



NANOS

Patient

Brochure

Transient Visual Loss

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NANOS Patient Handout

Transient Vision Loss

What is transient vision loss?

Vision loss that is temporary (transient) is a common problem and has many potential causes. A neuro-ophthalmologist is often helpful in narrowing down where the problem is coming from as well as the possible causes.

Patients with temporary vision loss often do not have any abnormalities on their eye examination, especially once the vision has returned to normal. Your doctor will need to rely on your description of the vision problem to help determine what testing needs to be performed and what the possible causes may be.

What questions might my doctor ask me about my transient vision loss?

1. Was the vision problem in the left eye, right eye, or both eyes? The only way to truly know is to cover each eye separately during a vision loss episode. This information helps your doctor know where the vision problem could be coming from.
2. How long did the vision problem last (i.e., seconds, minutes or hours)?
3. How many times has it happened? If it is recurrent, how often does it happen and is it the same type of symptom(s) every time?
4. Was it a loss of part or all of the vision, or a different problem, such as blurring or distortion?
5. Can you think of anything that seems to make the vision problem happen, or go away?
6. Were there any other symptoms during the event, such as flashing lights, seeing a zig-zag pattern, pain, or a headache?
7. Did the vision problem start suddenly, or gradually?
8. If the episodes only involve one eye, is it always the same eye, or have they occurred in either eye?
9. Does the vision problem always recover completely, or has it ever left a vision problem that has stayed?

What are possible causes of my temporary vision problem?

Migraine

Migraine can cause a temporary vision problem involving both eyes that classically involves flickering, shimmering or zig-zag lines in an arc shape (Figure 1) that may slowly enlarge or shrink over a period of minutes with an area of associated vision loss. The vision problem is often followed by a headache with nausea and sensitivity to light and sound, but not always. Some patients with vision problems from

migraine do not have a headache. Patients often have blurry vision during a migraine. Migraine can be diagnosed if the history of the condition is classic, or may require some specialized testing to rule out other conditions. Patients with migraine may have other family members with migraine and may have specific triggers for their migraine attacks. Migraine does not result in any permanent vision loss, but if the symptoms are bothersome, medications can be taken to help an attack resolve after it has started, or a daily medication can be taken to help prevent migraine attacks.

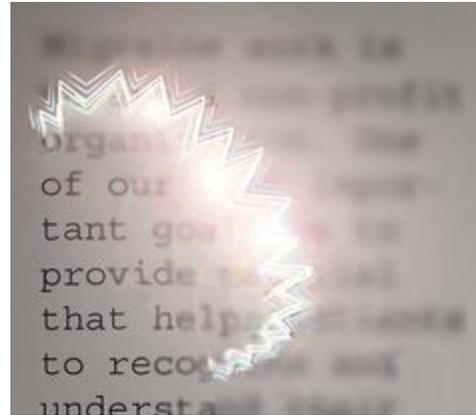


Figure 1. Simulation of a migraine visual aura.

Blood Flow Problem (Vascular)

Sometimes, a vision problem may be the result of an interruption of blood flow to a part of the eye, nerves, or brain. If your doctor suspects this, you may have testing performed to look in detail at the blood vessels that supply the suspected area to see if there is any abnormality.

Some patients have temporary vision loss from vasospasm (temporary contraction of muscles in the blood vessel wall) in the retina (back part of the eye). These events do not leave any permanent vision changes, but can be frightening. Frequent attacks can be treated with calcium-channel blocking medications, which can help reduce the blood vessel wall contractions.

Rarely, patients over the age of 50 can have temporary vision loss related to inflammation of blood vessels in a condition called giant cell arteritis (GCA), also known as temporal arteritis (Figure 2). Associated symptoms include pain with chewing, headaches, scalp tenderness, pain over the side of the head, muscle aches, loss of appetite, fevers, and low blood counts (anemia). Patients with these symptoms should be seen by a healthcare provider urgently, as this condition is considered an emergency and may result in permanent blindness in

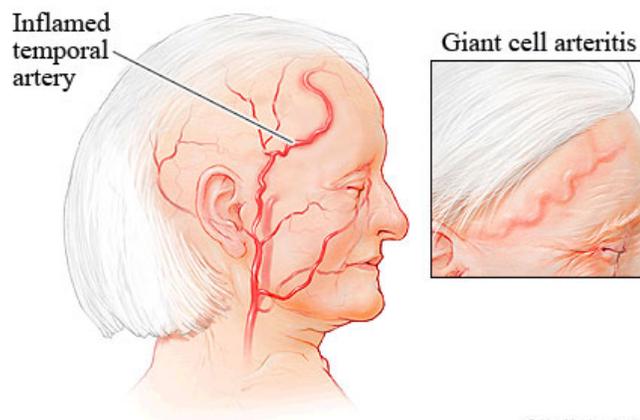


Figure 2. Blood vessel changes that may occur with giant cell arteritis. Illustration courtesy of webmd.com.

one or both eyes, stroke, or heart damage, as well as other complications. GCA can be successfully treated with oral or intravenous steroids, but may require treatment for an extended period of one year or more. Blood testing and a biopsy of the temporal artery can help diagnose this condition, but treatment begins urgently in suspected cases, even before the diagnosis is confirmed.

Patients with swelling or crowding of the area where the optic nerve meets the eyeball (optic disk) can have temporary vision dimming or loss, especially with position changes, coughing, or sneezing. Your doctor can help you know how best to treat this kind of vision problem.

Eye Surface Problems

Drying of the eye surface disturbs light that enters the eye and can be experienced as a temporary vision problem that may be worse with activities that require concentration and may decrease your blink rate, such as driving, reading, or watching television. The vision problem may improve with blinking or rubbing the eye. Dry eyes can often be effectively treated by using artificial tears multiple times per day in both eyes. Related conditions include inflammation of the eyelids (blepharitis) or clogging of the glands that supply oil to the tear film (meibomian gland dysfunction), which can be treated with warm compresses over the eyes, or lightly scrubbing the edge of the eyelids with a cotton swab and tear-free baby shampoo.

Rarer Causes of Temporary Vision Loss

In patients with a history of seizures related to a specific brain abnormality, such as a tumor or malformation, seizures can cause a vision disturbance with hallucinations of shapes or colors followed by a partial loss of vision in both eyes. The loss of vision recovers over minutes to hours.

Patients with a history of optic neuritis or multiple sclerosis and prior vision damage may experience a worsening of vision in the setting of excessive heat or exercise. This is called Uhthoff's phenomenon and does not indicate any new damage to the vision.

What will my doctor find during my eye examination?

The eye examination is often normal in patients with a temporary vision problem. However, a careful eye examination may still reveal abnormalities that help narrow down the possible causes of a temporary vision problem. Your doctor will talk to you about any abnormalities during your examination and what they mean.

What additional testing may be required?

Visual Field Testing

This test evaluates your side vision to determine if any of your vision events have left any remaining abnormality (Figure 3). This testing is important, since you may not be fully aware of vision loss on the sides (periphery) of your vision.



Figure 3. A typical visual field machine.

Fluorescein Angiography

This imaging technique involves giving a yellow dye through an IV in the arm, and a camera is set up to take images of the blood vessels in one or both eyes over several minutes. Your doctor is then able to see how the dye fills the blood vessels, to see if there is an abnormality of the blood vessels in the back of the eye (retina).

Computed Tomography Angiography (CTA), Magnetic Resonance Imaging or Angiography (MRI/MRA)

CTA and MRA are imaging techniques that usually involve a contrast dye injected into the veins that circulates into the arteries, at which time pictures of the blood vessels are taken, usually in the head and neck in patients with vision loss. This provides information about any blood vessels that may be blocked, narrowed, or have another abnormality that could affect vision. An MRI of the brain and/or eye sockets (orbits) may be helpful in looking for evidence of recent or prior strokes or other abnormalities in the brain or eye sockets that could be related to the vision problem (Figure 4).



Figure 4. MRI scanner

Carotid Artery Ultrasound

This is an ultrasound of the large arteries in your neck (carotid arteries). The ultrasound can check for abnormal narrowing of the artery, which can be associated with clots forming on the artery wall that may travel to the eye or brain.

Cardiac Echocardiogram

This is an ultrasound of the heart that can look for any evidence of a clot or other heart abnormality that could temporarily block off a blood vessel in the head or eye and cause vision loss.

Blood Testing

Blood testing can be helpful in some cases by looking for evidence of inflammation in the body, an abnormal tendency toward blood clotting, or evidence of a specific disease or condition suspected by your doctor.

What are treatment options?

Treatment of your temporary vision problem depends on what is causing it. Some conditions are benign and have no specific treatment, while others may benefit from taking a medication or from a surgical procedure. Your doctor will talk to you about what treatment is right for you.