

# EPILEPSY AND PHOTOSENSITIVITY

- Epileptic seizures can sometimes be triggered by flashing or flickering lights or certain geometric patterns. This condition is known as photosensitive epilepsy.
- Such seizures can only be provoked in a person who is already sensitive or susceptible to such triggers, or who already has epilepsy.
- Both natural and artificial light sources can trigger parts of the brain into acting abnormally, which can lead to a seizure.
- Flashing lights, television, visual display units (VDUs), computer games and disco lighting DO NOT in themselves make a person photosensitive or cause epilepsy.
- Approximately 5% of people with epilepsy are photosensitive.
- Photosensitivity affects more girls than boys and appears to be most common between the ages of 12 and 16. Most children who are photosensitive will grow out of it by their early or mid-twenties.
- Over 30% of people with juvenile myoclonic epilepsy are photosensitive.
- Tonic clonic seizures are the most frequent type of seizure induced by flickering lights and television, sometimes preceded by myoclonic jerks.
- Seizures are rarely triggered by films in a cinema unless there is some photic stimulation, e.g., strobe or flashing lights

## TRIGGERS

Common seizure triggers for people with photosensitive epilepsy include:

- Lights flashing at a rate of 5-30 flashes per second, including strobe lights and faulty fluorescent lights.
- Television, video games and computer graphics.
- Sunlight shining through a row of trees or reflecting off water.
- Strongly striped or geometric patterns.
- Faulty TV sets, poorly tuned TV channels.

Other factors can also contribute to photosensitivity:

- The brightness of the stimulus.
- The area of the field of vision exposed, e.g., watching a large screen TV or sitting too close to a VDU increases the risk of a seizure occurring.
- Length of exposure to the stimulus, e.g., playing computer games for long periods.
- Environment, e.g., strobe lights are more likely to trigger a seizure if the room is dark.
- Tiredness, effects of alcohol or other recreational drugs.

## SIMPLE PRECAUTIONS

- Consult an optician for advice on light-responsive or polarised glasses to reduce glare.
- In discos, pubs or clubs, be aware of and avoid long exposure to flashing lights – take regular breaks from heat and noise. Do not become dehydrated – drink plenty of water.
- Avert direct gaze when passing through lines of trees, railings or road markings, especially on sunny days.

### When using a TV or a VDU

- Make sure the room is well lit and place a subdued light on top of the TV to balance the brightness of the screen.
- High frequency screens (e.g., 100Hz) are less likely to trigger seizures. Flatscreen or LCD (liquid crystal display) units don't flicker at all.
- Make sure the screen is at least 2.5 metres (8 feet) away and sit level with the screen rather than below it.
- Change channels with a remote control or cover one eye to reduce the flicker effect if you have to go near the TV while it's switched on.
- Avoid watching the screen while fast forwarding or rewinding video tapes.
- Take frequent regular breaks away from the screen: 5 minutes every 30 minutes if you're watching TV, and 5 minutes every 15 minutes if you're playing computer games.

Switch off immediately if you feel uncomfortable in any way – dizzy, blurred vision, muscles twitching.

### Treatment and management

- An EEG test will include a flashing light test (photic stimulation) and should confirm whether you have photosensitive epilepsy.
- Some anti-epileptic drugs (especially sodium valproate) can be effective in preventing photosensitive seizures.
- Be aware of your own seizure triggers and take preventive measures where possible.
- Make sure teachers, employers and carers know how epilepsy affects you and suggest preventive measures that can be put in place to support you.

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