of the spoon will give you 5 ml of the solution and the other will give you 2.5 ml.

Marketing Authorisation Holder
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