

Patient information from the BMJ Group

Migraine in adults

In this section

[What is it?](#)

[What are the symptoms?](#)

[How is it diagnosed?](#)

[How common is it?](#)

[What treatments work?](#)

[What will happen?](#)

[Questions to ask](#)

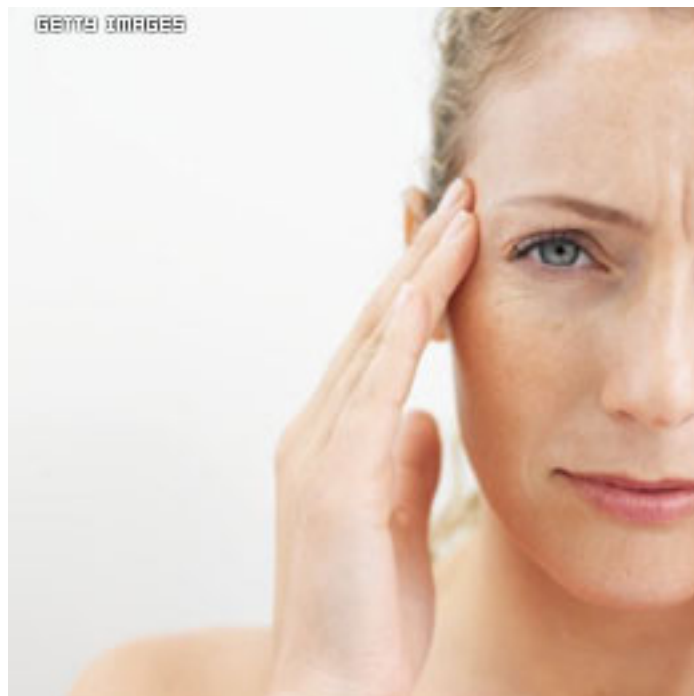
Migraine in adults

Migraine attacks can make it hard to live your life normally. But there are treatments that can help.

We've brought together the best research about migraine and weighed up the evidence about how to treat it. You can use our information to talk to your GP and decide which treatments are best for you.

What are migraines?

If you have been diagnosed as having migraines, you probably already know how much they can affect your life. A migraine attack can be so severe that it stops you getting on with life. An attack can feel like more than just a headache. You may feel odd beforehand, see dots or flashing lights, get pins and needles, or feel queasy or vomit.



The pain from migraines can stop you from going about your daily life.

Migraine in adults

There's no cure that can stop you getting migraines. But they can be treated, and there are also treatments that can help to prevent them. Lots of people cope well with migraines for many years, by taking medicine that stops the symptoms of an attack.

Having migraines doesn't mean something is seriously wrong with your brain. Scientists now think that in people who get migraines, part of their brain is more excitable than normal. Because of this the brain releases high levels of chemicals called **neurotransmitters**. These make the blood vessels in your brain dilate (get wider) and sometimes get **inflamed**. This is what causes the pain of migraines.

Key points for people with migraines

- Migraine attacks are severe headaches that last from four to 72 hours.
- You may also have other symptoms, such as feeling sick or being extra-sensitive to sound or light.
- About 1 in 6 people who have migraines sometimes get what's called an **aura**. This can cause temporary problems with your vision or pins and needles or numbness in parts of your body.
- You may be more likely to get a migraine attack if you are tired, hungry or stressed, or eat or drink certain foods.
- [Aspirin](#) can help if your pain is not too bad. Or you can try taking a tablet that has aspirin, paracetamol, and caffeine for extra relief (two brand names for this are Anadin Extra or Alka XS Go).
- [Ibuprofen](#) also works for migraines, but you may need the higher dose, which you can only get on a doctor's prescription.
- [Triptans](#) are drugs that work quickly to make you feel better. They can help if you have bad attacks, but they do have side effects. And they don't suit everyone.
- If you get migraine attacks often, talk to your GP about medicine to prevent them. To learn more, see [Treatments to prevent migraines](#).

Is my headache a migraine?

A group of headache specialists called the International Headache Society say that you're having a migraine if your headache lasts between four and 72 hours and you have at least two of the symptoms listed below: ^[1]

- The pain is on one side of your head (this is called **unilateral pain**)
- The pain is a throbbing pain

Migraine in adults

- The pain gets worse when you move
- The pain is moderate or severe. If your pain is moderate, you may be able to keep working, but only half as well as you would normally. If your pain is severe, you usually need to go to bed.

If you have a migraine attack you will also have one or more of the symptoms in this list:
^[1]

- You may feel sick or have an upset stomach, or you may actually be sick
- You may be extra-sensitive to light (photophobia)
- You may be extra-sensitive to sounds (phonophobia).

Different types of migraine: with or without auras

About 1 in every 6 people who have migraines also have temporary problems with their vision (usually lasting an hour or less) or feel pins and needles or numbness in parts of their body.^[1] You may also find that you cannot move parts of your body normally. These things usually happen before you get a migraine headache, and they are called migraine auras. The aura is a warning of an attack and can be frightening. To learn more, see [What causes auras?](#)

How often will I get migraines?

No one can say how often you will get migraine headaches, but the average is slightly more than one a month.^[1] Some people get them as often as once a week, and others get them much less often.

What causes migraines?

Researchers think that migraines are caused by a problem that makes some cells in your brain more excitable than normal.^[2] It doesn't mean there's anything wrong with your brain. To understand what causes your attacks, you may find it helpful to learn a bit about what your brain does and why it does it. To find out more, see [What does your brain do?](#)

Researchers are using new types of scanners to see what happens in the brain when someone has a migraine attack.^[1] One of these new types of scanners is a **position emission tomography scan**, or PET scan for short. This scan picks up the electrical and chemical changes that happen in the brain.

- Researchers believe that there is a pain centre at the base of the brain.

Migraine in adults

- If you get migraine attacks, you probably have a more sensitive pain centre than other people do. This means that your pain centre is overexcited by things that wouldn't bother someone else, such as bright lights or tiredness.
- The nerve cells in this centre react by telling the blood vessels in certain areas of your brain to open up (dilate). The walls of your blood vessels are slightly elastic, so they can get bigger to let more blood through or get narrower to let less blood through.
- When the blood vessels open up, nerves in the walls of the blood vessels release chemicals (called neurotransmitters) that make the vessels open up even more. These chemicals make the blood vessels **inflamed**. This is what causes the throbbing pain of a migraine attack.
- Migraine headaches can be so bad that they affect your sympathetic nervous system. This is the part of your nervous system that you have no control over. It gets your body ready to run away or fight any threat that comes along: in this case, a bad headache. In a migraine attack the effect on this part of your nervous system can make you feel sick, vomit, or have **diarrhoea**.
- When your sympathetic nervous system is affected, the action in your gut may slow down, so it takes longer for the food that you have eaten to leave your stomach. And it also takes longer for any tablets that you have taken to be digested and get into your blood. This is one reason why some treatments for migraine sometimes don't seem to work.
- Your sympathetic nervous system also makes the blood vessels in your skin get narrower, so you look pale. It can also make you more sensitive to what is going on around you, so that lights, noises, or smells are hard to bear.

What causes migraine auras?

Migraine auras seem to be caused by a wave of **electrical nerve impulses** (excitation) travelling slowly across part of your brain. This is followed by a long period of underactivity in this area.

If you have auras, this underactivity results in reduced action in the part of your body controlled by that section of your brain. The back of your brain, which controls your eyes, is most often affected. This explains why your eyes may see only part of what they are looking at. When the areas of your brain that are affected are the ones that control how your body feels, you may feel numb in one part of your body.

What can trigger a migraine attack?

You may find that certain things can set off your migraine attacks. These are called **migraine triggers**. Different people have different triggers. It's often hard to work out what the triggers are. There isn't much research, but common triggers include: ^[3] ^[4]

Migraine in adults

- Lack of sleep
- Hunger
- Bright lights or loud noises
- Anxiety
- Stress
- Certain foods, such as chocolate and some types of cheese
- Some food additives, such as nitrites and monosodium glutamate (MSG)
- Coffee and some alcoholic beverages, such as red wine
- Hormonal changes in women (for example, some women get migraine attacks when their period starts, when they are on the contraceptive pill, or when they are midway through their **menstrual cycle**)
- Changes in the weather, such as a change in barometric pressure
- Some prescribed medications.

Should I see my GP?

You may want to see your GP if:

- Your symptoms don't get better using over-the-counter medicine
- Your migraine attacks have got worse and you get them more often
- You are worried that something other than migraines may be causing your headaches (for example, if you have other symptoms)
- You are not completely free of symptoms between attacks. Tell your doctor if, for example, part of your body feels numb or you have problems with your vision even when you are not having an attack. ^[4] ^[5]

Researchers have found that more than half of people who get migraine attacks only use over-the-counter medicines. The researchers suggested that many people with migraine do not see their GP about their headaches because they think that there aren't any treatments that work. ^[6] But there are treatments that only your doctor can prescribe that can help. For example, one of the drugs known as [triptans](#) may work for you.

Migraine in adults

Migraine: why me?

If you get migraines, you may have inherited the tendency to get these attacks from one of your parents. This means that the tendency to get migraine attacks is in your **genes**

Genes are passed from parent to child. They programme how you develop and how your body works. Research shows that certain genes may be linked to migraines. However, genes don't completely explain why some people get migraines.

For some people, there may be something in their environment or something that happens when they are growing up (such as having a certain illness) that causes migraines.^[7] Researchers believe that having migraines with auras is more likely to be caused by genes than migraines without auras are.^[7]

What are the symptoms of migraines?

You have migraine if you get a headache that lasts from four to 72 hours and you also have at least two of the symptoms listed below.^[1]

- The pain is on one side of your head (this is called **unilateral pain**). This pain is often at the front of your head.
- The pain is a throbbing pain.
- The pain gets worse when you move.
- The pain is moderate or severe.

If you have a migraine attack you will also have one or more of the symptoms in this list:^[1]

- You may feel nauseated (as if your stomach is upset or you are going to vomit) or you may vomit
- You may feel extra-sensitive to light (this is called **photophobia**)
- You may be extra-sensitive to sounds (this is called **phonophobia**).

Migraine attacks often start when you wake up in the morning. If they start during the day, these attacks tend to take several hours to build up to their worst.^[8]

Different types of migraine: with or without auras

Some people who get migraine attacks also get what is called an **aura** before an attack. The aura happens because some of your nerves don't work in the way that they usually

Migraine in adults

do. The aura is a warning of an attack, and it can be frightening. About 1 in every 6 people who have migraines (15 percent) get auras.^[1] If you get an aura you may suddenly:

- See flashing lights or have blind spots (areas that you can't see)
- Have ringing in your ears
- Develop numbness in parts of your body, such as your hand, or have pins and needles^[1]
- Have trouble speaking. For example, you may not be able to find the right words.

All of these symptoms are what make migraines different from other headaches, including tension-type headaches (the most common type of headache). But every person is different, and your migraine symptoms may not be the same as other people's.

For more about what causes migraine symptoms, see [What are migraines?](#)

When should I see a doctor straight away?

If you have any of the symptoms in this list, see your doctor urgently.

- You have a very painful headache for the first time that came on suddenly (within one or two minutes), especially if you feel it is the worst headache of your life. If you have a headache that feels like someone has kicked you in the back of your head, it may be a sign that a blood vessel in your brain has leaked. If this has happened you need urgent treatment. Dial 999 or visit the Accident and Emergency (A&E) department of your local hospital.
- Your symptoms suddenly change. For example, you've had migraine attacks for a while, but there is a change in how often you have them and the headaches get stronger. Or perhaps your arm feels numb for the first time. Some people who have migraines with auras start getting attacks without auras. None of these things necessarily mean anything is seriously wrong. But your doctor will want to find out about any changes to the usual pattern of your symptoms.
- You have your first severe headache and you are over the age of 50. It is not very common to start having migraine attacks at this age, so your doctor will want to be certain that nothing else is causing your symptoms.
- You have a severe headache with fever, sickness, and possibly a rash. These symptoms could mean you have a serious illness called **meningitis** and you should get treatment straight away.

How do doctors diagnose migraines?

Your doctor will probably be able to diagnose migraine just by talking to you. ^[13]

Or your GP may refer you to a specialist called a **neurologist**. Again, the specialist may be able to tell that you get migraines just by talking to you.

Your doctor will probably ask you: ^[14]

- About the pain (where is it, what does it feel like, and what makes it better or worse?)
- How the headaches affect your life (what do you do when you have an attack?)
- How often you get these types of headaches
- If you get any other symptoms
- Whether the other symptoms go away between headaches
- Whether you have tried any over-the-counter medicines to treat your headaches (did they work?).

Your GP or specialist asks these questions to help him or her decide whether you have migraines or another type of headache. ^[14] For example, sometimes people take painkillers too often and this can actually cause a headache. This type of headache is called a **medication-overuse headache**, and it can become an almost-daily problem.

Another common type of headache is called a **tension-type headache**. This type of headache usually causes mild to moderate pain affecting both sides of the head, and it may be triggered by stress. ^[15]

How common are migraines?

Migraines are common. About 1 in 10 people will have a migraine attack in any one year.

^[1] Nearly 1 in 5 people will have an attack at some point in their life. ^[1] One study estimated that almost 6 million people in the United Kingdom are affected by migraine. ^[9]

- Women are more likely to have migraine attacks than men are. ^[1] A study that looked at adults in England found that about 18 in 100 women and 8 in 100 men have migraine attacks. ^[9]
- The same study found that white women were most likely to have migraines. ^[9]

Migraine in adults

- For some women, the start of their period each month may trigger an attack. Researchers think this happens because the level of a hormone called oestradiol drops at this time in a woman's cycle. Attacks linked to the menstrual cycle are more likely to occur on the first two days of a woman's period. ^[7] ^[10]
- Many women find that their migraine headaches become less severe or disappear when they are pregnant.
- Children can get migraine attacks too. Attacks can start at any age, but they usually start in children who are in their early- to mid-teens. ^[1] Boys tend to start getting migraines at a younger age than girls do.

What treatments work for migraines?

The good news about migraines is that there are treatments that work. These treatments can't completely stop you from getting migraine attacks. But if you use them as soon as you realise you are about to have an attack, they will reduce your pain and other symptoms, and should make you feel better.

Key points about treating migraines

- Learning as much as you can about migraines may make it easier to cope. To find out more, see [How you can help yourself](#) .
- A [migraine diary](#) might help you work out what things trigger a migraine attack, so that you can avoid these things in future.
- Most people who get migraines take painkillers that they buy from a pharmacy without a prescription, such as aspirin or ibuprofen.
- You can get combination painkillers from a pharmacist, which contain paracetamol and small amounts of a stronger painkiller called codeine. Some products also contain a medicine to stop you feeling sick. One brand is called Migralve. You can also get a combination of ibuprofen and codeine. But we haven't looked at the evidence for these combinations.
- Drugs called triptans have been designed especially for migraine attacks. They work well although they do have some side effects. You may have to try more than one triptan before finding one that suits you.
- You need to take your medicine at the first sign of an attack, as soon as you start having symptoms. ^[5]
- If you have frequent migraine attacks, ask your doctor about treatments to prevent them. To learn more, see [Treatments to prevent migraines](#) .

Migraine in adults

Which treatments work best? We've looked at the research and given a rating for each treatment according to how well it works.

For help in deciding which treatment is best for you, see [How to make the best decisions about treatment](#).

Treatment Group 1

How do I take my medicine?

You can take pills when you feel a migraine attack starting. But sometimes you may feel too sick to swallow pills, or you may vomit them up before they can work. If this happens to you, you can get medicine in different forms, such as:

- Tablets that you dissolve in water and then drink
- Injections
- Nasal sprays
- Special tablets or wafers that dissolve when you put them in your mouth
- Suppositories (soft capsules that you insert into your back passage).

Whatever medicine you use, make sure you read the instructions carefully. Sometimes people take painkillers regularly for long periods, and this can actually cause a headache. This type of headache is called a **medication-overuse headache**, and it can become almost a daily problem.

Treatments for migraine headaches

Treatments that work

With the exception of aspirin and ibuprofen, all the treatments in this category are triptans. Triptans make the blood vessels in your brain narrower, which can stop your brain from feeling the pain of migraine, at least partly.

- [Aspirin](#) : You can take aspirin on its own or combined with paracetamol and caffeine (Anadin Extra or Alka XS Go). [More...](#)
- [Ibuprofen](#) : Ibuprofen is a nonsteroidal anti-inflammatory drug (NSAID). You can buy a low dose of ibuprofen over the counter. One common brand name is Nurofen. But you can also just ask for ibuprofen. [More...](#)
- [Eletriptan](#) : Relpax is the brand name for eletriptan. [More...](#)
- [Naratriptan](#) : Naramig is the brand name for naratriptan. [More...](#)

Migraine in adults

- [Rizatriptan](#) : Maxalt is the brand name for rizatriptan. [More...](#)
- [Sumatriptan](#) : Imigran is the brand name for sumatriptan. [More...](#)
- [Zolmitriptan](#) : Zomig is the brand name for zolmitriptan. [More...](#)

Treatments that are likely to work

- [Diclofenac](#) : Diclofenac is a nonsteroidal anti-inflammatory drug (NSAID). The brand names are Diclomax and Voltarol. [More...](#)
- [Naproxen](#) : Naproxen is a nonsteroidal anti-inflammatory drug (NSAID). Its brand names are Naprosyn and Arthrofen. [More...](#)
- [Tolfenamic acid](#) : Tolfenamic acid is a nonsteroidal anti-inflammatory drug (NSAID). The brand name is Clotam. [More...](#)
- [Drugs based on ergotamine](#) : These medicines make your blood vessels narrower. This may stop you feeling the migraine pain. The brand names for ergotamines are Cafergot and Migril. [More...](#)

Other treatments

We haven't looked at the research on these treatments in as much detail as we've looked at the research on most of the treatments we cover. (To read more, see Our method.) But we've included some information because you may have heard of them or be interested in them.

- [Paracetamol](#) : This is an over-the-counter painkiller that many people take for migraines. [More...](#)
- [Treatments to prevent migraines](#) : There are several treatments your doctor might recommend to help prevent migraines, including medications, acupuncture, injections, and surgery. [More...](#)

What will happen to me?

If you suffer from migraines, you are likely to get them regularly. But how often different people get attacks varies a lot.

The average is just over one attack a month. But at least 1 person in 10 who gets migraine will have an attack every week. And 1 in 5 people with migraine will have attacks that last two or three days. ^[1]

If you have two or more migraine attacks each month, or if your attacks are very bad or last for a few days, you may want to ask your doctor about medicine you can take to prevent attacks. To learn more, see [Treatments to prevent migraines](#) .

Migraine in adults

You may also want to keep a [diary of your migraine attacks](#) . This will help you and your doctor track how often you have attacks and how long they last. It will make it easier to decide which treatment may be best for you.

When you have an attack, your headache will usually last from four to 72 hours. Your headache will gradually get better whether or not you have any treatment, but most people take medicine so they can get over the attack more quickly.

If you are a woman, you may get fewer migraine attacks as you get older. About two-thirds of women who have migraine get better when they reach the **menopause** .^[11] This may be because certain female hormones are linked to migraine, and hormone levels change after the menopause.

Other conditions associated with migraines

If you get migraine attacks, you may be more likely than other people to develop other conditions. You may have heard that you are more likely to have **strokes** or fits (also called seizures). But there isn't very good evidence for this theory. It may be that if you have epilepsy (a condition that causes seizures), you are more likely to have migraines. Because the research isn't good, we can't say for certain how these conditions are related.

There is some evidence that women who are under 45 and get migraine attacks may be at a higher risk of having a stroke. The research comes from studies comparing people who have had strokes with those who haven't.^[12]

Generally, doctors advise women who have migraines not to smoke. Doctors also advise women who take the contraceptive pill to choose one with the lowest possible dose of oestrogen. If you are a young woman who gets migraines, you may want to talk with your GP about your risk of having a stroke.

How do migraines affect your life?

People who don't get migraine attacks don't always understand how terrible these attacks can be. They may think you are making a fuss if you are off work with a headache or you have to rest in a darkened room. Yet a survey carried out by the World Health Organization rated having severe migraines as one of the most disabling long-term disorders that someone can have.^[1]

It's not just the pain of the migraine attack that you have to cope with. Many people with migraine feel tired or 'washed out' after an attack. These feelings can carry on for some time after the pain has gone.

To help your friends and family learn more about migraines, you may want to show them some of the information in this article.

Another large study from the US shows that most people can't carry on with normal activities during a migraine attack. More than half said their severe headaches stopped them working or doing household tasks or meant they had to stay in bed.^[6]

Migraine in adults

To see for yourself how bad your migraine attacks are, try the Migraine Disability Assessment Scale (MIDAS) questionnaire, which is available at <http://www.uhs.berkeley.edu/home/healthtopics/pdf/assessment.pdf> .

Doctors often use this questionnaire to find out how much of a problem migraine attacks are causing in a someone's life.

Questions to ask your doctor

If you have been diagnosed as having migraine attacks, you may want to talk to your GP to find out more.

Here are some questions that you might want to ask:

- Is there anything I can do to stop having these headaches?
- My symptoms scare me. How do I know I'm not having a stroke ?
- What can I do to stop a migraine attack once it starts?
- Is it alright to keep taking painkillers if my pain is bad most days?
- Do I need tests to make sure there is not something else wrong with me?
- What are the most common things that trigger these headaches?
- What's the best treatment for me?
- Are [triptans](#) the best medicine for me?
- What are the side effects of treatment?
- Will these treatments affect the other medications I take?
- Is there anything I can do to help myself?
- How much sleep should I get to make sure I avoid attacks?
- Will the same thing affect other members of my family?

Treatments:

Aspirin

In this section

[Does it work?](#)

[What is it?](#)

[How can it help?](#)

Migraine in adults

[How does it work?](#)

[Can it be harmful?](#)

[How good is the research on aspirin?](#)

This information is for adults who get migraines. It tells you about aspirin, a treatment used for migraines. It is based on the best and most up-to-date research.

Does it work?

Yes. There is good evidence that your headache will feel better if you take aspirin alone or combined with a drug that stops you feeling sick, called an anti-emetic. (You can get aspirin with an anti-emetic only on prescription from your doctor).

Effervescent aspirin (the type you dissolve in water and then drink) taken alone or combined with the anti-emetic metoclopramide will also make you feel better. Taking aspirin in this way may work faster than taking tablets. That's because, as your migraine attack starts, your stomach and gut slow down. When this happens, it takes longer for tablets to be digested and get into your system.

What is it?

Aspirin is a popular painkiller. It is a type of **nonsteroidal anti-inflammatory drug** (NSAID).

You can take aspirin on its own or combined with paracetamol and caffeine. You can also take aspirin with drugs that stop you feeling sick (anti-emetics).

- The brand name for aspirin combined with paracetamol and caffeine is Anadin Extra.
- The brand name for aspirin combined with a drug to stop you feeling sick is Migramax.

How can it help?

Aspirin can make your headache better, whether you take it on its own or combined with paracetamol or caffeine. ^[18] ^[19]

- Aspirin can make mild and moderate migraine attacks better, but it needs to be taken early on.
- Aspirin can also reduce the pain of a more severe headache but may not get rid of it.
- Aspirin, paracetamol, and caffeine taken together may help other symptoms, such as being extra-sensitive to light or noise. ^[20]
- Aspirin works whichever way you take it. You can take it as tablets that you swallow with water, and as tablets that dissolve in water or in your mouth. ^[21] ^[22] ^[23]

Migraine in adults

One study found aspirin worked as well as a prescription drug called [sumatriptan](#).^[24]
Another study found aspirin works as well as paracetamol combined with codeine.^[25]

How does it work?

Aspirin is a painkiller. No one knows exactly how it works to relieve migraine attacks. But we do know that aspirin stops your body making chemicals called prostaglandins. Your body makes these chemicals when you are in pain or injured. They cause [inflammation](#) and make you more sensitive to pain.

By stopping the prostaglandins, aspirin may reduce the inflammation that causes migraines. Aspirin may also tell your brain to stop feeling so much pain.^[26]

Caffeine, metoclopramide, and paracetamol can work with aspirin to help relieve the symptoms of migraine.

- Caffeine causes blood vessels in your brain to narrow, and it may make aspirin work better as well.
- Metoclopramide makes you feel less sick.
- Paracetamol can help ease your pain.

Can it be harmful?

Stomach problems

The main drawback of aspirin and other NSAIDs is that they can irritate the lining of your stomach. This can sometimes cause bleeding in the stomach, and [stomach ulcers](#), especially if you are elderly. This is a serious problem that can be life-threatening.^[27]

- One study we looked at found that 3 in 100 people had serious side effects. But 2 in 100 people who took a dummy treatment (a placebo) also had these side effects. So we can't be sure that aspirin actually caused the side effects.^[28]
- A study of people taking a combination of aspirin, paracetamol, and caffeine found that patients had no serious side effects.^[29]

You need to be sure not to take more than the recommended dose. Higher doses are more likely to cause side effects. Check with your doctor or pharmacist how many tablets you can take every day. Doctors are advised to use the lowest dose that will control your pain. And you shouldn't take more than one NSAID at a time.^[29] (Ibuprofen is another common NSAID.)

If you have a high risk of getting stomach ulcers, your doctor may prescribe another drug to protect your stomach.^[27]

Migraine in adults

Some people shouldn't take NSAIDs at all. If you've had a stomach ulcer before, or if you have one now, you shouldn't take NSAIDs. ^[29] Talk to your doctor to find out what painkillers are safe for you.

Other side effects

Between 1 in 10 and 2 in 10 people who take aspirin with or without other medicines may get mild side effects. But aspirin has been used by millions of people for many years, and serious problems are rare. ^[20]

The most common side effects are:

- Sleepiness or drowsiness
- Pain in the abdomen
- Nausea or vomiting
- Tiredness.

How good is the research on aspirin?

There is good evidence that aspirin will make your migraine headache better. If your headache is severe, it will reduce the pain but may not get rid of it entirely.

The research on aspirin is good because it comes from many reliable studies called **randomised controlled trials** (or RCTs for short) and from a big summary of the research (known as a **systematic review**). These studies looked at different ways of taking aspirin: as a pill, as a drip (**IV infusion**), as a pill you dissolve in water, and as a pill that dissolves in your mouth.

Some studies compared aspirin with a dummy treatment (a **placebo**). In general, aspirin (either on its own, or combined with a drug that stops you feeling sick), worked better than a placebo in giving people relief from migraine attacks. Aspirin reduced people's headaches from severe or moderate, to mild or none.

Studies have also compared aspirin with other drugs for migraine, including paracetamol plus codeine, and prescription drugs such as [sumatriptan](#).

Here is a summary of what the studies found.

- One study found it worked about the same as two other painkillers taken together, paracetamol plus codeine.
- Other studies found it worked as well as the prescription drugs [sumatriptan](#) and [zolmitriptan](#).
- And one study found it worked better than a drug called [ergotamine](#).

Ibuprofen

In this section

[Does it work?](#)

[What is it?](#)

[How can it help?](#)

[How does it work?](#)

[Can it be harmful?](#)

[How good is the research on ibuprofen?](#)

This information is for adults who get migraines. It tells you about ibuprofen, a treatment used for migraines. It is based on the best and most up-to-date research.

Does it work?

Yes. If you take ibuprofen, there is a good chance that a migraine headache will get better.

What is it?

Ibuprofen is a **nonsteroidal anti-inflammatory drug** (NSAID). You can buy it over the counter at a pharmacy. Or you can get higher doses on prescription from your doctor.

Nurofen and Cuprofen are common brands, but you can also just ask for ibuprofen.

How can it help?

Ibuprofen can make the headache from your migraine better. It can also help with other symptoms, such as nausea, vomiting, and being extra-sensitive to light and sound.

However, it does not help everyone. ^[30]

Here's what we know from the research. ^[30]

- Around 1 in 4 people taking 400 milligrams (mg) of ibuprofen for moderate to severe migraine pain will have no pain after two hours, compared with only 1 in 10 people taking a pretend treatment (a **placebo**).
- Around 1 in 2 people taking 400 mg will have no worse than mild pain after two hours, compared with only 1 in 4 people taking a placebo.
- A 200 mg dose of ibuprofen can also help, although not as much as the higher dose.
- A 400 mg dose of ibuprofen works as well as a 1,000 mg dose of [aspirin](#).

How does it work?

Like other NSAIDs, ibuprofen works by stopping your body making chemicals called prostaglandins. Your body makes these chemicals when you are in pain or injured. Prostaglandins cause **inflammation** and make you more sensitive to pain. By stopping the prostaglandins, ibuprofen can help you feel better.

Migraine in adults

Can it be harmful?

The drawback of ibuprofen and other NSAIDs is that they can irritate the lining of your stomach. This may cause stomach **ulcers** or bleeding in your stomach. It's usually best not to take NSAIDs if you have a stomach ulcer or if you've had one in the past.

A study showed that about 1 in 10 people taking ibuprofen had pain and discomfort in their stomach, but this side effect was not a serious problem. ^[31]

Guidelines for doctors say that patients who need an NSAID should take ibuprofen first because it has fewer side effects than other NSAIDs. Guidelines also say that if you need an NSAID you should:

- Start on the lowest recommended dose
- Not use more than one NSAID at a time.

NSAIDs can also make **asthma** worse. ^[32]

Taking high doses of some NSAIDs every day for a long time may increase your risk of getting a **heart attack** or a **stroke**. This is unlikely to be a problem with the doses you take for a migraine. But if you'd like to read more, see [Warnings about side effects of NSAIDs](#).

How good is the research on ibuprofen?

There is good research to show that ibuprofen can help if you get migraines. We found a summary of the research (a **systematic review**) that looked at nine high-quality studies (**randomised controlled trials**) with 4,373 people.

Around 1 in 2 people had no worse than mild pain two hours after taking ibuprofen and 1 in 4 people had no pain. ibuprofen also helped with other symptoms, such as nausea, vomiting, and being extra-sensitive to light and sound. A 400 milligram (mg) dose of ibuprofen worked better than a 200 mg dose.

Eletriptan

In this section

[Does it work?](#)

[What is it?](#)

[How can it help?](#)

[How does it work?](#)

[Can it be harmful?](#)

[How good is the research on eletriptan?](#)

This information is for adults who get migraines. It tells you about eletriptan, a treatment used for migraines. It is based on the best and most up-to-date research.

Migraine in adults

Does it work?

Yes, eletriptan will help if you have a migraine attack. A dose of 40 milligrams (mg) helps 6 in 10 people who take it. Even if your headache is very bad, eletriptan should make it either go away completely or make it much more manageable.

Studies suggest that a dose of 40 mg works best. With a higher dose you have more chance of side effects.

Some research has found that eletriptan works better than a similar drug called [sumatriptan](#) .

What is it?

Eletriptan is a type of drug known as a triptan. It works in a similar way to a chemical in your brain called serotonin. Like serotonin, eletriptan makes the blood vessels in your brain narrower. This can stop your brain feeling the pain of an attack, at least partly.

The brand name for eletriptan is Relpax.

How can it help?

Eletriptan can make your migraine pain better within two hours. ^[41]

- Your headache should get milder or go away completely.
- All doses give some improvement, but doses of 40 mg and 80 mg work better than doses of 20 mg.
- A 40 mg dose gives you a 6 in 10 chance of your headache getting better in two hours. With an 80 mg dose, your chances are a little better but you run a higher risk of side effects.
- Eletriptan may also help you feel less queasy and help you get back to your normal activities. ^[42]
- After taking eletriptan, you have a good chance of your headache not coming back within 24 hours.

A study looking at the triptans available in 2007 found that they all helped to get rid of the pain from a migraine within two hours, or make it much milder, compared with a dummy drug (a [placebo](#)). But only sumatriptan and rizatriptan worked better than a placebo drug within half an hour. ^[43]

If given two hours to work, higher doses of eletriptan may work better than sumatriptan. ^[41] ^[42] ^[44]

Migraine in adults

How does it work?

Like other triptans, eletriptan acts like a chemical in your brain called serotonin. Serotonin is a **neurotransmitter**, which is a chemical that sends (or 'transmits') signals between nerve cells. Serotonin binds to your cells at specific sites called serotonin receptors, rather like a key being put into a lock.

Eletriptan helps to treat migraine attacks in three main ways.

- When you have an attack, the blood vessels in your brain open up (dilate). This means there is more blood flowing through them. Researchers think this is what causes the pain of attacks. Eletriptan corrects the changes in blood flow and makes the blood vessels narrower.
- It also blocks nerves from releasing chemicals that cause blood vessels in the brain to open up.
- And it blocks the release of chemicals that carry pain messages between different parts of the brain.

All three effects work together to help you feel better.

Can it be harmful?

All triptans can have side effects, although they are usually mild and do not last long.^[41]

- The most common side effects are pins and needles and feelings of warmth in different parts of the body.
- Less common are feeling dizzy or flushed or getting neck pain and stiffness.
- You can get more worrying side effects like feeling confused and drowsy, but these are far less common.
- Some people get chest pain or tightness, but this is not very common.

Higher doses of eletriptan (40 mg and 80 mg) are more likely to give you side effects than the lowest dose (20 mg). In fact studies show that the lowest dose seems to have no greater risk of side effects than a dummy treatment (a **placebo**).^[41]

But it's not clear from the research what proportion of people get side effects. Different studies say different things. And in many studies, people taking a placebo also got side effects.

For example, one large study found that about one-third of people taking eletriptan got side effects, but one-third of people taking a placebo got side effects too.^[42] So it may not always be eletriptan that is causing the side effects.

Migraine in adults

Here's what other studies have found:

- About 7 in 100 people taking 40 mg felt drowsy ^[45]
- About 3 in 100 to 4 in 100 people taking 40 mg got pins and needles ^[45]
- About 5 in 100 people taking 40 mg got dizzy ^[45]
- About 4 in 100 people taking 40 mg and 5 in 100 taking 80 mg got chest symptoms. (No one taking a placebo got this side effect.) ^[46]

If you have heart disease, you should not take this medicine. It can make your blood vessels narrower and your heart disease worse. If you have risk factors for heart disease, like **high blood pressure**, your doctor might want you to take some heart tests before using this medicine to see if it is safe for you. ^[47]

Triptans and antidepressants

If you take eletriptan (or any other triptan) together with medicines called selective serotonin reuptake inhibitors (SSRIs) or selective serotonin-noradrenaline reuptake inhibitors (SNRIs), there's a chance you could get a condition called **serotonin syndrome**. ^[48] SSRIs and SNRIs are antidepressant drugs. They are treatments for depression and other, similar illnesses. (SNRIs are sometimes called selective serotonin-norepinephrine reuptake inhibitors.)

Serotonin syndrome happens when you get too much serotonin in your body. It can be fatal. All SSRIs and SNRIs increase the amount of serotonin in the body. Names (and brand names) of SSRIs and SNRIs include:

- citalopram (Cipramil)
- duloxetine (Cymbalta)
- escitalopram (Cipralext)
- fluvoxamine (Faverin)
- fluoxetine (Prozac)
- paroxetine (Seroxat)
- sertraline (Lustral)
- venlafaxine (Effexor).

Migraine in adults

The symptoms of serotonin syndrome are:

- Feeling restless
- Rapid changes in blood pressure (you may not notice anything when this happens)
- A rise in your body temperature
- Feeling jittery
- Feeling like you might be sick
- Vomiting
- Diarrhoea.

The chances of getting serotonin syndrome are highest when you start treatment with one of these medicines in addition to one you're already taking, or the dose of one of them is increased.

If you get any of the above symptoms you should see your doctor or go to an emergency department straight away.

How good is the research on eletriptan?

The evidence that eletriptan works for migraine attacks is good. We found a big summary of the evidence (known as a [systematic review](#)) and six further studies (which were [randomised controlled trials](#)). ^[41] ^[42] ^[44] ^[45] ^[46] ^[49] ^[50]

The summary included 10 studies of eletriptan. These were all high-quality studies. Some of the studies compared eletriptan with a dummy treatment (a [placebo](#)). Eletriptan is better than a placebo at relieving pain and getting rid of migraines. ^[41] Higher doses worked for more people, but were more likely to cause side effects. ^[41]

Studies have also compared eletriptan with other migraine drugs. Here is a summary of what we found.

- Higher doses of eletriptan worked better than [sumatriptan](#). ^[41] ^[42] ^[44]
- Eletriptan worked better than a drug called ergotamine, which is usually given with caffeine. ^[41]

One big summary of the research (a systematic review) looked at the triptan drugs available in 2007. Researchers looked at 221 studies in total and selected 38 good-quality studies. They said all triptans worked better than a dummy drug (a placebo) to reduce

Migraine in adults

pain or get rid of migraines within two hours. But only sumatriptan and rizatriptan worked better than a placebo drug within half an hour. ^[43]

Naratriptan

In this section

[Does it work?](#)

[What is it?](#)

[How can it help?](#)

[How does it work?](#)

[Can it be harmful?](#)

[How good is the research on naratriptan?](#)

This information is for adults who get migraines. It tells you about naratriptan, a treatment used for migraines. It is based on the best and most up-to-date research.

Does it work?

Yes. Naratriptan will help if you have a migraine attack. It helps as many as two-thirds of the people who take it. ^[51] It can also decrease your chances of needing to take other painkillers, and it can stop your headache coming back within 24 hours.

Naratriptan seems to have fewer side effects than similar drugs such as [sumatriptan](#) .

What is it?

Naratriptan is a type of drug known as a triptan. It works in a way that is similar to a chemical in your brain called serotonin. Like serotonin, naratriptan makes the blood vessels in your brain narrower. And this can stop your brain feeling the pain from an attack, at least partly.

The brand name is Naramig.

How can it help?

There is good evidence that naratriptan can help get rid of a migraine attack. ^{[51] [41] [52]}

- Naratriptan can make a migraine attack better within two hours to four hours. It does this for as many as 2 in 3 people who take it. ^[51]
- Even if your attack is very bad, naratriptan will probably make it milder and more manageable.
- If you take naratriptan, your migraine attack is less likely to come back within 24 hours, and you may not need to take any other painkillers. Naratriptan can also help with other symptoms, including nausea and being extra-sensitive to lights or sounds.
- The dose used in the studies was usually 2.5 milligrams.

Migraine in adults

If you've already tried sumatriptan and found that it didn't help, one study has suggested that naratriptan might work for you instead. ^[52]

A study looking at the triptans available in 2007 found that they all helped to get rid of the pain from a migraine within two hours, or make it much milder, compared with a dummy drug (a placebo). But only sumatriptan and rizatriptan worked better than a placebo drug within half an hour. ^[43]

How does it work?

Like other triptans, naratriptan acts like a chemical in your brain called serotonin. It binds to your cells at specific sites called serotonin receptors, rather like a key being put into a lock.

Naratriptan helps to treat migraine attacks in three main ways.

- When you have an attack, the blood vessels in your brain open up (dilate). This means there is more blood flowing through them. Researchers think this is what causes the pain of attacks. Naratriptan corrects the changes in blood flow and makes the blood vessels narrower.
- Secondly, it blocks nerves from releasing chemicals that cause blood vessels in your brain to open up.
- Thirdly, it blocks the release of chemicals that carry pain messages between different parts of your brain.

All of these effects work together to help you feel better.

Can it be harmful?

All triptans can have side effects, although they are usually mild and do not last long. ^[41]

- The most common side effects are pins and needles and feelings of warmth in different parts of the body.
- Less common are feeling dizzy or flushed or getting neck pain and stiffness.
- You can get more worrying side effects like feeling confused and drowsy, but these are far less common.
- Some people get chest pain or tightness, but this is not very common.

However, most studies of naratriptan have found that people taking a dummy treatment for comparison (a placebo) have the same rate of side effects as people taking the drug. ^[41] So it's not certain that naratriptan is the cause of these side effects.

Migraine in adults

In one study that looked at 643 patients, no one stopped taking naratriptan because of side effects. ^[51]

Other studies have found that naratriptan has fewer side effects than sumatriptan or [zolmitriptan](#). ^[41]

If you have heart disease, you should not take this medicine. It can make your blood vessels narrower and your heart disease worse. If you have risk factors for heart disease, like **high blood pressure**, your doctor might want you to take some heart tests before using this medicine to see if it is safe for you. ^[47]

Triptans and antidepressants

If you take naratriptan (or any other triptan) together with medicines called selective serotonin reuptake inhibitors (SSRIs) or selective serotonin-noradrenaline reuptake inhibitors (SNRIs), there's a chance you could get a condition called **serotonin syndrome**. ^[48] SSRIs and SNRIs are antidepressant drugs. They are treatments for depression and other, similar illnesses. (SNRIs are sometimes called selective serotonin-norepinephrine reuptake inhibitors.)

Serotonin syndrome happens when you get too much serotonin in your body. It can be fatal. All SSRIs and SNRIs increase the amount of serotonin in the body. Names (and brand names) of SSRIs and SNRIs include:

- citalopram (Cipramil)
- duloxetine (Cymbalta)
- escitalopram (Cipralex)
- fluvoxamine (Faverin)
- fluoxetine (Prozac)
- paroxetine (Seroxat)
- sertraline (Lustral)
- venlafaxine (Effexor).

The symptoms of serotonin syndrome are:

- Feeling restless
- Rapid changes in blood pressure (you may not notice anything when this happens)
- A rise in your body temperature

Migraine in adults

- Feeling jittery
- Feeling like you might be sick
- Vomiting
- Diarrhoea.

The chances of getting serotonin syndrome are highest when you start treatment with one of these medicines in addition to one you're already taking, or the dose of one of them is increased.

If you get any of the above symptoms you should see your doctor or go to an emergency department straight away.

How good is the research on naratriptan?

There is good evidence that naratriptan can help if you have a migraine attack. We found one large summary of the research called a [systematic review](#).^[41] We also found a further three high-quality studies (known as [randomised controlled trials](#) or RCTs).^[51]
[\[52\]](#) [\[53\]](#)

The review included eight studies of naratriptan that included a total of 1,736 people with migraine. Some of the studies we looked at compared naratriptan with a dummy treatment given as a comparison (a [placebo](#)).

Here's a summary of what we found.

- Naratriptan works better than a placebo drug within two hours of taking it. It reduced pain or got rid of it altogether.^[41]
- Almost 2 in 3 people get better within four hours of treatment.^[51]

Other studies compared naratriptan with other triptan drugs. Naratriptan didn't work as well as sumatriptan or rizatriptan.^[41]

One big summary of the research (a systematic review) looked at the triptan drugs available in 2007. Researchers looked at 221 studies in total and selected 38 good-quality studies. They said all triptans worked better than a dummy drug (a placebo) to reduce pain or get rid of migraines within two hours. But only sumatriptan and rizatriptan worked better than a placebo drug within half an hour.^[43]

Rizatriptan

In this section
[Does it work?](#)

Migraine in adults

[What is it?](#)

[How can it help?](#)

[How does it work?](#)

[Can it be harmful?](#)

[How good is the research on rizatriptan?](#)

This information is for adults who get migraines. It tells you about rizatriptan, a treatment used for migraines. It is based on the best and most up-to-date research.

Does it work?

Yes. Rizatriptan can make you feel better. About 7 in 10 people find their symptoms improve when they take rizatriptan.^[41] Even if your headache is very bad, taking rizatriptan should make the pain milder and more bearable. It may also make you less likely to get another attack within 24 hours.

Rizatriptan also helps with the nausea and vomiting some people get with a migraine attack.

What is it?

Rizatriptan is a type of drug known as a triptan. It works in a way that is similar to a chemical in your brain called serotonin. Like serotonin, triptans make the blood vessels in your brain narrower. And this can stop your brain feeling the pain of an attack, at least partly.

The brand name is Maxalt. It comes as tablets, and also as wafers that dissolve in your mouth.

How can it help?

Rizatriptan can help you get rid of a migraine attack within two hours.^{[41] [54] [55]}

- This medicine should make your attack better even if your pain is very bad.
- It helps 6 in 10 to 7 in 10 people who take it.
- Rizatriptan can also help if your attack makes you feel extra-sensitive to lights and noise. And 1 in 2 people who take it will be able to get back to their normal routine within two to four hours.
- Taking rizatriptan can also mean you'll be less likely to need other painkillers or that your attack will come back within 24 hours.
- Rizatriptan can also relieve symptoms like nausea and vomiting.
- Taking the higher dose of 10 milligrams (mg) seems to work a bit better than taking a dose of 5 mg.

Migraine in adults

A study looking at the triptans available in 2007 found that they all helped to get rid of the pain from a migraine within two hours, or make it much milder, compared with a dummy drug (a [placebo](#)). But only sumatriptan and rizatriptan worked better than a placebo drug within half an hour. ^[43]

How does it work?

Like other triptans, rizatriptan acts like a chemical in your brain called serotonin. It binds to your cells at specific sites called serotonin receptors, rather like a key being put into a lock.

Rizatriptan helps to treat migraine attacks in three main ways.

- When you have an attack, the blood vessels in your brain open up (dilate). This means there is more blood flowing through them. Researchers think this is what causes the pain. Rizatriptan corrects the changes in blood flow and makes your blood vessels narrower.
- Secondly, it blocks nerves from releasing chemicals that cause blood vessels in the brain to open up.
- Thirdly, it blocks the release of chemicals that carry pain messages between different parts of the brain.

All of these effects work together to help you feel better.

Can it be harmful?

Like all triptan drugs, rizatriptan can have side effects, although they are usually mild and do not last long. ^[41]

- The most common side effects are pins and needles and feelings of warmth in different parts of your body.
- This medicine can also make you feel dizzy or flushed or get neck pain and stiffness.
- You can get more worrying side effects like feeling confused and drowsy, but these are less common.
- Some people get chest pain or tightness, but this is not very common.

If you take a higher dose of rizatriptan, you are a bit more likely to get side effects than if you take a lower dose. With the 10 mg dose, for example, there is a higher chance of getting chest symptoms and drowsiness than with the 5 mg dose. ^[41]

Also the 10 mg dose of rizatriptan causes more side effects than another triptan drug called [naratriptan](#). ^[41]

Migraine in adults

But it's not clear from the research what proportion of people get side effects. Different studies say different things. And in many studies, people taking a dummy treatment (a placebo) also got side effects. So it may not always be rizatriptan that is causing the problems.

One study we looked at found that more than one-third of people taking 10 mg of rizatriptan got side effects.^[55] The most common ones were:

- Dizziness (about 7 in 100 people got this)
- Nausea (more than 4 in 100 people got this)
- Drowsiness (about 5 in 100 people got this).

Another study found that 2 in 100 people taking 10 mg of rizatriptan got chest pain (compared with 1 in 100 taking a placebo) and 5 in 100 felt low on energy.^[54]

If you have heart disease, you should not take this medicine. It can make your blood vessels narrower and your heart disease worse. If you have risk factors for heart disease, like high blood pressure, your doctor might want you to take some heart tests before using this medicine to see if it is safe for you.^[47]

Triptans and antidepressants

If you take rizatriptan (or any other triptan) together with medicines called selective serotonin reuptake inhibitors (SSRIs) or selective serotonin-noradrenaline reuptake inhibitors (SNRIs), there's a chance you could get a condition called **serotonin syndrome**.^[48] SSRIs and SNRIs are antidepressant drugs. They are treatments for depression and other, similar illnesses. (SNRIs are sometimes called selective serotonin-norepinephrine reuptake inhibitors.)

Serotonin syndrome happens when you get too much serotonin in your body. It can be fatal. All SSRIs and SNRIs increase the amount of serotonin in the body. Names (and brand names) of SSRIs and SNRIs include:

- citalopram (Cipramil)
- duloxetine (Cymbalta)
- escitalopram (Cipralext)
- fluvoxamine (Faverin)
- fluoxetine (Prozac)
- paroxetine (Seroxat)

Migraine in adults

- sertraline (Lustral)
- venlafaxine (Effexor).

The symptoms of serotonin syndrome are:

- Feeling restless
- Rapid changes in blood pressure (you may not notice anything when this happens)
- A rise in your body temperature
- Feeling jittery
- Feeling like you might be sick
- Vomiting
- Diarrhoea.

The chances of getting serotonin syndrome are highest when you start treatment with one of these medicines in addition to one you're already taking, or the dose of one of them is increased.

If you get any of the above symptoms you should see your doctor or go to an emergency department straight away.

How good is the research on rizatriptan?

There is good evidence that rizatriptan works for treating migraine attacks. We found one big summary of the evidence (known as a **systematic review**).^[41] We also found two other high-quality studies called **randomised controlled trials** (RCTs).^{[54] [55] [56]}

The review included 12 studies of rizatriptan involving nearly 6,400 people. These were all high-quality studies. Some people in the studies took rizatriptan and some took a dummy treatment for comparison (called a **placebo**).

Here are more details about what we found:

- Rizatriptan works better than a dummy drug (a placebo) within 2 hours of taking it. It makes people's pain better or gets rid of it altogether.^[41]
- About 7 in 10 people who took rizatriptan found their migraine pain got better, compared with 3 in 10 who took a placebo.^[54]

In other studies, people took either rizatriptan or another drug treatment for migraine.

Migraine in adults

- Rizatriptan worked better than a drug called naratriptan and about the same as a drug called zolmitriptan. ^[41] ^[54]
- Rizatriptan worked better than a drug called ergotimine, combined with caffeine. ^[55]

One big summary of the research (a systematic review) looked at the triptan drugs available in 2007. Researchers looked at 221 studies in total and selected 38 good-quality studies. They said all triptans worked better than a dummy drug (a placebo) to reduce pain or get rid of migraines within two hours. But only sumatriptan and rizatriptan worked better than a placebo drug within half an hour. ^[43]

Sumatriptan

In this section

[Does it work?](#)

[What is it?](#)

[How can it help?](#)

[How does it work?](#)

[Can it be harmful?](#)

[How good is the research on sumatriptan?](#)

This information is for adults who get migraines. It tells you about sumatriptan, a treatment used for migraines. It is based on the best and most up-to-date research.

Does it work?

Yes. Sumatriptan will probably help if you have a migraine attack. Even if your attack is very bad, sumatriptan should make the pain more bearable. It works whether you take it as a pill, an injection under your skin, or a nasal spray.

Sumatriptan makes some people's migraines go away completely. It can also help with other symptoms of a migraine, including nausea, vomiting, and being unable to bear light or sound.

However, some research has found that sumatriptan may not work any better for migraine than [aspirin](#). ^[24]

What is it?

Sumatriptan is a type of drug known as a triptan. It works in a similar way to a chemical in your brain called serotonin. Like serotonin, sumatriptan makes the blood vessels in your brain narrower. And this can stop the pain of an attack, at least partly.

Sumatriptan was the first triptan to be developed to treat migraine.

There are different ways to take sumatriptan. You may:

- Inject it under your skin
- Take it as a tablet

Migraine in adults

- Spray it into your nose and breathe it in.

You can buy sumatriptan tablets yourself from a pharmacy. The brand name is Imigran Recovery.

How can it help?

Sumatriptan works well for migraine. It usually works within one hour or two hours. ^[41]
^[57] ^[58] ^[59]

- About 3 in 10 people with migraine had no pain two hours after taking sumatriptan compared with 1 in 10 people who take a dummy pill (placebo). ^[59]
- About 6 in 10 people with migraine have only mild pain two hours after taking sumatriptan compared with 3 in 10 people who take a dummy pill (placebo). ^[59]
- Injections, pills, and nasal spray all work equally well. ^[57]
- Sumatriptan may also help with other symptoms of an attack, including nausea and vomiting, and being extra-sensitive to light or sound. ^[42] It is likely to help you get back to your usual routine.
- Injected sumatriptan can help people who have frequent migraine attacks. A study of 246 patients who had one to six attacks per month found that using injected sumatriptan made nearly 8 in every 10 attacks better. It made the pain go away completely or almost completely. ^[58]

A study looking at the triptans available in 2007 found that they all helped to get rid of the pain from a migraine within two hours, or make it much milder, compared with a dummy drug (a placebo). But only sumatriptan and rizatriptan worked better than a placebo drug within half an hour. ^[43]

How does it work?

Like other triptans, sumatriptan acts like a chemical in your brain called serotonin. It binds to your cells at specific sites called serotonin receptors, rather like a key being put into a lock.

Sumatriptan helps to treat migraine in these ways.

- When you have a migraine attack, the blood vessels in your brain open up (dilate). This means there is more blood flowing through them. Researchers think this is what causes the pain of migraine attacks. Sumatriptan corrects the changes in blood flow and makes your blood vessels narrower.

Migraine in adults

- It also blocks the release of chemicals that carry pain messages between different parts of your brain.

These effects work together to help you feel better.

Can it be harmful?

Like all triptan drugs, sumatriptan can have side effects, although they are usually mild and do not last long. ^[41]

- The most common side effects are pins and needles and feelings of warmth in different parts of the body.
- This medicine can also make you feel dizzy or flushed or get neck pain and stiffness.
- You can get more worrying side effects like feeling confused and drowsy, but these are less common.
- Some people get chest pain or tightness, but this is not very common.

But it's not clear from the research what proportion of people get side effects. Different studies say different things.

The research we looked at found the following.

- About 6 in 10 to 7 in 10 people who used injected sumatriptan got side effects. About 3 in 10 people taking a dummy treatment (a placebo) also got side effects. ^[57]
- All doses of sumatriptan increase the risk of side effects. But the higher the dose, the higher the risk. ^[41]
- With sumatriptan doses of 50 mg and 100 mg, there is a risk of more serious side effects, such as chest symptoms and symptoms affecting your nervous system (drowsiness, for example). ^[41]

If you have heart disease, you should not take this medicine. It can make your blood vessels narrower and your heart disease worse. If you have risk factors for heart disease, like high blood pressure, your doctor might want you to take some heart tests before using this medicine to see if it is safe for you. ^[47]

You should also not take sumatriptan at the same time as [ergotamine](#), which is another type of drug used to treat migraine. ^[47]

Migraine in adults

Triptans and antidepressants

If you take sumatriptan (or any other triptan) together with medicines called selective serotonin reuptake inhibitors (SSRIs) or selective serotonin-noradrenaline reuptake inhibitors (SNRIs), there's a chance you could get a condition called **serotonin syndrome**.

^[48] SSRIs and SNRIs are antidepressant drugs. They are treatments for depression and other, similar illnesses. (SNRIs are sometimes called selective serotonin-norepinephrine reuptake inhibitors.)

Serotonin syndrome happens when you get too much serotonin in your body. It can be fatal. All SSRIs and SNRIs increase the amount of serotonin in the body. Names (and brand names) of SSRIs and SNRIs include:

- citalopram (Cipramil)
- duloxetine (Cymbalta)
- escitalopram (Cipralex)
- fluvoxamine (Faverin)
- fluoxetine (Prozac)
- paroxetine (Seroxat)
- sertraline (Lustral)
- venlafaxine (Effexor).

The symptoms of serotonin syndrome are:

- Feeling restless
- Rapid changes in blood pressure (you may not notice anything when this happens)
- A rise in your body temperature
- Feeling jittery
- Feeling like you might be sick
- Vomiting
- Diarrhoea.

Migraine in adults

The chances of getting serotonin syndrome are highest when you start treatment with one of these medicines in addition to one you're already taking, or the dose of one of them is increased.

If you get any of the above symptoms you should see your doctor or go to an emergency department straight away.

How good is the research on sumatriptan?

There is a lot of good evidence about sumatriptan. We found three big summaries of the evidence (known as [systematic reviews](#)).^[41] ^[57] ^[59] We also found several other good-quality studies (called [randomised controlled trials](#)).

The research shows that all forms of sumatriptan (for example, tablets, nasal sprays and injections) work better at treating migraine attacks than a dummy treatment (a placebo).^[41] ^[57] The different ways of taking sumatriptan all seem to work about as well as each other.

Some studies have compared sumatriptan with other medicines for migraine.

- Sumatriptan doesn't work for as many people as another triptan called eletriptan.^[41]
^[42] ^[44]
- Sumatriptan works about the same as zolmitriptan.^[60]
- Sumatriptan works better than a drug called ergotamine combined with caffeine.^[61]
- One study showed that aspirin combined with a drug to stop you feeling sick (metoclopramide) seems to work as well as sumatriptan.^[24]

One big summary of the research (a systematic review) looked at the triptan drugs available in 2007. Researchers looked at 221 studies in total and selected 38 good-quality studies. They said all triptans worked better than a dummy drug (a placebo) to reduce pain or get rid of migraines within two hours. But only sumatriptan and rizatriptan worked better than a placebo drug within half an hour.^[43]

Zolmitriptan

In this section

[Does it work?](#)

[What is it?](#)

[How can it help?](#)

[How does it work?](#)

[Can it be harmful?](#)

[How good is the research on zolmitriptan?](#)

This information is for adults who get migraines. It tells you about zolmitriptan, a treatment used for migraines. It is based on the best and most up-to-date research.

Migraine in adults

Does it work?

Yes. Zolmitriptan should make your migraine attack better. If your attack is severe, it may make it more bearable. It may also help with other symptoms, including nausea, vomiting, and feeling extra-sensitive to lights or sounds.

Studies show that zolmitriptan seems to work as well as another similar drug called [sumatriptan](#) .

What is it?

Zolmitriptan is a type of drug known as a triptan. It works in a similar way to a chemical in your brain called serotonin. Like serotonin, zolmitriptan makes the blood vessels in your brain narrower. And this can stop the pain of migraine, at least partly.

The brand name for zolmitriptan is Zomig. It comes as tablets, as a nasal spray, and also as special tablets that dissolve when you put them in your mouth.

How can it help?

Zolmitriptan can make migraine headaches better within two hours. ^[41] ^[62] ^[63] ^[64]

- After using zolmitriptan, 6 in 10 people find that their migraine pain is mild or has gone away completely. ^[41]
- You should be able to get back to your usual routine after using this drug.
- Taking zolmitriptan also makes it less likely that you will need to take other painkillers. (One-third of people who take this drug will need to take more medicine compared with two-thirds who don't take anything).
- Zolmitriptan helps with other symptoms of migraine attacks, including nausea and being unable to bear light and noise. ^[63]
- A zolmitriptan pill that dissolves on the tongue works well for many people. ^[63]

Zolmitriptan is often given in doses of 2.5 milligrams (mg) or 5 mg. Research has shown that both doses work well. ^[41]

Some evidence says that zolmitriptan seems to work as well as [sumatriptan](#) , [aspirin](#) , and [naratriptan](#) . ^[41] ^[65] ^[60]

A study looking at the triptans available in 2007 found that they all helped to get rid of the pain from a migraine within two hours, or make it much milder, compared with a dummy drug (placebo). But only sumatriptan and rizatriptan worked better than a placebo drug within half an hour. ^[43]

Migraine in adults

How does it work?

Like other triptans, zolmitriptan acts like a chemical in your brain called serotonin. It binds to your cells at specific sites called serotonin receptors, rather like a key being put into a lock.

Zolmitriptan helps to treat migraine in three main ways.

- When you have an attack, the blood vessels in your brain open up (dilate). This means there is more blood flowing through them. Researchers think this is what causes the pain when you have a migraine. Zolmitriptan corrects the changes in blood flow and makes the blood vessels narrower.
- Secondly, it blocks nerves from releasing chemicals that cause blood vessels in your brain to open up.
- Thirdly, it blocks the release of chemicals that carry pain messages between different parts of your brain.

All of these effects work together to help you feel better.

Can it be harmful?

Like all triptan drugs, zolmitriptan can have side effects, although they are usually mild and do not last long. ^[41] ^[59]

- The most common side effects are pins and needles and feelings of warmth in different parts of the body.
- This medicine can also make you feel dizzy or flushed or get neck pain and stiffness.
- You can get more worrying side effects like feeling confused and drowsy, but these are less common.
- Some people get chest pain or tightness, but this is not very common.

The higher the dose of zolmitriptan you take, the more likely you are to get more serious side effects.

It's not clear from the research what proportion of people get side effects. Different studies say different things. And in many studies, people taking a dummy treatment for comparison (a placebo) also got side effects. So it may not always be zolmitriptan that is causing the side effects.

Here are the side effects that have been reported by people taking zolmitriptan in studies.

- Feeling weak (asthenia): 7 in 100 people who took 5 mg of zolmitriptan got this. ^[62]

Migraine in adults

- Loss of sensation: 7 in 100 people who took 5 mg got this. ^[62]
- Pain in the abdomen: 7 in 100 people who took 5 mg got this. ^[62]
- Feeling tightness in the throat: between 2 in 100 and 3 in 100 people who took 2.5 mg got this. ^[63]
- Feeling drowsy: 3 in 100 people who took 2.5 mg felt this. ^[63]

The good news is that not many people seem to stop taking zolmitriptan because of side effects. In one study, less than 1 in 100 people taking zolmitriptan withdrew because of the side effects. ^[66]

If you have heart disease, you should not take this medicine. It can make your blood vessels narrower and your heart disease worse. If you have risk factors for heart disease, like high blood pressure, your doctor might want you to take some heart tests before using this medicine to see if it is safe for you. ^[47]

Triptans and antidepressants

If you take zolmitriptan (or any other triptan) together with medicines called selective serotonin reuptake inhibitors (SSRIs) or selective serotonin-noradrenaline reuptake inhibitors (SNRIs), there's a chance you could get a condition called **serotonin syndrome**. ^[48] SSRIs and SNRIs are antidepressant drugs. They are treatments for depression and other, similar illnesses. (SNRIs are sometimes called selective serotonin-norepinephrine reuptake inhibitors.)

Serotonin syndrome happens when you get too much serotonin in your body. It can be fatal. All SSRIs and SNRIs increase the amount of serotonin in the body. Names (and brand names) of SSRIs and SNRIs include:

- citalopram (Cipramil)
- duloxetine (Cymbalta)
- escitalopram (Cipralext)
- fluvoxamine (Faverin)
- fluoxetine (Prozac)
- paroxetine (Seroxat)
- sertraline (Lustral)

Migraine in adults

- venlafaxine (Effexor).

The symptoms of serotonin syndrome are:

- Feeling restless
- Rapid changes in blood pressure (you may not notice anything when this happens)
- A rise in your body temperature
- Feeling jittery
- Feeling like you might be sick
- Vomiting
- Diarrhoea.

The chances of getting serotonin syndrome are highest when you start treatment with one of these medicines in addition to one you're already taking, or the dose of one of them is increased.

If you get any of the above symptoms you should see your doctor or go to an emergency department straight away.

How good is the research on zolmitriptan?

There is good evidence that zolmitriptan can help your migraine symptoms.

We found two big summaries of the evidence (known as a [systematic review](#)). [\[41\]](#) [\[59\]](#)
We also found several other large, well-run studies. [\[62\]](#) [\[67\]](#)

Here is a summary of what the research found about zolmitriptan. [\[41\]](#) [\[59\]](#)

- Zolmitriptan relieved migraine headaches within two hours.
- Symptoms became milder or the pain disappeared completely.
- Three in 10 people who took a zolmitriptan tablet (2.5 milligrams [mg]) had no pain at all after two hours compared with 1 in 10 people who took a [placebo](#).
- Six in 10 people who took a zolmitriptan tablet (2.5 mg) had only mild pain after two hours compared with 3 in 10 people who took a placebo.
- Higher doses seem to work better than lower doses, but higher doses are more likely to cause side effects.

Migraine in adults

- The 5 mg nasal spray is better at relieving pain after one hour than the 5 mg tablet.

In other studies, some people took zolmitriptan and other people took another drug for migraine called [sumatriptan](#) . Zolmitriptan worked about as well as sumatriptan. ^[59]

One big summary of the research (a systematic review) looked at the triptan drugs available in 2007. Researchers looked at 221 studies in total and selected 38 good-quality studies. They said all triptans worked better than a dummy drug (a placebo) to reduce pain or get rid of migraines within two hours. But only sumatriptan and rizatriptan worked better than a placebo drug within half an hour. ^[43]

Diclofenac

In this section

[Does it work?](#)

[What is it?](#)

[How can it help?](#)

[How does it work?](#)

[Can it be harmful?](#)

[How good is the research on diclofenac?](#)

This information is for adults who get migraines. It tells you about diclofenac, a treatment used for migraines. It is based on the best and most up-to-date research.

Does it work?

If you have a migraine headache, you are more likely to feel better if you take diclofenac than if you don't take any medicine at all. And diclofenac may make your headache go away completely.

What is it?

Diclofenac is a type of painkiller called a **nonsteroidal anti-inflammatory drug** (NSAID). It's similar to ibuprofen.

You usually take diclofenac as a tablet. The brand names are Voltarol and Diclomax. You can also get a low-dose tablet without a prescription (Voltarol Pain-eze Tablets). Studies have also looked at injections of diclofenac.

How can it help?

Diclofenac can make a migraine attack less severe and may make it go away completely. It can also shorten an attack.

Here is what the research found.

- One study found that diclofenac gave headache relief to more than 3 in 10 people taking 50 milligrams (mg) and about 4 in 10 people taking 100 mg. ^[68]

Migraine in adults

- Another study found that diclofenac made migraine headaches bearable or made headaches last for less than two hours in 2 in 10 to 3 in 10 people who took it. ^[69]
- Of the people in the above studies who took a dummy treatment (a placebo), about 2 in 10 had the same improvement in their symptoms. ^[68] ^[69]
- If you take diclofenac, you are less likely to need to take other painkillers for your headache.
- Diclofenac injections can reduce headache pain quite quickly. In some people they work within 35 minutes. ^[70] More than 4 in 10 people who have injections find their migraine symptoms get better within one hour. ^[71]
- Diclofenac injections can also help if you have migraine with aura. One study found it relieved headaches for 5 in 10 people who had migraines with auras. ^[71] (To learn more about migraines with auras, see [What are migraines?](#))
- Diclofenac may also relieve other symptoms of an attack, such as being extra-sensitive to light or sound. It may also help you get back to your normal routine faster.

How does it work?

Like other NSAIDs, diclofenac works by stopping your body making chemicals called prostaglandins. Your body makes these chemicals when you are in pain or injured. Prostaglandins cause inflammation and make you more sensitive to pain. By stopping the prostaglandins, diclofenac can help you feel better.

Can it be harmful?

Diclofenac may increase the risk of having a stroke or heart attack. There are likely to be three extra heart attacks or strokes every year for every 1,000 people taking high daily doses of diclofenac. ^[39]

Because of this, the body that regulates medicines in the UK to make sure that they work and that they are safe, the Medicines and Healthcare products Regulatory Agency (MHRA), has issued a warning about diclofenac. ^[39] The MHRA says that people should not take diclofenac if they have serious heart conditions, such as heart failure, heart disease, or circulatory problems, or if they have ever had a heart attack or stroke.

Another drawback of diclofenac and other NSAIDs is that they can irritate the lining of your stomach. This may cause stomach ulcers or bleeding in your stomach. It's usually best not to take NSAIDs if you have a stomach ulcer or if you've had one in the past.

Migraine in adults

About 1 in 3 people who take diclofenac for migraine have side effects, including stomach pain and tiredness.^[72] In the studies we looked at, most people rated these problems as mild or moderate. But 1 in 8 people rated their side effects as severe.^{[69] [72]}

In one study of 170 people, stomach problems were the most common side effect of diclofenac.^[69] But only three people withdrew from the study or stopped taking the drug because of this.

You should not take diclofenac if you are in the last three months of pregnancy.

You should not take diclofenac if you are allergic to this drug, or to [aspirin](#) or other NSAIDs (such as [ibuprofen](#)).

You should also be cautious about taking diclofenac if you have:

- High blood pressure
- Liver or kidney problems.

If you have any of these conditions, check with your doctor before taking this medication.

Diclofenac can interact with a wide range of other medicines, including blood-pressure drugs such as ACE inhibitors and diuretics (water pills), as well as blood thinners (anticoagulants) and corticosteroids. If you are taking prescription medicines, check with your doctor before you take diclofenac.

NSAIDs can also make asthma worse.^[32]

Guidelines for doctors on NSAIDs also say that if you need an NSAID you should:

- Start on the lowest recommended dose
- Not use more than one NSAID at a time.

Taking high doses of NSAIDs every day for a long time may increase your risk of a heart attack or a stroke. This is unlikely to be a problem with the doses you take for a migraine. But if you'd like to read more, see [Warnings about side effects of NSAIDs](#).

How good is the research on diclofenac?

There is good evidence that diclofenac can help if you have a migraine headache.

We found one large summary of the research called a systematic review.^[73] We also found five studies that looked at a small number of people.^{[68] [69] [70] [71] [72]} The studies found that:

- Diclofenac tablets relieved headaches better than a placebo

Migraine in adults

- An injection of diclofenac relieved headaches within an hour and reduced the need to take other painkillers.

One study also compared diclofenac with another drug treatment called [sumatriptan](#) .^[72] There was little difference between diclofenac and sumatriptan.

However, there were some problems with the way some of these studies were carried out. They used different methods to see whether people's headaches got better, so it isn't easy to compare their results with results from studies that looked at other medicines.

Naproxen

In this section

[Does it work?](#)

[What is it?](#)

[How can it help?](#)

[How does it work?](#)

[Can it be harmful?](#)

[How good is the research on naproxen?](#)

This information is for adults who get migraines. It tells you about naproxen, a treatment used for migraines. It is based on the best and most up-to-date research.

Does it work?

If you take naproxen, your migraine attack may get better. However, other treatments are more likely to help.

What is it?

Naproxen is a type of painkiller called a **nonsteroidal anti-inflammatory drug** (NSAID). It's similar to ibuprofen. It is sometimes called naproxen sodium.

You can get naproxen on prescription from your doctor. The brand names are Naprosyn and Arthrofen, and there are also unbranded versions.

You can buy products containing naproxen over the counter, but they're sold to treat period pains, not migraines.

How can it help?

Naproxen works slightly better than a dummy pill (placebo). But it is less effective than other over-the-counter painkillers, such as aspirin, paracetamol, and ibuprofen.^[74]

How does it work?

Like other NSAIDs, naproxen works by stopping your body making chemicals called prostaglandins. Your body makes these chemicals when you are in pain or injured. Prostaglandins cause **inflammation** and make you more sensitive to pain. By stopping

Migraine in adults

the prostaglandins, NSAIDs help you feel better. But not all NSAIDs are equally effective. Naproxen appears to be less effective than other NSAIDs. ^[74]

Can it be harmful?

The drawback of naproxen and other NSAIDs is that they can irritate the lining of your stomach. This may cause stomach ulcers or bleeding in your stomach. It's usually best not to take NSAIDs if you have a stomach ulcer or if you've had one in the past.

A study that included only a small number of people showed that 1 in 6 people taking naproxen had side effects. Stomach pain and indigestion (dyspepsia) were the most common problems. ^[75]

In another study comparing naproxen with an ergotamine drug, about 1 in 3 people on naproxen stopped taking it, presumably because of the side effects. ^[76]

Other less common side effects include vomiting (about 1 in 10 people got this), diarrhoea, dizziness, nausea, shivering, and sweating. In one study, about 2 in 100 people stopped taking the drug because of these side effects. ^[77]

NSAIDs can also make asthma worse. ^[32]

Guidelines for doctors say that if you need to take an NSAID, you should:

- Start on the lowest recommended dose
- Not use more than one NSAID at a time
- Not use NSAIDs at all if you have or have had an ulcer.

Taking high doses of NSAIDs every day for a long time may increase your risk of a heart attack or a stroke. This is unlikely to be a problem with the doses you take for a migraine. But if you'd like to read more, see [Warnings about side effects of NSAIDs](#).

How good is the research on naproxen?

We found a summary of the research (a systematic review) that looked at six high-quality studies (randomised controlled trials) with 2,700 people. ^[74]

The review found that fewer than 2 in 10 people who took naproxen were free from pain two hours after their migraine started. About 1 in 10 people who took a dummy pill (placebo) were free from pain two hours after their migraine started.

Because naproxen works only slightly better than a dummy pill, it is not considered to be as useful a treatment for migraine as other medicines.

Tolfenamic acid

Migraine in adults

In this section

[Does it work?](#)

[What is it?](#)

[How can it help?](#)

[How does it work?](#)

[Can it be harmful?](#)

[How good is the research on tolfenamic acid?](#)

This information is for adults who get migraines. It tells you about tolfenamic acid, a treatment used for migraines. It is based on the best and most up-to-date research.

Does it work?

Tolfenamic acid is likely to relieve your migraine headache.

Some studies have found that tolfenamic acid works about the same for migraine pain as [sumatriptan](#) or paracetamol.

What is it?

Tolfenamic acid is a type of painkiller called a **nonsteroidal anti-inflammatory drug** (NSAID). It's similar to ibuprofen. The brand name is Clotam. You can get it only on prescription.

How can it help?

Tolfenamic acid can make your migraine headache less severe and it may make it go away completely. If your headache is bad, it may make it more bearable. ^[78] ^[79] ^[80] ^[81]

One study showed that more than three-quarters (77 percent) of people taking tolfenamic acid felt that their headache became more bearable. ^[78]

How does it work?

Like other NSAIDs, tolfenamic acid works by stopping your body making chemicals called prostaglandins. Your body makes these chemicals when you are in pain or injured. Prostaglandins cause **inflammation** and make you more sensitive to pain. By stopping the prostaglandins, tolfenamic acid can help you feel better.

Can it be harmful?

The drawback of tolfenamic acid and other NSAIDs is that they can irritate the lining of your stomach. This may cause stomach **ulcers** or bleeding in your stomach. It's usually best not to take NSAIDs if you have a stomach ulcer or if you've had one in the past.

One study showed that about one-third of people taking tolfenamic acid got side effects. ^[78]

NSAIDs can also make **asthma** worse. ^[32]

Guidelines for doctors on NSAIDs also say that if you need an NSAID you should:

Migraine in adults

- Start on the lowest recommended dose
- Not use more than one NSAID at a time.

Taking high doses of some NSAIDs every day for a long time may increase your risk of a [heart attack](#) or a [stroke](#). This is unlikely to be a problem with the doses you take for a migraine. But if you'd like to read more, see [Warnings about side effects of NSAIDs](#).

How good is the research on tolfenamic acid?

There isn't that much evidence about whether tolfenamic acid can help if you have migraines.

One study looked at 49 people with migraine.^[81] Some took tolfenamic acid, either on its own or combined with caffeine or metoclopramide (a medicine that stops you feeling sick). The study found that tolfenamic acid, whether taken on its own, or with caffeine or metoclopramide, worked better at relieving migraines than a dummy treatment (a placebo).

Studies have also compared tolfenamic acid with other drugs.

- One study looked at 141 people. The people in the study took tolfenamic acid, [sumatriptan](#), or a placebo to treat their migraine headaches.^[78] Tolfenamic acid worked better than the placebo and about the same as sumatriptan in providing headache relief.
- A smaller study of 20 women compared tolfenamic acid with a placebo and with [aspirin](#) taken with a drug called [ergotamine](#). Women who took tolfenamic acid got faster migraine relief than women taking the other drugs.^[80]
- Another study compared tolfenamic acid and paracetamol in 149 people with migraine. The study found that tolfenamic acid was no better than paracetamol in treating migraine symptoms.^[79]

Ergotamine drugs

In this section

[Do they work?](#)

[What are they?](#)

[How can they help?](#)

[How do they work?](#)

[Can they be harmful?](#)

[How good is the research on ergotamine drugs?](#)

This information is for adults who get migraines. It tells you about ergotamine drugs, a treatment used for migraines. It is based on the best and most up-to-date research.

Migraine in adults

Do they work?

Drugs based on ergotamine are likely to work. But they are not usually the first choice for treatment because they have serious side effects. They can give you nausea and vomiting, or make your nausea and vomiting worse.

Also, research has found that they work less well for migraine than [aspirin](#) and a drug called [sumatriptan](#) .

What are they?

Ergotamine is a chemical which makes blood vessels narrower. Drugs based on this chemical are sometimes used to treat migraine attacks. These drugs can be taken alone or in combination with caffeine, which may make ergotamine work a little better.

There are a couple of different ways you can take ergotamine. Your doctor may prescribe it as a tablet or as a suppository (which you insert into your back passage).

If you take ergotamine with caffeine, the brand name is Cafergot. This comes as a tablet. If you take it with a drug to help your nausea and vomiting (called cyclizine), the brand name is Migril.

How can they help?

This medicine is likely to help relieve your migraine headaches. It can reduce your pain and may make your headache go away completely. ^[82]

But studies have found that it does not work as well as a triptan drug called sumatriptan. ^[83] ^[84] It also doesn't seem to work as well as aspirin. ^[85]

How do they work?

When you have a migraine attack, the blood vessels in your brain get wider. Ergotamine drugs cause your blood vessels to narrow. They also stop other processes that researchers think trigger these attacks.

Can they be harmful?

Ergotamine treatments can make some people feel sick. ^[82] Nausea and vomiting is the most common side effect, although this goes away within a quarter of an hour. ^[86]

Here's what we found out from the research. ^[86]

- One study found that 1 in 3 people who took ergotamine complained about nausea. But nausea and vomiting went away within 15 minutes.
- Only 1 in 100 people stopped taking ergotamine in the studies.

Migraine in adults

- Less than 1 in 10 people who had ergotamine injections got side effects. The most common problems were leg cramps and pain where people had the injection. Side effects went away within an hour.

Some serious, but less common side effects of using this medicine also have been reported. They include:

- Problems caused by not having enough blood going to parts of your body
- Fits (seizures)
- Heart problems
- Liver problems
- Leg pain
- Chest pain
- Sudden high blood pressure
- Soreness or redness where an injection of ergotamine is given
- Pain in your head and shoulders
- Numbness.

If you use ergotamine too often, your migraine symptoms may get worse. And it may also affect how much blood gets to your arms and legs. If you take ergotamine for a long time, you can become dependent on it.

Guidelines for doctors recommend avoiding drugs based on ergotamine when possible. ^[87] And there are strict limits on how often you should take these medicines. Because of the risks, it is very important that you don't take ergotamine drugs more often than your doctor tells you to.

The narrowing of blood vessels that happens when you take ergotamine can be risky if you have problems with your heart, poor circulation in your legs, and severe high blood pressure. Ergotamine is not recommended for people with these problems. It can also be unsafe for people with kidney problems and severe liver problems. ^[87]

Ergotamine products also affect other drugs. You should not take them with [triptans](#) , which are another type of medicine used to treat migraine attacks. Ergotamines also interact with:

- Some antibiotics (erythromycin, clarithromycin)

Migraine in adults

- **Beta-blockers** such as propranolol
- Some drugs for HIV and AIDS (amprenavir, indinavir, nelfinavir, ritonavir)
- The anti-obesity drug sibutramine (sibutramine has been withdrawn because of safety concerns)
- Antidepressants called [selective serotonin reuptake inhibitors \(SSRIs\)](#)
- Other drugs that make your blood vessels narrower.

How good is the research on ergotamine drugs?

There is some evidence that drugs based on ergotamine can relieve migraine headaches.

One big summary of the evidence (known as a **systematic review**) showed that ergotamine drugs were better than dummy tablets (**placebos**) at helping people who had migraines.^[82] Ergotamine made people's headaches less severe, reducing them from moderately or severely bad to mild. And ergotamine helped some people's headaches go away completely.

The review included seven studies known as **randomised controlled trials (RCTs)**. But none of these studies used the definition of migraine drawn up by a group of experts called the International Headache Society. This makes their results less reliable since we do not know for sure if all the people in the studies actually had migraine attacks or some other type of headache.

Some studies suggest that people treated with triptan drugs tend to do better than those on ergotamine, although there is often only one comparative study for each individual treatment.^{[83] [84] [55] [41]}

Different trials comparing ergotamines with naproxen do not provide convincing evidence that one treatment is better than the other.^{[88] [76] [77]} There is also one small study suggesting that people with migraine who take aspirin as well as another treatment to prevent nausea and sickness, feel better than those taking ergotamine with caffeine.^[85]

Treatments to prevent migraines

In this section

This information is for adults who get migraines. It tells you about treatments that can stop migraines happening so often.

We haven't looked at the research on these treatments in as much detail as we've looked at the research on most of the treatments we cover. But we wanted to include some information, as you may be interested in them.

Migraine in adults

If you have two or more migraines each month, or if your attacks are very bad, you may want to ask your doctor about medicine to prevent attacks. ^[89]

Drug treatments to prevent migraines

Drugs used to prevent migraines include beta-blockers, anti-epilepsy drugs, some individual antidepressants and, after severe migraines, a steroid called dexamethasone.

Beta-blockers

Beta-blockers are often the first choice. These drugs slow your heart beat and are mainly used to treat high blood pressure. But they also help some people with migraine. Beta-blockers used to prevent migraine include propranolol (brand name Inderal), metoprolol (Lopresor), nadolol (Corgard), and timolol (Betim). Studies have shown that beta-blockers cut the number of migraines and reduced people's pain. ^{[5] [90]}

But some people get side effects from beta-blockers. These include stomach upsets, low blood pressure, cold hands and feet, and headache. You shouldn't take beta-blockers if you have asthma, because they can bring on an asthma attack. ^[89]

Anti-epilepsy drugs

Anti-epilepsy drugs, including sodium valproate (Epilim) and topiramate (Topamax) may help reduce migraine attacks. ^{[90] [91] [92] [93]} But other anti-epilepsy drugs, such as gabapentin (Neurontin), don't appear to reduce attacks. ^[94] You'll usually take a lower dose than you would if you had epilepsy.

Anti-epilepsy drugs can all cause side effects. Side effects of sodium valproate include nausea, stomach upset, putting on weight, and temporary hair loss. Side effects of topiramate include nausea, stomach pain, upset stomach, a dry mouth, loss of appetite, tiredness, pins and needles, and headaches. Side effects of gabapentin include stomach upset, dry mouth, nausea, dizziness, and drowsiness. ^[89]

Antidepressants

Some people take an antidepressant called amitriptyline. This is a type of antidepressant called a tricyclic antidepressant. These drugs work well for some types of nerve pain. Side effects are common. They include dry mouth, drowsiness, blurred vision, stomach upsets, and nausea. ^[89]

There is also some evidence that a treatment called venlafaxine works to prevent migraine, and it is recommended as an alternative to amitriptyline. ^[95]

Dexamethasone

Dexamethasone is a steroid medicine that can be given as a tablet, by injection, or through a drip. It works by dampening down inflammation. Inflammation is thought to be one reason why migraines happen, and why severe migraines may last several days.

Migraine in adults

This treatment is not commonly used. But there is some evidence that it works in people whose migraines are so bad that they have to go to hospital.

In one big summary of the evidence (a [systematic review](#)), treatment with dexamethasone as well as standard therapy reduced the number of headaches in the first few days after a severe migraine. ^[96]

A second big summary of studies found similar effects. In the next 72 hours after attending an accident and emergency unit with a severe migraine, those given an injection of dexamethasone as well as standard treatment had fewer headaches. ^[97]

Non-drug treatments to prevent migraines

Acupuncture

Acupuncture is a traditional Chinese treatment. It's a type of complementary or alternative medicine.

If you have acupuncture, a trained acupuncturist puts sterile needles into your skin.

Traditional acupuncturists believe that acupuncture improves the flow of energy around the body. Some modern doctors think that putting needles in the skin could encourage the release of natural chemicals that block pain and help you feel relaxed. ^[98] Another theory is that acupuncture might work a bit like talking therapy. Discussing your situation with an acupuncturist and relaxing while the needles are put in might reduce anxiety, or help you cope better with pain.

We found a summary of research that says acupuncture is slightly better at preventing migraines than standard care or using medicines such as beta blockers. ^[99] This summary (a systematic review) looked at 22 individual studies with a total of 4,419 people, and so its findings are regarded as more reliable than findings from individual studies.

It found that those who had acupuncture were more likely to respond to treatment, and to have fewer headaches in the three to four months after treatment than those on standard care or treatment aimed at prevention.

But the review found no differences between 'true' acupuncture, in which people have needles put in at precise points to a precise depth, and sham acupuncture, in which needles may be put in at other points, to other depths, and may not puncture the skin at all.

Injections or surgery to prevent migraines

New ways of preventing migraine are being tested all the time. We don't know for certain how well these treatments work. We need to see more research.

Migraine in adults

Botulinum toxin (Botox) injections

Botox can reduce wrinkles by paralyzing muscles. It may also reduce the effect of chemicals in the body that help to cause pain. So, some doctors have tried it as a treatment for migraines.

A summary of eight studies suggested that Botox does not prevent migraines.^[100] But a more recent summary of research (a systematic review) found that Botox might be a small help for people who get migraines very often (more than 15 times a month).^[101] The review showed that it reduces the number of migraines very slightly (about two migraines fewer per month, compared with people who didn't have Botox treatment). But Botox doesn't appear to benefit people who have fewer than 15 migraines a month.

In the UK, Botox is approved as a preventive treatment for people who get headaches at least 15 days each month, of which eight are days with a migraine.^[89] You'll need about 30 injections in your face, head, and neck, and these have to be repeated every 12 weeks.

PFO closure

This is an operation to correct a small, very common heart defect called a patent foramen ovale (PFO). PFO seems to be more common in people with migraine.

Occipital nerve block

This is an injection to block nerves involved in migraine pain.

Paracetamol

In this section

This information is for adults who get migraines. It tells you about paracetamol, a treatment used for migraines.

We haven't looked at the research on this treatment in as much detail as we've looked at the research on most of the treatments we cover. But we wanted to include some information, as you may be interested in it.

Paracetamol is an over-the-counter pain reliever that people often take for headaches and other aches and pains. For migraine, many people take it combined with aspirin and caffeine in a treatment called Anadin Extra (to learn more, see [Aspirin](#)). Here, we look at taking paracetamol on its own.

A summary of 11 studies found that a 1,000 milligram (mg) dose of paracetamol can help relieve migraine pain and other migraine symptoms, such as nausea and being extra-sensitive to sound and light.^[102] However, it doesn't help everyone. The summary found that within two hours:

Migraine in adults

- 1 in 5 people taking paracetamol had no pain, compared with only 1 in 10 people taking a dummy treatment (a placebo).
- 1 in 2 people taking paracetamol had no worse than mild pain, compared with around 1 in 3 people taking a placebo.

Paracetamol is a widely used painkiller, and it's safe when taken at the recommended amounts. However, if you take more than the recommended dose, paracetamol can kill the cells in your liver, leading to liver failure. If you drink alcohol heavily, you shouldn't take paracetamol without discussing it with your doctor. You shouldn't take paracetamol if you already have liver damage.

Unlike [ibuprofen](#) and aspirin, paracetamol does not irritate the stomach.

You need to be careful not to take paracetamol and other painkillers too regularly. Taking paracetamol more than two or three times a week can cause more headaches. Your body gets used to the drug, and you have a headache when you stop taking it.

Further informations:

What does your brain do?

Your brain controls most of the functions in your body. It sends out signals to tell different parts of your body what to do. It also gets signals from your eyes, your skin, and other body parts to tell it what is going on around you. Your brain controls how you react to what is going on and it also lets you think about what is happening.

Your brain sends signals through nerve cells. These signals are electrical. It is a bit like electricity travelling along electrical wires. But your brain cells can also send signals as chemicals. These chemicals are called neurotransmitters because they send (or 'transmit') signals between nerve cells. Neurotransmitters travel from one cell to another. They tell nerve cells what to do.

Your brain works to keep all of these signals in balance. It filters out what is going on in the background so that you are not overwhelmed by a flood of information. For example, you don't usually notice the pressure receptors in your skin telling you that they feel your clothes against your body.

What causes auras?

Auras seem to be caused by a wave of electrical signals from your nerves that travel slowly across part of your brain. This wave of electrical impulses leads to that part of the brain becoming less active than usual. This can affect or slow down the part of your body controlled by that section of your brain.

Migraine in adults

The back of your brain, which controls your eyes, is the part most often affected. This explains why you may have vision problems. When the areas of your brain that are affected are the ones that control how your body feels, you may get numbness in parts of your body.

Migraine diary

You may find it useful to keep a diary of your migraine attacks. This can help you work out which things may be causing your attacks. Try to note what you were doing when an attack came on and what you ate and drank in the 24 hours before. You should then try to avoid these triggers as much as possible. For example, you should stop eating cheese if this seems to be a trigger for you.

You may also find that migraine attacks come on with two triggers rather than one. In some women, for example, eating cheese triggers a migraine attack only at certain times in their menstrual cycle .

Try to be faithful about keeping your migraine diary. If you get fewer migraine attacks after removing a trigger, it is worth continuing to avoid the trigger. ^[5]

You may want to collect these types of information in your diary:

23rd March 2004

<u>Migraine Diary</u>
How much sleep are you getting?
Do you feel stressed about any areas of your life?
What was the pain like when you got it?
How long did it last?
Did you have any other symptoms (sickness, dizziness, seeing bright lights)?
What were you doing when it came on?
Did the migraine stop you from doing what you were doing?
Where were you when it came on?
Did you have any warning of the migraine attack?
What had you eaten in the previous 12 to 24 hours?
Have you crossed any time zones lately?

A diary may help you work out what's causing your migraines.

Warnings about side effects of NSAIDs

Nonsteroidal anti-inflammatory drugs (NSAIDs) are used to treat pain and inflammation. Ibuprofen is probably the best-known NSAID. Although they are often useful, they can have side effects, including causing stomach upsets and ulcers, or more rarely, allergies or problems with your kidneys or liver. ^[32]

As well as these other side effects, people who take high doses of some NSAIDs for a long time may have a slightly higher risk of getting a heart attack or a stroke. High doses of NSAIDs may be used over a long period of time to treat conditions such as arthritis.

It's not always clear what counts as a long time for taking NSAIDs. In some research, two-thirds of the heart attacks happened in studies where people took NSAIDs for a year or longer. ^[33]

Below, we look at the different kinds of NSAIDs and what the research that has been done so far shows about their safety.

NSAIDs you can buy over the counter

You can buy low doses of some NSAIDs, such as ibuprofen, at a pharmacy. When taken at this lower dose for a short time, ibuprofen doesn't seem to increase people's risk of having a heart attack or a stroke. ^[34]

You can also get larger doses of ibuprofen on prescription from a doctor (see our information on prescription ibuprofen below). Taking these larger doses every day may slightly increase your risk of a heart attack or a stroke. But these doses are higher than the amount you'd take for a headache or other kinds of short-term pain.

Diclofenac is another NSAID that you can buy in low doses over the counter. It's sold for treating headaches, other aches and pains, and cold and flu symptoms. Diclofenac does increase the risk of heart attacks and strokes if used regularly. ^[35] However, there's probably much less of a risk if you're taking low doses for short periods of time. ^[36]

You can also buy an NSAID called naproxen without a prescription, for treating period pain. Naproxen doesn't seem to cause much increase in the risk of heart attacks or strokes. ^[33] ^[35] ^[37]

NSAIDs your doctor may prescribe

Selective COX-2 inhibitors

Selective COX-2 inhibitors are a newer type of NSAID. Some people got stomach problems as a side effect of taking older NSAIDs. COX-2 inhibitors were designed to

Migraine in adults

cause less irritation to your stomach. But research has found that these newer drugs can slightly increase your risk of a heart attack or a stroke.

COX-2 inhibitors called valdecoxib (brand name Bextra) and rofecoxib (Vioxx) have been taken off the market because of their side effects.^[34]

Other COX-2 inhibitors are still available in the UK. These include:

- celecoxib (Celebrex)
- etoricoxib (Arcoxia)
- meloxicam (Mobic).

The overall risk of having a heart attack or a stroke when taking these drugs is fairly small. For every 1,000 people regularly taking high doses, an extra three people will have a heart attack or a stroke.^[33] Your doctor can help you weigh up the risks and benefits of these drugs.

Also, you should not take etoricoxib if you have high blood pressure.^[38] But you can take it once your blood pressure is under control.

Other NSAIDs

There are several NSAIDs that aren't COX-2 inhibitors, which may also be prescribed by your doctor. They include (with brand names):

- diclofenac (Diclomax, Motifene, Voltarol)
- etodolac (Eccoxolac, Etopan, Lodine)
- ibuprofen
- ketoprofen (Oruvail, Orudis)
- mefenamic acid (Ponstan)
- naproxen (Naprosyn, Arthrofen).

The body that regulates medicines in the UK to make sure that they work and that they are safe is the Medicines and Healthcare products Regulatory Agency (MHRA).^[39] It has issued a warning about diclofenac. The MHRA says that people should not take diclofenac if they have serious heart conditions, such as heart failure, heart disease, or circulatory problems, or if they have ever had a heart attack or stroke.

Migraine in adults

Research has found that regularly taking high doses of ibuprofen or diclofenac over a long period of time may increase your risk of getting a heart attack or a stroke. ^[34]

We don't know exactly how big the risk is, or how it varies between the different drugs. The research that has been done so far suggests that:

- Taking diclofenac has a similar risk of heart attack to some COX-2 inhibitors. ^[34] That would mean three extra heart attacks or strokes each year for every 1,000 people taking high daily doses.
- Naproxen may be safer than COX-2 inhibitors. ^[34] Most studies so far seem to show that naproxen doesn't seem to increase people's chances of getting a heart attack or a stroke. ^{[33] [35] [37]} One study did suggest a small increase in the risk of stroke in people who took naproxen, but it was less than the increased risk with a COX-2 inhibitor. ^[37]

Guidelines for doctors say that for most people, the benefits of these drugs outweigh the risks. ^[40] The risks are probably lower for people who only take NSAIDs for a short time or take smaller doses. ^[34]

Guidelines for doctors

Doctors have guidelines about how they should prescribe COX-2 inhibitors and other NSAIDs. They say that: ^[34]

- People should take the lowest dose of an NSAID that works for them
- People should only take NSAIDs for as long as they need to. People taking them for a long time should have their treatment reviewed regularly
- People who already have heart disease shouldn't take COX-2 inhibitors
- Doctors should weigh up the risks and benefits of NSAIDs for each person. For example, your doctor may suggest a COX-2 inhibitor if you're at risk of stomach problems but you're not at risk of having a heart attack
- People are more likely to get stomach problems if they take aspirin as well as an NSAID. People should only take aspirin and an NSAID together if they really need to.

If you're worried about the medicine you're taking, talk to your doctor.

Glossary:

neurotransmitters

Migraine in adults

Neurotransmitters are chemicals that help to carry messages between nerve cells. Serotonin, dopamine, and norepinephrine (noradrenaline) are all neurotransmitters.

inflammation

Inflammation is when your skin or some other part of your body becomes red, swollen, hot, and sore. Inflammation happens because your body is trying to protect you from germs, from something that's in your body and could harm you (like a splinter) or from things that cause allergies (these things are called allergens). Inflammation is one of the ways in which your body heals an infection or an injury.

auras

Auras are short-term changes in the way your nerves work. The changes happen before some migraine headaches, fits (seizures) or other problems with your nervous system. If you have an aura, you may see flashing lights, have blind spots (areas that you can't see) or get ringing in your ears. Some people get numbness or pins and needles in parts of their body. Others have trouble speaking or feel distant from people around them.

diarrhoea

Diarrhoea is when you have loose, watery stools and you need to go to the toilet far more often than usual. Doctors say you have diarrhoea if you need to go to the toilet more than three times a day.

menstrual cycle

The menstrual cycle is the regular monthly process that causes an egg to be released from the ovaries so that a woman can get pregnant. The menstrual cycle causes her period, the bleeding that happens if she does not get pregnant.

genes

Your genes are the parts of your cells that contain instructions for how your body works. Genes are found on chromosomes, structures that sit in the nucleus at the middle of each of your cells. You have 23 pairs of chromosomes in your normal cells, each of which has thousands of genes. You get one set of chromosomes, and all of the genes that are on them, from each of your parents.

meningitis

Meningitis is a swelling in the thin layers of tissue that surround your brain and your spinal cord. It usually happens because of an infection with certain kinds of bacteria or viruses. Meningitis can give you a severe headache and a stiff neck. And you may find it difficult to keep your eyes open in the light. Meningitis is a life-threatening disease. If you have these symptoms, you should go to hospital straight away.

hormones

Hormones are chemicals that are made in certain parts of the body. They travel through the bloodstream and have an effect on other parts of the body. For example, the female sex hormone oestrogen is made in a woman's ovaries. Oestrogen has many different effects on a woman's body. It makes the breasts grow at puberty and helps control periods. It is also needed to get pregnant.

menopause

When a woman stops having periods, it is called the menopause. This usually happens around the age of 50.

stroke

You have a stroke when the blood supply to a part of your brain is cut off. This damages your brain and can cause symptoms like weakness or numbness on one side of your body. You may also find it hard to speak if you've had a stroke.

NSAIDs

NSAID stands for nonsteroidal anti-inflammatory drug. NSAIDs help with pain, inflammation and fever. They are called 'nonsteroidal' because they don't contain any steroids. Aspirin and ibuprofen are both NSAIDs.

stomach ulcer

A stomach ulcer is a break in the surface that covers the inside of your stomach.

placebo

A placebo is a 'pretend' or dummy treatment that contains no active substances. A placebo is often given to half the people taking part in medical research trials, for comparison with the 'real' treatment. It is made to look and taste identical to the drug treatment being tested, so that people in the studies do not know if they are getting the placebo or the 'real' treatment. Researchers often talk about the 'placebo effect'. This is where patients feel better after having a placebo treatment because they expect to feel better. Tests may indicate that they actually are better. In the same way, people can also get side effects after having a placebo treatment. Drug treatments can also have a 'placebo effect'. This is why, to get a true picture of how well a drug works, it is important to compare it against a placebo treatment.

randomised controlled trials

Randomised controlled trials are medical studies designed to test whether a treatment works. Patients are split into groups. One group is given the treatment being tested (for example, an antidepressant drug) while another group (called the comparison or control group) is given an alternative treatment. This could be a different type of drug or a dummy treatment (a placebo). Researchers then compare the effects of the different treatments.

systematic reviews

Migraine in adults

A systematic review is a thorough look through published research on a particular topic. Only studies that have been carried out to a high standard are included. A systematic review may or may not include a meta-analysis, which is when the results from individual studies are put together.

intravenous infusion

When a medicine or a fluid, such as blood, is fed directly into a vein, it's called an intravenous infusion (or IV). To give you an intravenous infusion, a nurse, technician or a doctor places a narrow plastic tube into a vein (usually in your arm) using a needle. The needle is then removed and the fluid is infused (or dripped) through the tube into the vein.

ulcer

An ulcer is an open sore. Ulcers can happen in many parts of your body, such as in your stomach, and the skin of your legs, mouth, or genitals.

asthma

Asthma is a disease of the lungs. It makes you wheeze, cough and feel short of breath. Asthma attacks are caused by inflammation and narrowing of your airways, which makes it hard for air to pass in and out of your lungs.

heart attack

Doctors call a heart attack an acute myocardial infarction (or acute MI). This is the name for the damage that occurs to the heart muscle if it isn't getting enough blood and oxygen because a branch of the coronary arteries is blocked. During a heart attack, you may have pain or heaviness over your chest, and pain, numbness or tingling in your jaw and left arm.

arthritis

Arthritis is when your joints become inflamed, making them stiff and painful. There are different kinds of arthritis. Osteoarthritis is the most common type. It happens when the cartilage at the end of your bones becomes damaged and then starts to grow abnormally. Rheumatoid arthritis happens because your immune system attacks the lining of your joints.

randomised controlled trials

Randomised controlled trials are medical studies designed to test whether a treatment works. Patients are split into groups. One group is given the treatment being tested (for example, an antidepressant drug) while another group (called the comparison or control group) is given an alternative treatment. This could be a different type of drug or a dummy treatment (a placebo). Researchers then compare the effects of the different treatments.

high blood pressure

Your blood pressure is considered to be high when it is above the accepted normal range. The usual limit for normal blood pressure is 140/90. If either the first (systolic) number is above 140 or the lower (diastolic) number is above 90, a person is considered to have high blood pressure. Doctors sometimes call high blood pressure 'hypertension'.

heart disease

You get heart disease when your heart isn't able to pump blood as well as it should. This can happen for a variety of reasons.

allergy

If you have an allergy to something (such as pollen or a medicine), your body always overreacts to it. The reaction happens because your immune system (your body's system for fighting infection) is too sensitive to it.

corticosteroids

Corticosteroids are substances that your body makes naturally. But they can also be made in a laboratory to treat certain conditions. Corticosteroids have many different effects, including helping the body to use sugar and to control the amount of fluid it retains. They also reduce inflammation in the body, which is why they are sometimes used to treat diseases like asthma. (Asthma is caused by inflammation in the tubes that carry air in the lungs.)

seizure

A seizure (or fit) is when there is too much electrical activity in your brain, which results in muscle twitching and other symptoms.

Beta-blockers

These drugs work by blocking the effects of certain chemicals produced by your body (such as adrenaline). Beta-blockers slow your heart rate and improve the beating of your heart. They are often used in people with angina or heart failure.

Sources for the information on this leaflet:

1. Goadsby PJ, Lipton RB, Ferrari MD. Migraine: current understanding and treatment. *New England Journal of Medicine*. 2002; 346: 257-270.
2. Tepper SJ, Donnan GA, Dowson AJ, et al. A long-term study to maximise migraine relief with zolmitriptan. *Current medical research and opinion*. 1999; 15: 254-271.
3. National Institute of Neurological Disorders and Stroke. Migraine information page. July 2013. Available at <http://www.ninds.nih.gov/disorders/migraine/migraine.htm> (accessed on 26 September 2014).

Migraine in adults

4. Pace B, Glass RM. Migraine headache. *Journal of the American Medical Association*. 2000; 284: 2672.
5. Drug and Therapeutics Bulletin. Managing migraine. *Drug and Therapeutics Bulletin*. 1998; 36: 41-44.
6. Mannix LK. Epidemiology and impact of primary headache disorders. *Medical Clinics of North America*. 2001; 85: 887-895.
7. Breslau N, Rasmussen BK. The impact of migraine: epidemiology, risk factors, and co-morbidities. *Neurology*. 2001; 56 (supplement 1): S4-S12.
8. Spierings EL. Mechanism of migraine and action of antimigraine medications. *Medical Clinics of North America*. 2001; 85: 943-958.
9. Steiner TJ, Scher AL, Stewart WF, et al. The prevalence and disability burden of adult migraine in England and their relationships to age, gender and ethnicity. *Cephalalgia*. 2003; 23: 519-527.
10. Stewart WF, Lipton RB, Dowson AJ, et al. Development and testing of the Migraine Disability Assessment (MIDAS) Questionnaire to assess headache-related disability. *Neurology*. 2001; 56 (supplement 1): S20-S28.
11. Neri I, Granella F, Nappi R, et al. Characteristics of headache at menopause: a clinico-epidemiologic study. *Maturitas*. 1993; 17: 31-37.
12. Tietjen GE. The relationship of migraine and stroke. *Neuroepidemiology*. 2000; 19: 13-19.
13. Dowson AJ, Sender J, Lipscombe S, et al. Establishing principles for migraine management in primary care. *International Journal of Clinical Practice*. 2003; 57: 493-507.
14. Dowson AJ, Lipscombe S, Sender J, et al. Migraine in primary care advisors: new guidelines for the management of migraine in primary care. *Current Medical Research and Opinion*. 2002; 18: 414-439.
15. Kaniecki R. Headache assessment and management. *Journal of the American Medical Association*. 2003; 289: 1430-1433.
16. Goadsby PJ, Zanchin G, Geraud G. Early vs. non-early intervention in acute migraine 'Act when Mild (AwM)': a double-blind, placebo-controlled trial of almotriptan. *Cephalalgia*. 2008; 28: 383-391.
17. John PJ, Sharma N, Sharma CM. Effectiveness of yoga therapy in the treatment of migraine without aura: a randomized controlled trial. *Headache*. 2007; 47: 654-661.
18. Kirthi V, Derry S, Moore RA. Aspirin with or without an antiemetic for acute migraine headaches in adults (Cochrane review). In: *The Cochrane Library*. Wiley, Chichester, UK.
19. Limmroth V, May A, Diener H. Lysine-acetylsalicylic acid in acute migraine attacks. *European Neurology*. 1999; 41: 88-93.
20. Lipton RB, Stewart WF, Ryan RE Jr, et al. Efficacy and safety of acetaminophen, aspirin, and caffeine in alleviating migraine headache pain. *Archives of Neurology*. 1998; 55: 210-217.
21. Tfelt-Hansen P, Olesen J. Effervescent metoclopramide and aspirin (Migravess) versus effervescent aspirin or placebo. *Cephalalgia*. 1984; 4: 107-111.
22. Lange R, Schwarz JA, Hohn M. Acetylsalicylic acid effervescent 1000 mg (Aspirin) in acute migraine attack: a multicentre, randomized, double-blind, single-dose, placebo-controlled parallel group study. *Cephalalgia*. 2000; 20: 663-667.
23. MacGregor EA, Dowson A, Davies PT. Mouth-dispersible aspirin in the treatment of migraine: a placebo-controlled study. *Headache*. 2002; 42: 249-255.
24. The Oral Sumatriptan and Aspirin plus Metoclopramide Comparative Study Group. A study to compare oral sumatriptan with oral aspirin plus oral metoclopramide in the acute treatment of migraine. *European Neurology*. 1992; 32: 177-184.
25. Boureau F, Joubert JM, Lasserre V, et al. Double-blind comparison of an acetaminophen 400 mg-codeine 25 mg combination versus aspirin 1000 mg and placebo in acute migraine attack. *Cephalalgia*. 1994; 14: 156-161.
26. Chabriat H, Joire J, Dancho J, et al. Combined oral lysine acetylsalicylate and metoclopramide in the acute treatment of migraine: a multicentre double-blind placebo-controlled study. *Cephalalgia*. 2001; 14: 297-300.

Migraine in adults

27. Hooper L, Brown TJ, Elliott RA, et al. The effectiveness of five strategies for the prevention of gastrointestinal toxicity induced by non-steroidal anti-inflammatory drugs: a systematic review. *BMJ*. 2004; 329: 948-952.
28. Diener HC. Efficacy and safety of intravenous acetylsalicylic acid lysinate compared to subcutaneous sumatriptan and parenteral placebo. *Cephalalgia*. 1999; 19: 581-588.
29. British National Formulary. Non-steroidal anti-inflammatory drugs. Section 10.1.1. British Medical Association and Royal Pharmaceutical Society of Great Britain. Also available at <http://bnf.org> (accessed on 26 September 2014).
30. Rabbie R, Derry S, Moore RA. Ibuprofen with or without an antiemetic for acute migraine headaches in adults (Cochrane review). In: *The Cochrane Library*. Wiley, Chichester, UK.
31. Kloster R, Nestvold K, Vilming S. A double-blind study of ibuprofen versus placebo in the treatment of acute migraine attacks. *Cephalalgia*. 1992; 12: 169-171.
32. British National Formulary. Non-steroidal anti-inflammatory drugs. Section 10.1.1. British Medical Association and Royal Pharmaceutical Society of Great Britain. Also available at <http://bnf.org> (accessed on 26 September 2014).
33. Kearney PM, Baigent C, Godwin J, et al. Do selective cyclo-oxygenase-2 inhibitors and traditional non-steroidal anti-inflammatory drugs increase the risk of atherothrombosis? *BMJ*. 2006; 332: 1302-1308.
34. Medicines and Healthcare products Regulatory Agency. Cardiovascular safety of COX-2 inhibitors and non-selective NSAIDs. July 2010. Available at <http://www.mhra.gov.uk> (accessed on 26 September 2014).
35. McGettigan P, Henry D. Cardiovascular risk and inhibition of cyclooxygenase: a systematic review of the observational studies of selective and nonselective inhibitors of cyclooxygenase 2. *Journal of the American Medical Association*. 2006; 296: 1633-1644.
36. Electronic Medicines Compendium. Voltarol Pain-eze tablets. March 2011. Available at <http://www.medicines.org.uk/emc/medicine/21170/SPC/Voltarol+Pain-eze%20ae+Tablets> (accessed on 26 September 2014).
37. Haag MD, Bos MJ, Hofman A, et al. Cyclooxygenase selectivity of nonsteroidal anti-inflammatory drugs and risk of stroke. *Archives of Internal Medicine*. 2008; 168: 1219-1224.
38. British National Formulary. Non-steroidal anti-inflammatory drugs: etoricoxib. Section 10.1.1. British Medical Association and Royal Pharmaceutical Society of Great Britain. Also available at <http://bnf.org> (accessed on 26 September 2014).
39. Medicines and Healthcare Products Regulatory Agency. Press release: MHRA confirms advice on the use of diclofenac. June 2013. Available at <http://www.mhra.gov.uk/NewsCentre/Pressreleases/CON287042> (accessed on 26 September 2014).
40. European Medicines Agency. Questions and answers on the review of non-selective NSAIDs. October 2006. Available at http://www.ema.europa.eu/docs/en_GB/document_library/Other/2010/01/WC500054345.pdf (accessed on 26 September 2014).
41. Ferrari MD, Goadsby PJ, Roon KI, et al. Triptans (serotonin, 5-HT_{1B/1D} agonists) in migraine: detailed results and methods of a meta-analysis of 53 trials. *Cephalalgia*. 2002; 22: 633-658.
42. Mathew NT, Schoenen J, Winner P, et al. Comparative efficacy of eletriptan 40 mg versus sumatriptan 100 mg. *Headache*. 2003; 43: 214-222.
43. Pascual J, Mateos V, Roig C, et al. Marketed oral triptans in the acute treatment of migraine: a systematic review on efficacy and tolerability. *Headache*. 2007; 47: 1152-1168.
44. Sandrini G, Farkkila M, Gurgess G, et al. Eletriptan versus sumatriptan: a double-blind, multiple migraine attack study. *Neurology*. 2002; 59: 1210-1217.
45. Sheftell F, Ryan R, Pitman V. Efficacy, safety, and tolerability of oral eletriptan for treatment of acute migraine: a multicenter, double-blind, placebo-controlled study conducted in the United States. *Headache*. 2003; 43: 202-213.
46. Farkkila M, Olesen J, Dahlof C, et al. Eletriptan for the treatment of migraine in patients with previous poor response or tolerance to oral sumatriptan. *Cephalalgia*. 2003; 23: 463-471.

Migraine in adults

47. British National Formulary. 5HT₁ agonists. Section 4.7.4.1. British Medical Association and Royal Pharmaceutical Society of Great Britain. Available at <http://www.bnf.org/> (accessed on 26 September 2014).
48. U.S. Food and Drug Administration. Combined use of 5-hydroxytryptamine receptor agonists (triptans), selective serotonin reuptake inhibitors (SSRIs) and selective serotonin/norepinephrine reuptake inhibitors (SNRIs) may result in life-threatening serotonin syndrome. July 2006. Available at <http://www.fda.gov> (accessed on 26 September 2014).
49. Stark R, Dahlos C, Haughie S, et al. Efficacy, safety and tolerability of oral eletriptan in the acute treatment of migraine: results of a phase III, multicentre, placebo controlled study across three attacks. *Cephalalgia*. 2002; 22: 23-32.
50. Eletriptan Steering Committee in Japan. Efficacy and safety of eletriptan 20 mg, 40 mg and 80 mg in Japanese migraineurs. *Cephalalgia*. 2002; 22: 416-423.
51. Havanka H, Dahlof C, Pop P, et al. Efficacy of naratriptan tablets in the acute treatment of migraine: a dose-ranging study. *Clinical Therapeutics*. 2000; 22: 970-980.
52. Stark S, Spierings EL, McNeal S, et al. Naratriptan efficacy in migraineurs who respond poorly to oral sumatriptan. *Headache*. 2000; 40: 513-520.
53. Gobel H, Winter P, Boswell D, et al. Comparison of naratriptan and sumatriptan in recurrence-prone migraine patients. *Clinical Therapeutics*. 2000; 22: 981-989.
54. Pascual J, Vega P, Diener HC, et al. Comparison of rizatriptan 10 mg vs. zolmitriptan 2.5 mg in the acute treatment of migraine. *Cephalalgia*. 2000; 20: 455-461.
55. Christie S, Gobel H, Mateos V, et al. Crossover comparison of efficacy and preference for rizatriptan 10 mg versus ergotamine/cafeine in migraine. *European Neurology*. 2003; 49: 20-29.
56. Cady RK, Martin VT, Géraud G, et al. Rizatriptan 10-mg ODT for early treatment of migraine and impact of migraine education on treatment response. *Headache*. 2009; 49: 687-696.
57. Tfelt-Hansen P. Efficacy and harms of subcutaneous, oral, and intranasal sumatriptan used for migraine treatment: a systematic review based on number needed to treat. *Cephalalgia*. 2001; 18: 532-538.
58. Boureau F, Chazot G, Emile J, et al. Comparison of subcutaneous sumatriptan with usual acute treatments for migraine. *European Neurology*. 1995; 35: 264-269.
59. Derry CJ, Derry S, Moore RA. Sumatriptan (oral route of administration) for acute migraine attacks in adults (Cochrane review). In: *The Cochrane Library*. Wiley, Chichester, UK.
60. Gallagher RM, Dennish G, Spierings EL, et al. A comparative trial of zolmitriptan and sumatriptan for the acute oral treatment of migraine. *Headache*. 2000; 40: 119-128.
61. Boureau F, Kappos L, Schoenen J, et al. A clinical comparison of sumatriptan nasal spray and dihydroergotamine nasal spray in the acute treatment of migraine. *International Journal of Clinical Practice*. 2000; 54: 281-286.
62. Sakai F, Iwata M, Tashiro K, et al. Zolmitriptan is effective and well tolerated in Japanese patients with migraine: a dose-response study. *Cephalalgia*. 2002; 22: 376-383.
63. Dowson AJ, MacGregor EA, Purdy RA, et al. Zolmitriptan orally disintegrating tablet is effective in the acute treatment of migraine. *Cephalalgia*. 2002; 22: 101-106.
64. Bird S, Derry S, Moore RA. Zolmitriptan for acute migraine attacks in adults (Cochrane review). In: *The Cochrane Library*. Wiley, Chichester, UK.
65. Gruffyd-Jones K, Kies B, Middleton A, et al. Zolmitriptan versus sumatriptan for the acute oral treatment of migraine: a randomized, double-blind, international study. *European Journal of Neurology*. 2001; 8: 237-245.

Migraine in adults

66. Geraud G, Compagnon A, Rossi A. Zolmitriptan versus a combination of acetylsalicylic acid and metoclopramide in the acute oral treatment of migraine: a double-blind, randomised, three-attack study. *European Neurology*. 2002; 47: 88-98.
67. Dowson AJ, MacGregor EA, Purdy RA, et al. Zolmitriptan orally disintegrating tablet is effective in the acute treatment of migraine. *Cephalalgia*. 2002; 22: 101-106.
68. Dahlof C, Bjorkman R. Diclofenac-K (50 and 100 mg) and placebo in the acute treatment of migraine. *Cephalalgia*. 1993; 13: 117-123.
69. Massiou H, Serrurier D, Lasserre O, et al. Effectiveness of oral diclofenac in the acute treatment of common migraine attacks: a double-blind study versus placebo. *Cephalalgia*. 1991; 11: 59-63.
70. Karachalios GN, Fotiadou A, Chrisikos N, et al. Treatment of acute migraine attack with diclofenac sodium: a double-blind study. *Headache*. 1992; 32: 98-100.
71. Bigal ME, Bordini CA, Speciali JG. Intramuscular diclofenac in the acute treatment of migraine: a double-blind placebo controlled study. *Arquivos de Neuro-psiquiatria*. 2002; 60: 410-415.
72. The Diclofenac-K/Sumatriptan Migraine Study Group. Acute treatment of migraine attacks: efficacy and safety of nonsteroidal anti-inflammatory drug, diclofenac-potassium in comparison to oral sumatriptan and placebo. *Cephalalgia*. 1999; 19: 232-240.
73. Derry S, Rabbie R, Moore RA. Diclofenac with or without an antiemetic for acute migraine headaches in adults (Cochrane review). In: *The Cochrane Library*. Wiley, Chichester, UK.
74. Law S, Derry S, Moore RA. Naproxen with or without an antiemetic for acute migraine headaches in adults (Cochrane review). In: *The Cochrane Library*. Wiley, Chichester, UK.
75. Andersson P, Hinge H, Johansen O, et al. Double-blind study of naproxen v placebo in the treatment of acute migraine attacks. *Cephalalgia*. 1989; 9: 29-32.
76. Treves TA, Streiffler M, Korczyn AD. Naproxen sodium versus ergotamine tartrate in the treatment of acute migraine attacks. *Headache*. 1992; 32: 280-282.
77. Sargent JD, Baumel B, Peters K, et al. Aborting a migraine attack: naproxen sodium v ergotamine plus caffeine. *Headache*. 1998; 28: 263-266.
78. Myllyla V, Havanka H, Herrala L, et al. Tolfenamic acid rapid release versus sumatriptan in the acute treatment of migraine: comparable effect in a double-blind, randomized, controlled, parallel-group study. *Headache*. 1998; 38: 201-207.
79. Norrelund N, Christiansen LV, Plantener S. Tolfenamic acid versus paracetamol in migraine attacks: a double-blind study in general practice. *Ugeskrift for Laeger*. 1989; 151: 2436-2438.
80. Hakkarainen H, Vapaatalo H, Gothoni G, et al. Tolfenamic acid is as effective as ergotamine during migraine attacks. *Lancet*. 1979; 2: 326-328.
81. Tokola RA, Kangasniemi P, Neuvonen PJ, et al. Tolfenamic acid, metoclopramide, caffeine and their combinations in the treatment of migraine attacks. *Cephalalgia*. 1984; 4: 253-263.
82. Dahlof C. Placebo-controlled clinical trials with ergotamine in the acute treatment of migraine. *Cephalalgia*. 1993; 13: 166-171.
83. Boureau F, Kappos L, Schoenen J, et al. A clinical comparison of sumatriptan nasal spray and dihydroergotamine nasal spray in the acute treatment of migraine. *International Journal of Clinical Practice*. 2000; 54: 281-286.
84. The Multinational Oral Sumatriptan and Cafergot Comparative Study Group. A randomized, double-blind comparison of sumatriptan and Cafergot in the acute treatment of migraine. *European Neurology*. 1991; 31: 314-322.
85. Titus F, Escamilla C, da Costa Palmeira MM, et al. A double-blind comparison of lysine acetylsalicylate plus metoclopramide vs ergotamine plus caffeine in migraine effects on nausea, vomiting and headache symptoms. *Clinical Drug Investigation*. 2001; 21: 87-94.

Migraine in adults

86. Lipton R. Ergotamine tartrate and dihydroergotamine mesylate: safety profiles. *Headache*. 1997; 37 (supplement 1): S33-S41.
87. British National Formulary. Ergot alkaloids. Section 4.7.4.1. British Medical Association and Royal Pharmaceutical Society of Great Britain. Also available at <http://bnf.org> (accessed on 26 September 2014).
88. Pradalier A, Rancurel G, Dordain G, et al. Acute migraine attack therapy: comparison of naproxen sodium and an ergotamine tartrate compound. *Cephalalgia*. 1985; 5: 107-113.
89. British National Formulary. Prophylaxis of migraine. Section 4.7.4.2. British Medical Association and Royal Pharmaceutical Society of Great Britain. Also available at <http://bnf.org> (accessed on 26 September 2014).
90. Silberstein SD, Holland S, Freitag F, et al. Evidence-based guideline update: pharmacologic treatment for episodic migraine prevention in adults: report of the Quality Standards Subcommittee of the American Academy of Neurology and the American Headache Society. *Neurology*. 2012; 78: 1337-1345.
91. Mulleners WM, Chronicle EP. Anticonvulsants in migraine prophylaxis: a Cochrane review. *Cephalalgia*. 2008; 28: 585-597.
92. Linde M, Mulleners WM, Chronicle EP, et al. Valproate (valproic acid or sodium valproate or a combination of the two) for the prophylaxis of episodic migraine in adults (Cochrane review). In: *The Cochrane Library*. Wiley, Chichester, UK.
93. Linde M, Mulleners WM, Chronicle EP, et al. Topiramate for the prophylaxis of episodic migraine in adults (Cochrane review). In: *The Cochrane Library*. Wiley, Chichester, UK.
94. Linde M, Mulleners WM, Chronicle EP, et al. Gabapentin or pregabalin for the prophylaxis of episodic migraine in adults (Cochrane review). In: *The Cochrane Library*. Wiley, Chichester, UK.
95. Scottish Intercollegiate Guidelines Network. Diagnosis and management of headache in adults. November 2008. Guideline 107. Available at <http://www.sign.ac.uk/pdf/sign107.pdf> (accessed on 26 September 2014).
96. Singh A, Alter HJ, Zaia B. Does the addition of dexamethasone to standard therapy for acute migraine headache decrease the incidence of recurrent headache for patients treated in the emergency department? A meta-analysis and systematic review of the literature. *Academic Emergency Medicine*. 2008; 15: 1223-1233.
97. Colman I, Friedman BW, Brown MD, et al. Parenteral dexamethasone for acute severe migraine headache: meta-analysis of randomised controlled trials for preventing recurrence. *BMJ*. 2008; 336: 1359-1361
98. Carlsson C. Acupuncture mechanisms for clinically relevant long-term effects: reconsideration and a hypothesis. *Acupuncture in Medicine*. 2002; 20: 82-99.
99. Linde K, Allais G, Brinkhaus B, et al. Acupuncture for migraine prophylaxis (Cochrane review). In: *The Cochrane Library*. Wiley, Chichester, UK.
100. Shuhendler AJ, Lee S, Siu M, et al. Efficacy of botulinum toxin type A for the prophylaxis of episodic migraine headaches: a meta-analysis of randomized, double-blind, placebo-controlled trials. *Pharmacotherapy*. 2009; 29: 784-791.
101. Jackson JL, Kuriyama A, Hayashino Y. Botulinum toxin A for prophylactic treatment of migraine and tension headaches in adults: a meta-analysis. *JAMA*. 2012; 307: 1736-1745.
102. Derry S, Moore RA. Paracetamol (acetaminophen) with or without an antiemetic for acute migraine headaches in adults (Cochrane review). In: *The Cochrane Library*. Wiley, Chichester, UK.

This information is aimed at a UK patient audience. This information however does not replace medical advice. If you have a medical problem please see your doctor. Please see our full [Conditions of Use](#) for this content. For more information about this condition and sources of the information contained in this leaflet please visit the Best Health website, <http://besthealth.bmj.com>. These leaflets are reviewed annually.

