



Medicines for long-term pain

Antidepressants



Many people living with long-term pain (also known as chronic or persistent pain) are worried about using medicines like antidepressants. They might worry that the doctor thinks it's 'all in my mind'. And they want to know how the medication works and whether it is safe. Unanswered concerns like these can stop people continuing with medicines that may help to reduce their pain.

Before taking medication for long-term pain

You should discuss with your doctor or other healthcare professional what you expect from treatment with pain medicine.

Pain-relieving medicines (painkillers) are generally the first step in treating pain after surgery or an injury. However, it is rarely possible to relieve long-term pain completely with painkillers. The aim of treatment is to reduce your pain enough to help you get on with your life.

Medicines work best if you combine them with other ways of managing symptoms, such as regular activity and exercise, and doing things that you enjoy, such as work or study and social activities. Setting goals to



help improve your life is an important way to see if these drugs are helping.

The two types of pain

Doctors recognise pain as either 'nociceptive' or 'neuropathic' (or

sometimes both). It is important to recognise both types of pain, as they need different medicines. Nociceptive pain begins after tissue damage (for example, an injury such as a broken ankle or sunburn) and may continue, in the case of long-term conditions such as osteoarthritis and some low back pain. It is the most common form of long-term pain.

Although the pain may begin as nociceptive, over time there may be changes in the nervous system that mean the pain continues even when the original cause has gone. Neuropathic (nerve) pain often follows damage that makes the nerve overactive, for example after shingles or with long-term diabetes.

Medicines used for neuropathic pain usually aim to 'calm' the overactive nerves or sometimes to alter the balance of the nerves that increase or decrease the sensation of pain. Surprisingly, many medicines used in this type of pain did not start off as painkillers, but it was noticed that they could help. Medicines used in other conditions where the nervous tissue is overactive or 'excited', such as epilepsy or depression, have turned out to be useful for long-term nerve pain.

Medication therapy

Medicines such as codeine and ibuprofen are used for nociceptive pain, but don't usually work for nerve pain. The most useful medicines for nerve pain had other uses first. For instance, amitriptyline was originally an antidepressant medication but is now used most commonly for pain. Some anticonvulsant drugs are now used more often for nerve pain than for epilepsy.

General principles of medicine therapy

Your doctor should start you off on a low dose and gradually increase it until you get useful relief from the pain (or get side effects that bother you). If there is no useful benefit, your doctor should stop the medicine. Be brutally honest with yourself and your healthcare professional as it is very important that you do not continue on long-term medication that is not really working. Your doctor may reduce the dose gradually over several weeks, to avoid possible side effects from suddenly stopping. If you get only a little benefit from the medication, your doctor may add another medication. Once you are on the right dose and the right drug, you may continue on the medication long term. You and your doctor may decide that

you should have a break from the medication every six months or so, to see if the medication is still necessary.

Most doctors agree that medication for long-term pain should be taken round the clock (at regular, prescribed times) rather than when you think you need it. Waiting until the pain gets worse makes it harder for the medication to control it.

All in the mind?

Being given an antidepressant for pain relief never suggests that your pain is imaginary or due to you being depressed. The way antidepressants reduce pain seems different from the way they affect depression. The dose needed for treating depression is usually much higher than the doses used for pain. There are many different medications for depression, but only some are effective painkillers.

It is important that your doctor explains the reason for prescribing these drugs and that it is not because they think that your pain is due to depression.

If you have depression as well as longterm pain, it can make your pain much worse. However, depression is often a reaction to long-term pain and it can improve as the pain improves. If your depression is severe, you may need specialist treatment. Talk to a doctor or counsellor immediately if you feel depressed or suicidal.

What type of pain are antidepressants used for?

Antidepressants seem to work best for pain caused by nerve damage. They can also be useful for long-term nociceptive pain such as arthritis, especially if nerve pain is involved. Examples include pain from diabetic neuropathy, shingles, peripheral neuropathy, spinal cord injury, stroke, tension headache or migraine, facial pain and fibromyalgia.

How long will they take to work?

They do not work immediately. You may get some benefit after a week or so, but the most effect comes after several weeks.

What types are there?

Antidepressants are classed on their chemical structure and how they work. The three types used for long-term pain are tricyclics, SNRIs and SSRIs. Tricyclics are the most commonly used and most effective type, but they do not work for everyone.

Tricyclic antidepressants

Tricyclic antidepressants like amitriptyline are the 'gold standard' for nerve pain as they are the most effective and best-known drugs for this condition. They appear to work in the





nervous system by altering the amount of chemicals available to transmit pain. These chemicals are known as neurotransmitters and two common ones are serotonin and noradrenaline.

Tricyclic antidepressants include:

- amitriptyline;
- imipramine;
- clomipramine;
- doxepin;
- nortriptyline; and
- desipramine.

Side effects of tricyclic antidepressants

Many people report some minor side effects. Most commonly, about a third of people using tricyclics experience a dry mouth and drowsiness. It is worthwhile continuing with tricyclics as these side effects often reduce with time and there are things you can use to help (for example, artificial saliva).

Less common side effects include bad dreams or nightmares, blurred vision, feeling sick, dizziness when standing



up, weight gain, constipation and urine problems. Gaining weight can make your pain worse, so you might need to restrict calories (especially sugar and other carbohydrates) to help control your weight. People with glaucoma, heart problems (especially an irregular heartbeat), or prostate problems are usually not given these medicines. Remember to tell your doctor if any of these apply to you.

How are antidepressants given?

Usually your doctor starts you on a low dose and slowly increases the amount. For example, the starting dose for amitriptyline is 10 to 25 mg, with a maximum of 50 to 150 mg. They are usually taken once a day, one hour before going to bed because they can make people sleepy (which can be really good if you have a problem with sleep). However, you can take them at any time that suits you. If you find you are drowsy in the morning, try taking them earlier in the evening. Most people are able to take tricyclic antidepressants, particularly in low doses, with only mild side effects. The doses that are effective for pain are generally lower than the doses used for depression. Unless you get difficult side effects, you should try them for at least three months, because they are slow to work. If they help, they can

be used safely over the long term. Tricyclics are not addictive, but if you are coming off them your doctor will reduce your dose slowly.

Serotonin and norepinephrine reuptake inhibitors (SNRIs)

Some SNRIs, such as venlafaxine, duloxetine and milnacipran, can be helpful for long-term pain. They are sometimes less effective than tricyclics, but they are often better tolerated, especially in people who cannot take tricyclics.

Duloxetine can also cause side effects such as feeling sick, being too awake or too sleepy, headache, dry mouth, constipation or dizziness. About one in six people stop duloxetine because of side effects. Serious problems caused by duloxetine are very rare. It is widely used, in a dose of 30 to 90 mg.

Milnacipran is sometimes given for fibromyalgia. It can cause side effects such as nausea and drowsiness. It is





less effective for other types of pain, and is quite expensive, so is not often used for anything other than fibromyalgia.

Venlafaxine can cause drowsiness, insomnia or raised blood pressure, and may make heart problems worse.

Selective serotonin reuptake inhibitors (SSRIs)

SSRIs, which include drugs such as paroxetine and fluoxetine, may help. However, they generally do not work

as well as tricyclic antidepressants. Sometimes they have fewer side effects, although fluoxetine can cause insomnia and dizziness.

Doctor's viewpoint

Antidepressants help many people with pain get on with living their lives, and some people find that their life is completely changed by taking them. If your doctor offers you antidepressants it is well worth trying them and working with your doctor to reduce the less serious side effects.

The author: Dr Chris Wells has had a distinguished career in pain medicine, serving on the council of many scientific societies. He was president of the European Pain Federation EFIC until 2017. He is the author of three books and more than 150 articles.

The regulations controlling medicines change from time to time. For the latest information, please visit www.painconcern.org.uk, where you can also find out more about the evidence supporting this publication.

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