



## **Photosensitivity and Seizures**

Photosensitivity is an abnormal clinical or electroencephalographic (EEG) response to light. Photosensitive seizures are provoked by exposure to flashing lights at certain intensities or to certain visual patterns.

Seizures in photosensitive people may be triggered by exposure to television screens due to the flickering or rolling images, computer monitors, certain video games or TV broadcasts containing rapid flashes or alternating patterns of different colors, or to intense strobe lights like visual fire alarms. Also, seizures may be triggered by natural light, such as sunlight, especially when shimmering off water, flickering through trees or through blinds. Certain visual patterns, especially stripes of contrasting colors, may also cause seizures.

Many people are unaware that they are sensitive to flickering lights or to certain kinds of patterns until they have a seizure. They may never go on to develop epilepsy, which is characterized by recurrent seizures, though a seizure may be triggered by certain photic conditions. Many individuals who are disturbed by light exposure do not develop seizures but experience other symptoms such as headache, nausea, dizziness and more.

Among people with epilepsy, only an estimated 3-5% have seizures triggered by light or patterns. People with photosensitive epilepsy usually develop the condition before the age of 20 years, with it being most common between the ages of 9 and 15 years. More females than males have photosensitive epilepsy. There is also evidence of a genetic factor in this condition.

The frequency or speed of flashing light that is most likely to cause seizures varies from person to person. Generally, flashing lights most likely to trigger seizures are between the frequency of 5 to 30 flashes per second (Hertz).

The tendency to photosensitivity is usually detected by recording the EEG response to flashing lights and from personal experience. Ask your doctor or specialist whether you are at risk of seizures from flashing lights as this varies from each individual.

### **Tips for people with known photosensitivity:**

#### **Television Screens**

- Watch television in a well-lit room to reduce the contrast between light from the set and light in the room.
- Reduce the brightness of the screen.
- Keep as far back from the screen as possible.
- Use the remote control to change channels on the TV to avoid getting too close.
- Avoid watching for long periods of time.
- Wear polarized sunglasses while viewing television to reduce glare.



## **Videogames**

- Sit at least 2 feet from the screen in a well-lit room.
- Reduce the brightness of the screen.
- Do not let children play videogames if they are tired.
- Take frequent breaks from the games and look away from the screen every once in a while.
- Cover one eye while playing, alternating which eye is covered at regular intervals.
- Turn the game off if strange or unusual feelings or body jerks develop.

## **Computer Monitors**

- Use a flicker-free monitor (LCD display or flat screen).
- Use a monitor glare guard.
- Wear non-glare glasses to reduce glare from the screen.
- Take frequent breaks from tasks involving the computer.

## **Exposure to Strong Environmental Lights**

- Cover one eye with one hand and turn away from the direct light source.

Although the flash rate of strobe lights is often restricted, some people with photosensitive epilepsy may find strobe lights could trigger a seizure. Clubs with strobe lights and other places where flashing lights are likely to be encountered (such as some amusement park attractions) may require caution. Other triggers such as stress, excitement, alcohol or tiredness may contribute to the possibility of seizures. If flashing or flickering lights come on without warning, immediately cover one eye with the palm of your hand.

An online brochure about Photosensitive Epilepsy is available at: [www.epilepsy.org.uk/info/photosensitive](http://www.epilepsy.org.uk/info/photosensitive)

Approved for circulation in January 2009 (sp)

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