

# DIFFERENCE IN COMPUTER-ATTRIBUTED VISION PROBLEM BETWEEN LAPTOP AND DESKTOP USERS

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## ABSTRACT

**Background:** Occupational health is a key component of an industry. This is because a strong safety culture boosts productivity, employee morale, and employee retention. A strong ergonomics integration prevents injuries and increases productivity. They make the workplace safer and reduce costs. Ergonomics also must be incorporated and seen as a value. It needs to be built into a corporate culture and be integrated into everything any company does on a daily basis, including that in the administrative office where workers frequently use computers. This study aimed to analyze difference in computer-attributed vision problem between laptop and desktop computer users.

**Subjects and Method:** This was a cross sectional study conducted in North Sumatera. A sample of 60 subjects consisting of 30 laptop users and 30 desktop users were selected for this study by purposive sampling. The dependent variable was vision problem. The independent variable was computer type. The data were collected by questionnaire and tested by Mann Whitney test.

**Results:** Among the laptop users, 80% experienced neck pain, 77% eye strain, and 70% low back pain. Among the desktop-computer user, 50% experienced neck pain, 77% eye fatigue, and 33% eye irritation. Mean score of complaints in the laptop user group was 2.54 units higher than the desktop-computer user group ( $p=0.001$ ).

**Conclusion:** Laptop users experienced more complaints than desktop-computer users. Workers using computers are suggested to have regular break to allow body organs to take a rest. Workers are also suggested to work at an ample distance between eyes and computer screen. Employers are responsible for providing a safe and healthful workplace for their workers.

**Keywords:** vision problem, computer-attributed, laptop, desktop computer, ergonomics

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