



Neuropathic pain medicines

This information sheet from Great Ormond Street Hospital (GOSH) explains about medicines used to treat neuropathic pain – pain caused by the nerves sending wrong signals to and from the brain. At GOSH, we mainly use amitriptyline, gabapentin and pregabalin, although other medicines are available.

This information sheet should be read in conjunction with any information provided by the manufacturer. However, please note that this information sheet explains about the use of neuropathic pain medicines in children and young people so may differ from the manufacturer's information.

This information sheet explains what neuropathic pain medicines are, how they are given and some of the possible side effects. Each person reacts differently to medicines, so your child will not necessarily suffer from every side effect mentioned. If you have any questions or concerns, please speak to your doctor, nurse or pharmacist.

In certain circumstances, medicines may be prescribed for a child outside the age range recommended by the manufacturer. Medicines are often used "off licence" because trial data are not available for a specific use, in children, for example. This is not necessarily hazardous but should be explained and agreed before use. Your doctor will explain this further to you.

What is neuropathic pain?

Pain occurs when receptors in our skin send a signal through the nerves to the spinal cord and brain. Damage to the receptors or the nerves themselves can cause faulty signals. This leads to pain – how a person feels this pain will vary, some report a dull ache, but others describe it as burning sensation or sharp shooting pains. This pain is called neuropathic pain (neuro = nerves and pathy = abnormality) and can occur following injury or surgery as well as a symptom of other diseases/medical conditions or no obvious cause can be found.

The aim of treatment is to control the symptoms without causing problematic side effects. As well as medication, other non-medical treatments are also available to help with neuropathic pain. Which medication your child is prescribed will depend on their specific symptoms.





Amitriptyline

This is a tricyclic antidepressant medicine which changes the balance of chemicals in the brain called neurotransmitters, particularly the ones called serotonin and noradrenaline. However, Amitriptyline is used at a low dose to manage neuropathic pain

Amitriptyline is available as tablets of various strengths (10mg, 25mg and 50mg) and as a liquid oral solution (25mg/5ml that is, every 5ml of liquid contains 25mg of the active ingredient).

How is it given?

Amitriptyline is usually started at a low dose and gradually increased over time until it is at the best dose for controlling symptoms without causing problematic side effects. Most commonly, it is taken once a day in the evening.

Who should not take amitriptyline?

People with the following conditions should discuss using amitriptyline with their doctor.

- Hypersensitivity to amitriptyline or any of its ingredients
- Pregnant, could be pregnant, trying to become pregnant or breastfeeding
- Existing heart or liver problems
- Existing mental health problems

What are the side effects?

If any of these side effects are severe or carry on for a long time, please tell your doctor.

- Heart flutters
- Vision problems
- Sleepiness – this is why a once daily dose is best given in the evening
- Dry mouth
- Tummy upset – nausea and/or vomiting– this tends to improve in time
- Constipation



Amitriptyline and other medicines

Some medicines can react with amitriptyline, altering how well it works. Always check with your doctor or pharmacist before giving your child any other medicine, including medicines on prescription from your family doctor (GP), medicines bought from a pharmacy (chemist) or any herbal or complementary medicines. The following are known to react with amitriptyline:

- Opioid pain medicines, such as morphine and tramadol – these can cause extreme sleepiness
- Anti-coagulant medicines
- Other antidepressant medicines
- Anti-epileptic medicines
- Some antiviral medicines

Gabapentin and pregabalin

Both gabapentin and pregabalin are anti-epileptic medicines that damp down the electrical activity in the brain and therefore help to reduce the pain signals.

The decision to use either gabapentin or pregabalin will be dependent on your child's symptoms and how the frequency of doses can be balanced with school and social life. This will be discussed with you and or your child before treatment is started. Both gabapentin or pregabalin are usually started at a low dose and gradually increase over time until it is at the best dose for controlling symptoms without causing problematic side effects.

Occasionally, children and young people may be more emotional, show changes in behaviour or feel very low while taking either gabapentin or pregabalin. If this occurs, discuss this with your doctor and if necessary, the medicine may need to be discontinued.



Gabapentin

Gabapentin is available as tablets of various strengths (600mg and 800mg) and capsules of various strengths (100mg, 300mg and 400mg). If your child cannot swallow tablets or capsules whole, the tablets can be crushed or the capsule opened and the powder mixed with a strong tasting liquid or food. It is also available as a liquid oral solution (50 mg/ml which means that every 1ml of liquid contains 50mg of the active ingredient).

How is it given?

Gabapentin is usually started at a low dose given at night and if tolerated, increased to twice a day then three times a day as directed.

Who should not take gabapentin?

People with the following conditions should discuss using gabapentin with their doctor.

- Hypersensitivity to gabapentin or any of its ingredients
- Pregnant, could be pregnant, trying to become pregnant or breastfeeding
- Existing kidney problems
- Diabetes
- Existing mental health problems

What are the side effects?

If any of these side effects are severe or carry on for a long time, please tell your doctor.

- Drowsiness, dizziness and feeling wobbly
- Changed appetite (eating more or less than usual)
- Upset stomach with nausea and vomiting

Gabapentin and other medicines

Some medicines can react with gabapentin, altering how well it works. Always check with your doctor or pharmacist before giving your child any other medicine, including medicines on prescription from your family doctor (GP), medicines bought

from a pharmacy (chemist) or any herbal or complementary medicines. The following are known to react with gabapentin:

- Antacids to treat indigestion
- Opioid pain medicines, such as morphine and tramadol – these can cause extreme sleepiness
- Anti-malarial medicines

Pregabalin

Pregabalin (under the brand name Lyrica®) is available as capsules of various strengths – 25mg, 50mg, 75mg, 100mg, 150mg, 200mg, 225mg and 300mg. It is also available as a liquid oral solution (20mg/ml which means that every 1ml of liquid contains 20mg of the active ingredient).

How is it given?

Pregabalin is usually started with a low dose given at night and if tolerated, increased to twice a day as directed.

Who should not take pregabalin?

People with the following conditions should discuss using pregabalin with their doctor.

- Hypersensitivity to pregabalin or any of its ingredients
- Pregnant, could be pregnant, trying to become pregnant or breastfeeding
- Existing kidney, heart or central nervous system problems

What are the side effects?

If any of these side effects are severe or carry on for a long time, please tell your doctor.

- Dizziness, headaches and drowsiness
- Upset stomach
- Dry mouth
- Balance problems





Pregabalin and other medicines

Some medicines can react with pregabalin, altering how well it works. Always check with your doctor or pharmacist before giving your child any other medicine, including medicines on prescription from your family doctor (GP), medicines bought from a pharmacy (chemist) or any herbal or complementary medicines. The following are known to react with pregabalin:

- Lorazepam – a benzodiazepine used to treat anxiety
- Opioid pain medicines, such as morphine and tramadol – these can cause extreme sleepiness
- Medications to damp down the central nervous system

Important Information

- Always check the expiry date of the medicine before you give it to your child.
- Keep medicines in a safe place where children cannot reach them.
- If you forget to give your child a dose and it is within a few hours of when the dose was due, give it as soon as you remember. Otherwise, do not give this dose but give the next dose when it is due. Do not give a double dose.
- If your child vomits straight after taking the dose, inform your local doctor or nurse, as your child may need to take another one
- If your doctor decides to stop treatment or the medicine passes its expiry date, return any unused medicine to the pharmacist. Do not flush it down the toilet or throw it away.



Compiled by the Pharmacy and Pain departments in collaboration with the Child and Family Information Group Great Ormond Street Hospital for Children NHS Foundation Trust, Great Ormond Street, London WC1N 3JH www.gosh.nhs.uk

Useful numbers

GOSH switchboard: 020 7405 9200

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