

# 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**

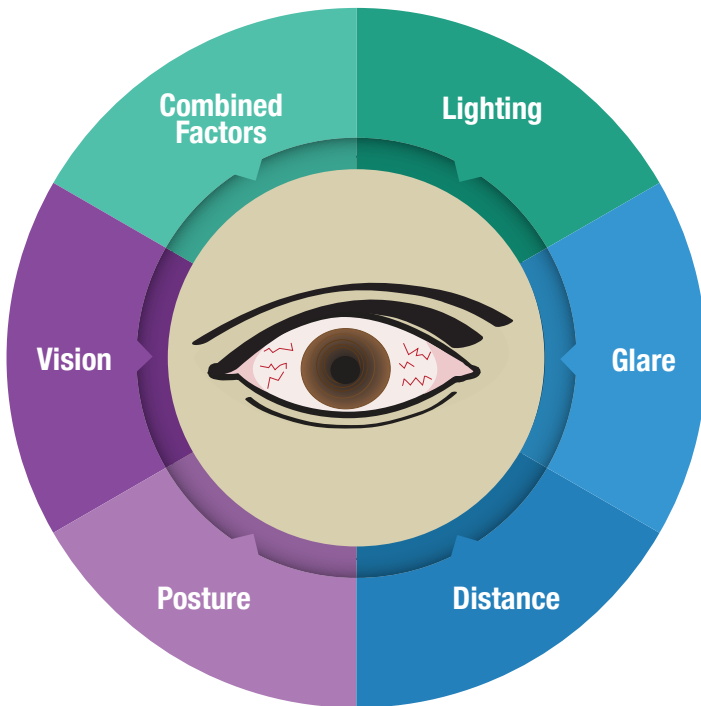


**Neck and Shoulder Pain**



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

| 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

Josh Shapiro, Governor

