

Digital Eye Strain: Symptoms and Solutions



After using digital media all day, are your students making comments related to their vision?



Are they experiencing the following symptoms?



Headaches



Blurred Vision



**Dry or Itchy
Eyes**



Eye Fatigue

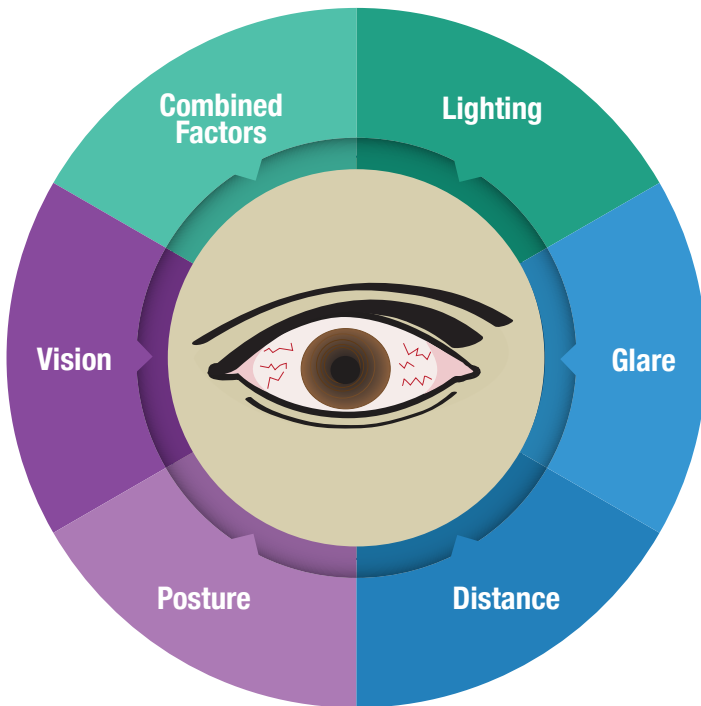


**Neck and
Shoulder Pain**



Eye Twitch

If yes, your students are probably experiencing digital eye strain.



Symptoms may be caused by:

- Poor lighting
- Glare on a digital screen
- Improper viewing distances
- Poor seating posture
- Uncorrected vision problems
- A combination of these factors

Here are some solutions:

Implement the **20/20/20** Rule



Take a **20-second** break



to stare at something **20 feet** away



every **20** minutes

- Take frequent breaks (e.g., set an alarm, use an app, close your eyes, look at something far away)
- Invert screen color (e.g., Windows, Chromebook, iPhone/Pad)
- Adjust brightness settings (e.g., Windows, Mac, iPhone/Pad)

- Reduce glare from overhead lights and windows (e.g., amount of lighting, placement of lighting, placement of device in relation to windows)
- Adjust font size and type to a legible font

Poor Legibility	Enhanced Legibility
<p>Font sizes that are 10 point or smaller can be difficult to read. (10 point, 9 point, 8 point, 7 point)</p>	<p>Font sizes that are 11 point or larger are easier to read. (11 point, 12 point, 13 point, 14 point)</p>
<p>Light and thin fonts can be difficult to read. (light font example, thin font example)</p>	<p>Regular, book, medium, and semibold fonts are easier to read. (regular/book, medium/semibold)</p>
<p>Script fonts can be difficult to read. (<i>script font example, script font example</i>)</p>	<p>Preferred fonts using the italic face are easier to read. (<i>italic font sample, italic font sample</i>)</p>
<p>All caps type and small caps type can be difficult to read, particularly in paragraphs. (ALL CAPS SAMPLE, SMALL CAPS SAMPLE)</p>	<p>Initial caps are easier to read. (Initial Caps Sample)</p>
<p>Light-colored text on a light background can be difficult to read. (yellow, orange, pink)</p>	<p>Dark-colored text on a light background is easier to read. (black, dark blue, dark green, dark brown)</p>
<p>Dark-colored text on a dark background can be difficult to read. (black, dark blue, dark green, dark brown)</p>	<p>Light-colored text on a dark background is easier to read. (white, yellow, orange, pink)</p>

Recommended PC Fonts	Recommended Mac Fonts
Arial	Helvetica
Calibri	Palatino
Verdana	Lucida Grande
Tahoma	Times New Roman

continued . . .

- Consider posture and device placement (i.e., Keep devices directly in front, about an arm's length away so that the top of the screen is at or just below eye level)
 - Increase audio options (e.g., audiobooks, built in text-to-speech such as Microsoft Edge Immersive Reader, Adobe Reader Read Out Loud, Chromebook ChomeVox)
 - Consider using the universal design for learning (UDL) to increase access to alternative media.
 - Participate in routine eye exams (e.g., annual or bi-annual)
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Commonwealth of Pennsylvania

Tom Wolf, Governor

