
Imaging Tests for Headaches: When you need one—and when you don't



CT and MRI examinations are called imaging tests because they take pictures, or images, of the inside of the body. Many people who have headaches want a CT scan or an MRI to find out if their headaches are caused by a serious problem, such as a brain tumor. Most of the time these tests are not needed. Here's why:

Imaging tests rarely help.

Health care providers see many patients for headaches and most of them have migraines or headaches caused by tension. Both kinds of headaches can be very painful, but a CT scan or an MRI rarely shows why the headache occurs. Having a CT scan or MRI also does not help ease the pain.

A health care provider can diagnose most headaches during an office visit. The health care provider asks you questions about your health and your symptoms. This is called a medical history. Then the health care provider may do what is called a neurological exam, which includes a test of your reflexes. If your medical history and exam are normal, usually imaging tests will not show a serious problem.

Imaging tests have risks.

A CT scan of the head uses a low radiation dose. This may slightly increase the risk of harmful effects such as cancer. Risks from radiation exposure may add up, so it is best to avoid unnecessary radiation.



The results of your CT scan or an MRI may also be unclear. This can lead to more tests and even treatment that you do not need.

When should you have an imaging test for headaches?

In some cases you might need a CT scan or an MRI. You might need one if your health care provider cannot diagnose your headache based on your neurological exam and medical history. Or you might need one if the exam finds something that is not normal.

You may also need a CT scan or an MRI if you have unusual headaches.

See your health care provider right away if:

- You suddenly develop a very severe headache which feels like something is bursting inside your head.
- Your headaches are different from other headaches you've had, especially if you are age 50 or older.
- Your headaches happen after you have been physically active.
- You have headaches with other serious symptoms, such as a loss of control, a seizure or fit, or a change in speech or alertness.

About Choosing Wisely Canada

Choosing Wisely Canada is the national voice for reducing unnecessary tests and treatments in health care. One of its important functions is to help clinicians and patients engage in conversations that lead to smart and effective care choices.

How this pamphlet was created:

This pamphlet was adapted with permission from a similar pamphlet used in the US Choosing Wisely campaign, organized by the ABIM Foundation. Modifications were made to ensure relevance for a Canadian audience. Canadian reviewers of this pamphlet included the Canadian Association of Radiologists.

This pamphlet is for you to use when talking with your health care provider. It is not a substitute for medical advice and treatment. Use of this pamphlet is at your own risk.

How can I help myself get better?

Your health care provider can advise you on how best to treat your headache. You can help most headaches by taking these steps:

Avoid triggers. Triggers are events that can cause headaches. These tips can help you avoid triggers:

If you have migraines:

- Wear tinted glasses in bright light.
- Do not skip meals.
- Avoid alcohol, meat with added nitrates (such as cold cuts), and aged cheeses (hard, dry cheeses such as parmesan).

If you have tension headaches:

- Avoid getting over tired.
- Hold your back and neck straight when you sit or stand.
- Keep your jaw relaxed (not clenched).

Quit smoking. Smoking can bring on either kind of headache.

Manage stress. Try meditation, yoga, stretching, or other activities that can help you relax.

Get plenty of sleep. Aim for six to eight hours of sleep each night. Set a regular time to go to bed and to wake up. Avoid watching TV or using a computer just before you go to bed.

Get plenty of exercise. Regular exercise, such as swimming, brisk walking, or cycling, can reduce stress and ease both kinds of headaches.

Non-prescription pain medicines such as the following can help:

- Tylenol® (or generic acetaminophen).
- Advil® (or generic ibuprofen).
- Aleve® (or generic naproxen).

You can buy all of these without a prescription. The generic versions, including store brands, cost less and are just as safe and effective as the brand-name pills. Try not to take any of these pills more than once or twice a week. Overuse can make headaches worse and cause side effects.

If your headaches are severe or happen often, there are medications which your health care provider can prescribe to help lower the pain level and/or reduce how frequently you get them.