

What is Photosensitive Epilepsy Testing (PEAT Scan)?

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What is PSE Testing?

PSE stands for Photosensitive Epilepsy. PSE testing is needed to check online videos for flashing, blinking, colors, and luminosity that can trigger a seizure in people with [Photosensitive Epilepsy](#).

Definitions

- **PSE:** Photosensitive Epilepsy
- **PSE Test:** Test to check if videos could trigger a photosensitive-related seizure.
- **Potentially Harmful Flashing:** Rapidly blinking, flickering, or flashing patterns of high-contrast visual content that can trigger seizures and vestibular symptoms. Alternating darks with bright whites (luminance) and flashing reds are common problems.
- **PEAT:** Photosensitive Epilepsy Analysis Tool.
- **PEAT Scan:** The resulting wave analysis provided by the PEAT software.

Why Should I Care About Flashing Video Content?

People with general epilepsy or photosensitive epilepsy can experience seizures when exposed to Potentially Harmful Flashes of light and color in video. People could end up sick, hospitalized, experience long-term symptoms, or potentially die.

Additionally, intense flashing can also trigger vestibular disorder symptoms such as migraines, vertigo, spinning sensations, and imbalance.

Am I Required to Do PSE Testing?

You should always run a PSE test on any video you plan to share with the public or within the university community. Especially if you have potentially harmful flashing content in your video, such as:

- Fast-moving content.
- Scene cuts with high contrast, such as dark colors to light colors, especially cuts to white or bright scenes.
- Flickering or flashing red colors.
- Spinning or "roller coaster" movements.

What Laws are Related to PSE Testing?

American University must conform to Section 508 for web accessibility; this includes the [Web Content Accessibility Guidelines \(WCAG\)](#), Levels A and AA.

For details about understanding and meeting the requirement, see WCAG [Success Criterion 2.3.1: Three Flashes or Below Threshold \(Level A\)](#).

How Do I Run A PSE Test (PEAT Scan)?

The best time to run PSE tests is during the video production process. The video production service hired to create the video should have access to video Quality Control (QC) software or service required to run PSE Testing.

For "after the fact" testing of videos already published on a website, The University of Maryland Trace Center provides the [Photosensitive Epilepsy Analysis Tool \(PEAT\)](#) software for testing videos.

- PEAT is for non-commercial use only.
- It only works on Windows operating systems.
- PEAT scans can sometimes be a bit tricky to use; learn [How to run a PEAT Scan](#).

What Do I Do If A Test Fails?

In most cases, fixing harmful flashes is not a DIY project. You usually need to work with your video production service to edit the video to resolve any issues.

Although slowing down the speed of the video will help reduce the impact of harmful flashes, it does not always address flashing related to high contrast or luminance.

See Photosensitive Epilepsy and Online Content by [Epilepsy Action](#) for descriptions of other possible techniques to help reduce the impact of harmful flashes.

How Do I Prevent Potentially Harmful Flashes From Occurring in My Video?

- When you hire a service or company to produce your video, tell them that American University must conform to Web Content Accessibility Guidelines (WCAG), Levels A and AA. Specifically, WCAG [Success Criterion 2.3.1: Three Flashes or Below Threshold \(Level A\)](#).
- Ask your video service or company which Quality Control (QC) software or platform they use for PSE testing. If the video service or company is not familiar with video QC software or PSE testing, here are some examples of services. AU **does not** endorse, partner with, or promote these services:
 - [Harding FPA](#)
 - [LMH Media](#)
 - [Interra Systems](#)
 - [Telestream](#)
 - [PSE Check](#)
 - [Venera Technologies](#)

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