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Seeing Sparkles of Light: Photopsia Causes and Treatments

See stars and light that looks like glitter is usually, but not always, harmless

By [Troy Bedinghaus, OD](#) | Updated on March 28, 2023

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Table of Contents

[Why It Happens](#)


[Most Common Cause](#)

[Less Serious Causes](#)

[More Serious Causes](#)

[Treatment](#)

[VIEW ALL](#)

Seeing sparkles of light that resemble glitter, sometimes referred to as or "seeing stars," is a phenomenon known as photopsia . These and similar visual disturbances, like seeing bands of light, prisms, sparks, or flashes, are usually caused when temporary pressure is placed on the eye, such as when you sneeze hard.

It can also occur as the result of a [migraine headache](#), brain-related circulation problems, or medical conditions affecting the [retina](#) of the eye or the gel-like substance within the eye called the [vitreous](#).

This article describes possible causes of photopsia, both common and uncommon, and explains exactly what happens when you seeing sparkles of light.

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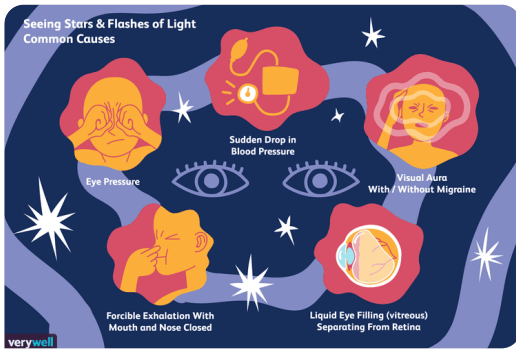
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Learn More: [What Are the Most Common Causes of Vision Loss?](#)

Why Am I Seeing Stars?

When the lining in the back of the eye (retina) senses light, it sends a message to the [optic nerve](#). The optic nerve relays the message to the brain, which then identifies the image.

When you are seeing stars or sparkles, something other than visible light is stimulating the retina. These false flashes are known as [phosphenes](#)  .

Phosphenes can be triggered by pressing the eyes. They can also happen when neurons in the eye or the

brain are stimulated.^[1]

Learn More: [Can Dry Eyes Cause Floaters?](#)

Common Cause of Seeing Sparkles of Light

Pressure on your eyes is the most common cause of seeing stars. The flashes of light that look like glitter can be caused by pressure inside the eye or brain.

For example, you might see stars when you:

Rub your eyes

Sneeze

Cough

Strain

Vomit

This usually only lasts for a few seconds and is not a health concern.

See a healthcare provider for an evaluation if you see stars for longer than a few seconds or often.

Related: [Does Your Heart Stop When You Sneeze?](#)

Less Serious Medical Causes of Seeing Stars

When you see stars for a prolonged period or frequently, there are a number of possible reasons why this may be occurring. Here are some of the least dangerous conditions associated with seeing glitter-like specks of light.

Posterior Vitreous Detachment

[Posterior vitreous detachment](#) (PVD) is a common condition caused by aging that can cause you to see stars in your vision.

The vitreous is a jelly-like filler inside the eyeball. It keeps the eyeball plump and round. The vitreous is attached to the retina. With normal aging, the vitreous becomes less firm. It can start

to shrink and tug on the retina.

If the pulling is strong enough, the vitreous can separate from the retina. When this happens, it can cause a person to see floaters, flashes of light, or stars. ^[2]

Vision disturbances caused by PVD can look like streaks of light, usually at the side of the field of vision ([peripheral vision](#)). ^[3]

PVD can cause damage to the retina. Even though it can be a normal part of aging, you need to tell your provider if you have any symptoms of PVD so they can monitor you closely.

Learn More: [What Are Eye Floaters?](#)

Migraines

Seeing stars can also be part of the visual changes (auras) that are a common symptom of [migraine](#) headaches.

An aura typically lasts about 20 to 30 minutes, then goes away on its own without any

treatment.

5 Types of Migraine Auras Visualized and Explained

With some migraines, a visual aura happens without any pain. These are called **ocular migraines**. The aura can affect one or both eyes.

If you're having an ocular migraine, you may see:

Rainbow-like colors

Flashes of light

Stars

Zig-zag lines

[Blind spots](#)^[4]

If you see sparkles and then get a headache, the episode would be [diagnosed as a migraine](#). If you see them without pain, it would be called a [migraine without a headache](#).^[5]

Learn More: [What Is a Migraine Aura Like?](#)

More Serious Medical Causes

Sometimes a more serious condition can cause you to see stars. Those discussed in detail here include:

Retinal disorders

Brain-related causes

Wet macular degeneration

Diabetes

Preeclampsia

Retinal Disorders

You may see stars if you have problems with the retina of your eye. You may see stars, flashes, or bands of light if you have a condition like [retinal detachment](#), which occurs when the retina pulls away from its normal position in the eye.

The symptoms of retinal detachment include:

Flashes or sparkles of light in one or both eyes

A dark shadow that seems like a curtain covering part of [your field of view](#)

An increase in floaters (small dark spots or squiggly lines)

that float across your field of vision)

The symptoms of a detached retina come on quickly and are a medical emergency. If you think you may have a detached retina, go to the ER for immediate medical attention.

Learn More: [How to Tell If You Have a Detached Retina](#)

Brain-Related Problems

It's not common but seeing stars can sometimes be a sign of a problem in the areas of the brain that handle vision.

Blood vessel disease

(**cerebrovascular disease**):

This is a condition that affects the blood vessels and can cause less blood supply to the brain. When the brain isn't getting enough blood, it may not function well.

Systemic low blood

pressure: Abnormally low blood pressure can also cause

less blood to flow to the brain.

Postural hypotension: This is a sudden drop in blood pressure. The decrease in blood supply can make a person see stars or flashing lights for a few seconds. Postural hypotension can happen in someone who already has [high or low blood pressure](#) when they lie down or stand up too fast.

Concussion: A head injury that causes the brain to move around in the skull. This serious condition can cause vision issues as well as a number of other problems.

Learn More: [Can Low Blood Pressure Make You See Stars?](#)

Wet Macular Degeneration

This is an advanced form of [age-related macular degeneration](#) (AMD), which is a condition that leads to central vision loss.

In [wet macular degeneration](#), abnormal blood vessels grow under the macula, which is

the part of the eye that helps you see fine detail. This damages the macula quickly unlike the dry version of the disease, which leads to slower vision loss. ^[6]

People with wet AMD can experience visual distortions, such as seeing sparkles of light or straight objects appearing to bend.

While macular degeneration is the leading cause of vision loss in adults 60 and older, wet AMD is less common. It occurs in roughly 10% to 15% of people with AMD. ^[7]

Related: [Facts About Age-Related Macular Degeneration](#)

Diabetes

Some people with diabetes may develop [diabetic retinopathy](#), which is a condition that occurs when a buildup of sugar in the blood damages tiny blood vessels in the retina.

These blood vessels (or abnormal ones that grow to take their place) can leak blood and other fluids into

the macula or back of the eye, causing vision to blur. You may also begin seeing sparkles of glitter-like light. ^[8]

This is a serious eye condition that can result in extensive vision loss, but there are several ways to treat it. ^[8]

Preeclampsia

Preeclampsia is persistent high blood pressure that develops during pregnancy, usually after week 20.

In addition to symptoms like headaches and abdominal pain, people with preeclampsia may experience blurry vision or see flashing lights. This may be due to an irritation of the central nervous system or may signal a swelling of the brain. ^[9]

You can catch preeclampsia early by making regularly visits to a healthcare provider during pregnancy and looking out for vision changes and other symptoms.

Treatment for

Seeing Sparkles of Light

Treatment for seeing stars will depend on what's causing it:

Posterior vitreous

detachment: No treatment is needed if there's no damage to the retina. If the retina is damaged, treatment options include using a laser or cryopexy (freezing treatment) to seal the retina to the wall of the eye. ^[10]

Migraine: Treatment options include both over-the-counter and prescription drugs, as well as lifestyle changes such as losing weight and implementing stress management techniques. ^[11]

Retinal disorders:

Treatment for a retinal disorder will depend on the type, severity, and location of your retinal detachment. Some options to repair it include lasers, cryotherapy (freezing), and pneumatic retinopexy, which is injecting

your eye with a gas bubble that moves the retina back in place. ^[12]

Blood vessel disease: Your healthcare may recommend a healthier diet and exercising regularly.

Low blood pressure: You may not need treatment for this, but some strategies to raise blood pressure may include drinking more water, adjusting how and when you eat, or taking medication.

Concussion: It's important to take care of yourself while recovering from a concussion. This means getting plenty of sleep and avoiding certain physical activities for at least a couple days. Pain relievers can also help symptoms. ^[13]

Preeclampsia: Healthcare providers will monitor you closely to watch for concerning signs, including dangerously high blood pressure or signs of organ failure. Medications may be taken to lower blood pressure in some cases, or delivery may be recommended if the condition becomes

dangerous. ^[14]

Summary

Seeing sparkles of light and similar visual disturbances is known as photopsia. The individual flashes of light are called phosphenes.

Usually, seeing stars is due to temporary pressure on the eye. This is typically harmless and only lasts for a few seconds. However, if you see stars often or they last for a long time, see your provider. You may need treatment for an underlying cause like migraine or a retinal disorder.

Learn More: [Vision Changes From a Stroke](#)

FREQUENTLY ASKED QUESTIONS

Is it normal to see stars randomly?

If you see stars or sparkles in your vision from time

to time and it only lasts a few seconds, it's probably nothing to worry about. This often happens after rubbing the eyes or with brief changes in blood pressure.

Why do I see stars when I stand up?

This is due to the effects of orthostatic hypotension, or low blood pressure that occurs when you stand after sitting or lying down. This is common during growth spurts and in thin people with low blood volume. However, it can also be a sign of a serious illness like

Parkinson's disease. [\[15\]](#)

Why do migraines cause vision problems?

Ocular migraines can cause you to see twinkling lights or even have temporary blindness. This type of migraine might be caused by unusual electrical activity in the brain, disturbances in the back of the eye, or changes in blood flow to the retina. [\[5\]](#)

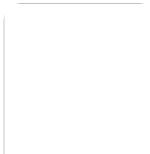
Is it normal to see stars after hitting your head?

If the [part of the brain](#) that processes visual

information (visual cortex) is affected, you may see stars or have other symptoms like double vision. About 90% of people with brain injuries have vision problems. ^[16]

Read Next: [Vision Problems After Hitting Your Head](#)

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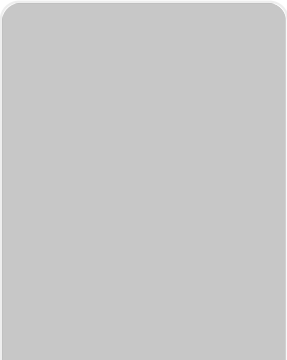
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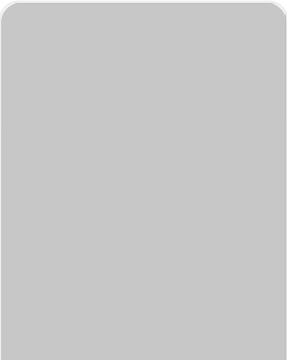
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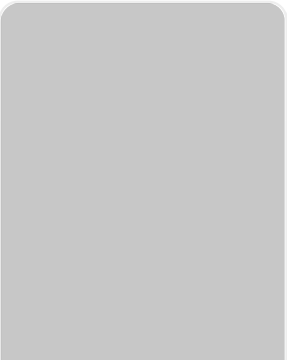
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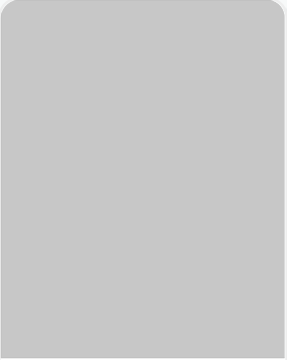
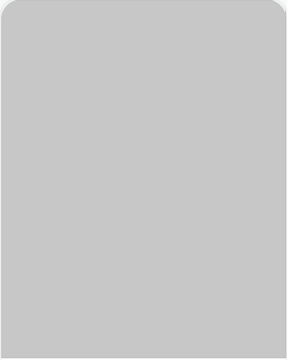
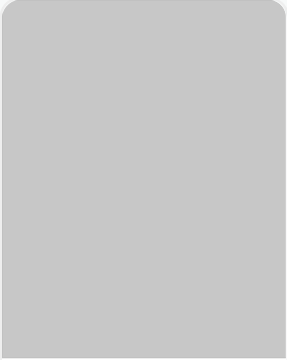
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