

Lithium; information for patients

What is lithium and what is it used for?

Lithium is a chemical element that is very like sodium which is in the salt you use in your food. Lithium is found naturally in many types of mineral water. However, this is much smaller than the amount needed when used as a medicine.

When lithium is swallowed, it goes from your stomach into your bloodstream. It then travels around the body and is finally removed from the body by the kidneys.

Lithium is used to:

- Prevent mood swings caused by 'bipolar affective disorder' – this is also known sometimes as just 'bipolar'
- Treat mania, a feeling of being very excited and being over-active
- Treat depression in people who have had depression that has been very severe, lasted a long time, or keeps coming back. For these people, lithium can help to keep their mood stable.

Checks needed before you start to take lithium

Your doctor will want to do some checks before he or she prescribes lithium for you. He or she will want to know that you are in good physical health. This will include measuring your weight or weight-to-height ratio, known as your body mass index (BMI), as well as checking your:

- Kidneys; lithium is removed from your body by your kidneys. This means it is important that your doctor checks that your kidneys are in good working order. This can be done with a blood test called e-GFR ('estimated glomerular filtration rate').
- Thyroid; this is a gland in your neck. If it is under-active, you can feel tired and lack energy. This can be mistaken for being depressed. So your doctor needs to check that your thyroid is in good working order. These blood tests are called TFTs ('Thyroid Function Tests'). Also, in the longer term, lithium can affect the way your thyroid works. Your doctor will want to keep a check on this with regular blood tests.
- Heart; if you have heart problems, this can affect whether lithium is suitable for you. If you are older, have had heart problems (or someone in your close family has heart problems), your doctor may want to do a heart trace. This is called an ECG ('electro-cardiogram').

Pregnancy and contraception

- It is best not to take lithium while pregnant, as it can harm the unborn baby. However, some women decide to keep taking it.
- If you are a woman who might become pregnant, it is important that you use contraception while taking lithium.
- If you are taking lithium and you are pregnant or might become pregnant, speak to your doctor as soon as possible. He or she will tell you about the best treatment for you and your unborn baby.
- If you decide to keep taking lithium while pregnant, you will need extra health checks.

How to take lithium

How much to take

- You will start with a low dose, usually 200mg to 400mg at night, and the dose will be increased as required to reach the right lithium blood level for you.
- Check with your doctor or pharmacist before taking if:
 - The dose of your lithium has been changed and no one has explained why
 - You are given a different brand of lithium – this is because alternative brands release the lithium into your stomach differently.

How to take lithium tablets

If you are taking lithium tablets:

- Swallow them whole
- Do not crush or chew them
- If you find your tablets difficult to swallow, ask your doctor if a liquid preparation would be worth trying instead.

When to take lithium

- Take your lithium each night at the same time. You need to take it at night because blood tests need to be done during the day, 12 hours after a dose
- If you are taking twice daily doses of liquid lithium, remember to take your morning dose after you have had your blood test.

What if you forget a dose?

- If you forget to take a dose, take your next dose at the correct time. Do not try to catch up on missed doses.
- It is important to take the prescribed dose and not to increase or decrease it. Only then will the monitoring of the lithium levels in your blood help make your therapy effective and safe.

How long should I take lithium for?

- Talk to your doctor about how long you may need to take lithium. It is usually a long-term treatment.
- If you do not think you need to take lithium any more, talk to your doctor about the best thing to do for you.
- It is important that you do not stop taking your lithium suddenly. This is because your illness may come back quite quickly.

Blood tests after starting to take lithium

- While you are taking lithium you need to have regular blood tests to see how much lithium is in your blood.
- It is important that blood tests for lithium levels are taken at least 12 hours after you took your last dose of lithium. If blood is taken before this time, the lithium level will not have settled down in your blood since the last dose. So if you take your dose at 10 o'clock at night, you cannot have the blood test before 10 o'clock in the morning.

Checking how much lithium is in your blood

The first few weeks:

- A blood sample will be taken from you about a week after you start taking lithium. This is to see how much is in your blood.
- Your blood will be tested again each week until the level of lithium in your blood is right.

Every three months:

- Your doctor will do a blood test to check that you still have the right level of lithium in your blood.
- Depending on each result your doctor may adjust the dose

Depending on your age and the illness you have, the level the doctor is aiming for is between 0.4 mmol/L and 1.0 mmol/L of lithium in your blood (mmol/L means 'millimoles per litre' which is a way of describing an amount in a specific volume, in this case the amount of lithium in one litre of blood). In a very small number of people, a slightly higher level of lithium in the blood may be needed.

Checking your kidneys and thyroid

- Your doctor will also do a blood test every six months to check that your kidneys and thyroid are working well.

What side effects can lithium cause?

Lithium may cause:

- upset stomach – particularly at the start of treatment
- fine shake ('tremor') of your hands
- metallic taste in your mouth
- weight gain
- swelling of your ankles
- feeling more thirsty than usual and passing a lot of urine.

If you get any of these side effects or any other problems you think might be side effects, talk to your healthcare professional.

Lithium can also:

- Make your thyroid less active
- Affect the way your kidneys work.

That is why you need the regular thyroid and kidney blood tests, as mentioned earlier.

What happens if the level of lithium in my blood is too high?

If you have too much lithium in your blood, this is called lithium toxicity (or lithium poisoning). This can make you very ill.

Read the following list very carefully. If you get one or more of these problems at any time, talk to your doctor or another healthcare professional straight away.

- Severe hand shake ('tremor')
- Stomach ache along with feeling sick and having diarrhoea
- Muscle weakness

- Being unsteady on your feet
- Muscle twitches
- Slurring of words – so that it is difficult for others to understand what you are saying
- Blurred vision
- Confusion
- Feeling unusually sleepy

A small number of people may not have any immediate symptoms of toxicity when the level of lithium in their blood is too high. Regular checks can prevent long-term problems.

What can make the level of lithium in my blood get too high?

The three most common causes of too much lithium in your blood are:

1. Getting dehydrated: you can get dehydrated if you are in a hot climate, have sickness and diarrhoea, or have had too much alcohol to drink. Getting dehydrated can make the level of lithium in your blood too high. To help stop you getting dehydrated, try to drink plenty of water. If you have sickness and diarrhoea for more than a day or two, see your doctor to have your lithium level checked.
2. Big changes in the level of salt in your diet. Do not go on a low salt diet; talk to your doctor first.
3. Taking some other medicines: other medicines can affect the way your kidneys deal with lithium. Taking these medicines can make the level of lithium in your blood go up. Always remind your doctor and pharmacist that you take lithium before you take any new medicines. This includes medicines prescribed by your doctor or bought from a pharmacy or other shop. For example, if you are prescribed medication for blood pressure, heart problems or pain, check with your doctor or pharmacist. Ask them if this medicine could affect the level of lithium in your blood. Before buying a medicine to treat pain, you should check that it is safe to take with lithium. Every time you are prescribed a new medicine, always check that it is safe to take with your lithium. If you have any questions or worries about your lithium therapy, talk to your healthcare professional.