
Headache

Summary

- Headaches are very common, with around 15 per cent of Australians taking pain-relieving medication for headache at any given time.
 - There are different types of recurring headache and many causes, so it is important to seek diagnosis from a qualified health professional.
 - Causes of headache can include stress, medications, diet, jaw problems, and illnesses of the eye, ear, nose and throat.
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Headache is one of the most common health-related conditions in Australia, with around 15 per cent of us taking pain-relieving medication for a headache at any given time. It is likely that nearly all of us will experience headache during our lifetime. People of any age can be affected, but people between the ages of 25 and 44 years are more likely to report having a headache.

There are different types of headache and many different causes, which explains why the condition is so common. Most headaches have more than one contributing factor. Some of the more common triggers for headache are lifestyle related, such as poor diet, stress, muscle tension, and lack of exercise. Serious underlying disorders, such as brain tumours, are rarely the cause of headache, although persistent headache should always be investigated by a doctor.

Headache can be classified into two broad categories: primary and secondary. Examples of primary headache include cluster and tension headaches. Secondary headaches are triggered by an underlying disorder – such as infection, injury or a tumour – and are a side effect of the main illness.

Pain receptors and headache

You feel pain when various structures of your head are inflamed or irritated. These structures include:

- the muscles and skin of the head
- the nerves of the head and neck
- the arteries leading to the brain
- the membranes of the ear, nose and throat
- the sinuses, which are air-filled cavities inside the head that form part of the respiratory system.

The sensation of pain can also be 'referred', which means that pain occurring in one area can transmit the feeling of pain to an area nearby. An example is the referred pain of a headache arising from a sore neck.

Causes of headache

Anything that stimulates the pain receptors in a person's head or neck can cause a headache, including:

- stress
 - muscular tension
 - dental or jaw problems
 - infections
 - diet
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- eye problems
- hormonal influences
- medications
- disorders of the ear, nose or throat
- disorders of the nervous system
- injury to the head, neck or spine
- high blood pressure
- poor posture - puts unnecessary strain on the muscles of the back and neck
- hangover from abuse of alcohol or drugs
- temperature - extremes of heat or cold
- dehydration - affects blood pressure
- noise - especially loud noises
- temporal arteritis - inflammation of the artery at the temple, most common in elderly people
- arthritis
- meningitis.

Headache caused by stress or tension

Tension headache is the most common type of headache. Two out of three people will have at least one tension headache in their lifetime, which:

- feels like a tight band of pressure around the head
- is often associated with muscle tightness in the head, neck or jaw
- can be caused by physical or emotional stress
- is best treated by making lifestyle adjustments, such as exercise, diet, stress management and attention to posture.

Misalignments of the spine and neck, poor posture and muscle tension can refer pain into the head. Therapies to treat recurring headache caused by musculoskeletal problems may include osteotherapy, physiotherapy or chiropractic.

Stress is thought to trigger our body's 'fight or flight' response, which is characterised by shallow breathing, faster heart rate and raised blood pressure, and greater amounts of 'stress chemicals' such as adrenaline.

Stress can cause or worsen a headache in a number of ways, including:

- tightening the muscles, particularly of the upper back, shoulders, neck and head
- lowering a person's tolerance to pain
- reducing the effects of medications such as pain-relievers
- reducing the levels of endorphins, which are the body's natural pain-relieving chemicals.

Headache and jaw or dental problems

If the teeth of a person's upper and lower jaw fail to meet smoothly, the resulting muscle tension in the jaw can cause headache. Treatment may include correcting the bite, replacing missing teeth or using occlusal splints, which allow the jaw to close without dental interference. Surgery may be needed in severe cases.

Tooth decay, dental abscesses and post-extraction infection can cause headache, as well as referred pain to the face and head, and these need to be professionally treated by a dentist.

Headache caused by infection

Many infections of the nose, throat and ear can cause headache. Depending on the disorder, treatment can include medications such as antibiotics, decongestants or antihistamines. Persistent problems, such as chronic tonsillitis, may need surgery as a final resort. Consult with an ear, nose and throat specialist.

Headache caused by diet and food

According to some studies, what we eat and when we eat it can play a significant role in headache. Different causes of diet-related headache include:

- fluctuations in blood-sugar levels, which can lead to spasm of the arteries in the head
- caffeine withdrawal, commonly caused by regular and excessive consumption of coffee or tea
- food additives, such as MSG (monosodium glutamate)
- naturally occurring chemicals in foods, such as amines.

Some other foods can cause headache in susceptible people. It is important to seek professional help. Self-diagnosis of food sensitivities can result in unnecessary diets that may not work.

It's a good idea to keep a diary of what you ate or drank in the 24 hours before a headache. This gives clues to the triggers of food-related headache. Healthcare professionals who may be able to help include a doctor, dietitian or naturopath.

Eye problems and headache

If a person has difficulties with their vision, such as long-sightedness, they tend to squint and strain their eye muscles in order to better focus their vision. Eye diseases such as glaucoma can cause headache by referring pain into the structures of the head.

Many of the eye problems that contribute to headache can be treated with prescription glasses or contact lenses. Talk to a qualified eye-care specialist such as an optometrist.

Medications and headache

Medications are designed for a particular target in the body, such as a diseased organ. However, they can also affect other areas in the body. Unwanted side effects or adverse reactions are possible with all medications, including prescription and over-the-counter medications, herbal preparations and vitamin pills.

Oral contraceptives ('the pill') can cause headache as an unwanted side effect. Hormone replacement therapy (HRT) – also known as hormone therapy (HT) – makes headaches worse for some women. Some diabetes medications can also make headaches worse.

Suggestions for reducing the risk of medication-induced headache include:

- Follow the dosage directions on the label.
- Don't mix prescription medications with drugs such as alcohol.
- Avoid dependence on painkillers.
- Report any side effects or unusual symptoms to your doctor immediately.

If you believe that medications may be giving you recurring headache, it is important to consult with your doctor. In many cases, a different medication can be prescribed.

Pain-relieving medications and 'rebound' headaches

There are many causes of recurring headache, with multiple factors working in combination. Rather than address the causes, it may seem easier to take pain-relieving medications, such as aspirin. However, taking more than

three doses of these per week could make your problem worse.

Once the medications wear off, the headache returns because the triggers remain. If you then take more pain-relieving medications, the cycle of relief and rebounding headache continues, prompting you to take ever-increasing amounts of medication.

Ear, nose and throat disorders and headache

Disorders of the ear, nose and throat that can cause recurring headache include:

- sinus problems - caused by infection, cold, flu or allergic reactions such as hay fever
- labyrinthitis - the general term for any type of inflammation of the inner ear
- infection - of the ear, nose or throat, caused by either bacteria or viruses
- trauma - such as a blow to the ear or perforation of the eardrum
- hay fever - when the immune system overreacts to irritants such as pollen
- tonsillitis - an infection most often caused by the bacterium *streptococcus*.

The nervous system and headache

Irritated, inflamed or damaged nerves can bring on a headache. Causes may include:

- haemorrhages - some health conditions, such as hypertension (high blood pressure) and diabetes, can damage the blood vessels
- infection - such as meningitis, which is inflammation of the membranes lining the brain and spinal cord
- nerve damage - can be caused by, for example, vitamin deficiencies or trauma to the head or neck
- very rarely, a tumour.

Neurologists specialise in disorders of the nerves and brain. It is rare for headaches to be caused by serious problems such as a brain tumour, but these need to be ruled out through medical examination. Usually, you will only be referred to a neurologist after all other causes of chronic headache have been investigated and eliminated. Some neurological tests include CT and MRI scans. Treatment depends on the disorder.

Cluster headache

Cluster headaches are relatively uncommon and tend to mainly affect men. Cluster headaches:

- usually involve severe pain, localised to one eye
- include other symptoms, like swelling and watering of the affected eye
- can be triggered by alcohol and cigarettes, but the underlying cause is unknown
- are treated with medication or oxygen therapy.

Diagnosis of headache

Headache can be caused by many contributing factors working together. That's why you need professional advice to investigate and properly diagnose the specific factors behind your recurring headache. In some cases, headaches may be a warning about more serious underlying problems. Tests can include scans, eye tests and sinus x-rays.

Factors that are considered when diagnosing a headache include:

- location of the pain, such as around one eye or over the scalp
- degree of pain experienced
- duration of the headache
- other symptoms, such as visual disturbances or a sore neck

- how often the headache recurs
- factors that worsen the headache, such as certain foods
- factors that improve the headache, such as massage.

Treatment for headaches

Successfully treating chronic headache usually requires a combined approach that takes all the triggers for a person into account. Ask your doctor or healthcare professional for help in treating chronic headache. Your doctor can refer you to appropriate experts, such as ear, nose and throat specialists, neurologists, optometrists and physical therapists.

Treating a headache depends on its cause. Some of the various treatments include:

- over-the-counter pain-relieving medications, such as aspirin or paracetamol
- relaxation techniques, such as massage
- changing your diet
- alternative therapies, such as acupuncture or chiropractic
- stress management
- eliminating any medications that may be causing headache as a side effect, such as birth-control pills
- medications that act on the arteries
- treatment for any underlying disorder, such as high blood pressure, neck problems or jaw problems.

Choosing a complementary therapist

In addition to conventional medical treatment, you may benefit from the help of a complementary therapist. Usually, your doctor will have a list of trusted complementary therapists. If not, suggestions include:

- Contact the professional association for your chosen therapy and ask for a list of members in your area.
- Ask your friends for word-of-mouth recommendations.
- During the first visit with your therapist, ask about their training and qualifications.
- Treat with suspicion any therapist who advises you to stop your conventional medical treatment, and consult with your doctor before stopping any medication.

Where to get help

- Your doctor
- Neurologist
- Pharmacist
- Dentist or orthodontist
- Ear, nose and throat specialist
- Eye-care professional
- Dietitians Association of Australia Tel. (02) 6163 5200
- Osteopath, physiotherapist or chiropractor

Things to remember

- Headaches are very common, with around 15 per cent of Australians taking pain-relieving medication for headache at any given time.
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