Many people who experience severe headaches want a CT scan or MRI to see if they’re caused by a brain tumor or other serious problem. But most of the time neither test is necessary. Here’s why.

The tests rarely help diagnose the problem. Most people who seek medical help for headaches have migraines or tension-type headaches. Those can indeed be painful, and migraines sometimes come with disturbing symptoms, like visual changes. But all that’s usually needed for doctors to diagnose those and other common headaches is a careful medical history and a neurological exam, which typically tests such things as your reflexes. Adding a CT scan or MRI rarely shows why a headache occurs or helps you manage its symptoms. And research shows that for people with a normal medical history and neurological exam, imaging tests are unlikely to reveal a more serious underlying problem.

They can pose risks. One possible risk is that they will show something that appears to be worrisome but actually isn’t. For example, in some cases doctors might mistake a more prominent area of a person’s brain for a tumor, or a twist in a blood vessel for a brain aneurysm. Those findings can cause anxiety, trigger follow-up tests, prompt referrals to specialists for expensive consultations, and even trigger unnecessary treatment. And CT scans of the head can deliver a radiation dose the equivalent of 25 to 300 chest X-rays, according to
How to treat a headache

Most can be eased by taking these steps:

**Avoid triggers.** If you have migraines, wear tinted glasses in bright light, don't skip meals, and eliminate food that you suspect may cause them, such as aged cheese, alcohol, and meat containing nitrates. For tension headaches, avoid fatigue, poor posture, and jaw clenching. Quit smoking if you have either type of headache.

**Manage stress.** Try meditation, yoga, stretching, or relaxation techniques.

**Get adequate sleep and exercise.** Aim for 6 to 8 hours of slumber by setting a bedtime and wake-up time and avoiding television or using a computer before sleep. Regular physical activity, such as swimming, cycling, or brisk walking, can ease migraines and reduce stress.

**Consider medication.** Over-the-counter acetaminophen, ibuprofen (Advil and generic), or naproxen (Aleve and generic) can relieve tension headaches and mild migraines. So can pills that combine aspirin, acetaminophen, and caffeine (Excedrin Migraine and generic). But using them more than once or twice a week can cause rebound headaches and other problems, so don't turn to them too often. For more severe migraines, triptans such as sumatriptan (Imitrex and generic) and rizatriptan (Maxalt) can help ease attacks. Beta-blockers such as propranolol (Inderal and generic) can prevent them.

They can add needless expense.
A standard brain CT scan should cost about $340, according to HealthCareBlueBook.com. One with a contrast agent to make a clearer image is about $840. A standard brain MRI costs about $660; one with a contrast agent, about $970. That doesn’t include charges for subsequent treatment prompted by uncertain results.

**When are the tests warranted for headache?** They might be considered if you get an abnormal result from a neurological exam or your doctor can’t confidently diagnose your headache based on your symptoms and exam. And call your doctor if you have headaches that are:
• Sudden or explosive.
• Different from other headaches you’ve had in the past, especially if you’re 50 or older.
• Brought on by exertion.
• Accompanied by fever, seizure, vomiting, a loss of coordination, or a change in vision, speech, or alertness.

a recent study. While the risk from any single exposure is uncertain, the harmful effects of radiation may be cumulative, so it’s best to avoid it when you can.

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