

**Digital Eye Strain Syndrome Among Higher Education Health Sciences Students in Saudi Arabia: Severity and Preventive Ergonomic Practices.**

<b>Sociodemographic data</b>
<b>1. Age.....</b>
<b>2. Gender</b>
- Male
- Female
<b>3. Residence</b>
- Riyadh
- Jeddah
- Dammam
<b>Medical history</b>
<b>4. Do you have a chronic disease?</b>
- Diabetes
- Hypertension
- Thyroid gland problems
- Others .....
<b>5. Do you have an eye problem?</b>
- No
- Yes
- If yes, mention it.....
<b>6. Do you have a history of eye surgery?</b>
- No
- Yes
<b>7. Do you wear glasses?</b>
- No
- Yes
<b>8. Do you use medication daily?</b>
- No
- Yes
- If yes, mention it.....
<b>Digital devices use data</b>
<b>9. Duration of digital device use in years.....</b>
<b>10. Which of the following devices are used more daily?</b>
- Desktop computer
- Laptop
- Tablet
- Smartphone
<b>11. How many average daily hours are spent in digital device use?.....</b>
<b>12. Do you use protective eyeglasses during digital device use?</b>
- No
- Yes
<b>13. Do you use eye lenses during digital device use?</b>
- No
- Yes
<b>14. What is the duration of screen use without a break (in minutes)?.....</b>

<b>15. What is your preferred method of studying?</b>
- Mainly printed paper
- Mainly digital screen
- Both are equally used
<b>16. How many virtual classes hours per week?</b>
- Less than 2 hours
- From 2 to 9 hours
- 10 or more hours

### **Digital eye strain syndrome questionnaire**

By choosing the appropriate number, please indicate the extent to which you experience these symptoms (frequency and severity), especially during or after using a digital device for a long period during the past month.

Don't forget: If you choose “Never” in the frequency section, don't select medium or severe in the severity section.

<b>Symptoms</b>	<b>Severity</b>		<b>Frequency</b>		
	<b>Severe (2)</b>	<b>Medium (1)</b>	<b>Often or always (2)</b>	<b>Occasional (1)</b>	<b>Never (0)</b>
<b>Vision-related symptoms</b>					
1. Blurred vision					
2. Double vision					
3. Difficulty focusing for near vision					
4. Increased sensitivity to light					
5. Colored halos around objects					
6. Feeling that eyesight is worsening					
<b>Eye related symptoms</b>					
7. Eye pain					
8. Heavy eyelids					
9. Burning					
10. Itching					
11. Redness					
12. Dryness					
13. Tearing					
14. Excessive blinking					
15. A feeling of a foreign body in the eyes					
16. Headache					

### Preventive ergonomic practices scale

Choose the appropriate answer for your preventive ergonomic practices against eye strain when using digital screens (computer - tablet - laptop - mobile) by choosing the appropriate number.

	Never	Rarely	Sometimes	Often	Always
<b>Location of digital screen</b>					
1. Do you place the device screen approximately 15-20 cm below eye level from the center of the screen?	1	2	3	4	5
2. Do you place the device screen 45-70 cm from the eye?	1	2	3	4	5
<b>Display settings</b>					
3. Do you keep your device's screen brightness low?	1	2	3	4	5
4. Do you use dark colors for your screen background?	1	2	3	4	5
5. Are you using the appropriate font size on the screen?	1	2	3	4	5
<b>Lightening</b>					
6. Are you positioning the screen appropriately to avoid glare or harsh light from lamps or windows?	1	2	3	4	5
7. Do you put curtains on your windows while using a digital screen?	1	2	3	4	5
8. Are you using low-wattage light bulbs?	1	2	3	4	5
<b>Anti-glare screen or glasses/lenses</b>					
9. Do you use a protective screen against screen glare?	1	2	3	4	5
10. Do you use glasses or contact lenses while using digital devices?	1	2	3	4	5
<b>Rest breaks</b>					
11. Do you take a 15-minute break every two hours during digital device use?	1	2	3	4	5
12. Do you practice the 20-20-20 rule? (Every 20 minutes of screen time, take a 20-second break and focus on something 20 feet away or more than half a meter away.)	1	2	3	4	5
<b>Blinking</b>					
13. Do you practice frequent blinking while using the digital device?	1	2	3	4	5
<b>Document holder</b>					
14. Do you use a document holder when typing on the device or place the document on the keyboard?	1	2	3	4	5

<b>Seating position</b>						
15. Do you place your feet in a comfortable position or on the floor while using the digital device?	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	
16. Do you adjust the chair's handles to support the arm and wrist while typing on the keyboard?	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	
17. Is the chair comfortably padded and conforms to the body?	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	