

# Effects of work-from-home use laptop or mobile phone causing Text neck syndrome during the quarantine period COVID-19

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## Abstract:

**Background:** Respiratory viruses like coronavirus disease (COVID-19) spread when mucus or droplets containing the virus get into your body through your eyes, nose, or throat. Most often, this happens through your hands. Hands are also one of the most common ways that the virus spreads from one person to the next when there is close contact with an infected person the risk plausible increases the longer someone has close contact with an infected person. During a global pandemic, one of the best ways to stop spreading the viruses in teachers and students to do their work-from-home. neck pain that results from tilting your head down to look at a smartphone, laptop, screen, And also if your work from home set up is not ergonomic that will facilitate the onset of musculoskeletal problem running from neck shoulder, back pain.<sup>[3,5]</sup> May but be mild to moderate neck pain and stiffness related to work from home or students who attend their school and college from home.

**Objective:** To find out the effects of work-from-home on laptop and smart phone users on the neck.

**Method:** 128 candidates were asked by questionnaire to fill 18 different questions related to posture, time, and duration of workload before and after quarantine, effects on neck they are feeling.

**Result:** The result of this study supports that 128 people who use laptops 46% suffering from discomforts, mild to moderate neck pain, and stiffness related to work from home.

**Conclusion:** The findings provide evidence that the prevalence of neck pain in laptop users was mild to moderate, the impact on work from home. The adaptable individual and work-related components were as follows, improving health status, job satisfaction, reduction of working hours on the LAPTOP or mobile phone, avoiding prolonged sitting forward head postures, having a rest time during the working hours, and performing regular daily exercises.

**Keywords:** coronavirus disease, LAPTOP, mobile phone, work-from-home, Text neck syndrome, quarantine period.

**Introduction:** Respiratory viruses like coronavirus disease (COVID-19) spread when mucus or droplets containing the virus get into your body through your eyes, nose, or throat. Most often, this happens through your hands. Hands are also one of the most common ways that the virus spreads from one person to the next when there is close contact with an infected person the risk probable increases the longer someone has close contact with an infected person. During a global pandemic, one of the best ways to stop spreading the viruses in IT workers and teachers, and students to do their work-from-home.

Cervicalgia (Neck pain) is a common complaint neck muscle can be strained from bad posture whether it's leaning over your laptop or hunching over your workbench, neck pain may be. Be Arise due to muscle tightness in both the neck and upper back and pinching of the nerve emanating from the cervical vertebrae.<sup>[2,3]</sup> Joint disruption in the neck creates pain, as doe's joint disruption in the upper back. The head is upheld by the lower neck and upper back, and it is these areas it is this area that commonly causes neck pain the top three joints in the neck allows for the most movement of head and neck the lower joints in the neck and those of the upper back create a supportive structure for the head to sit on if this supportive pattern is affected adversely, then the muscle in the area will tight lead to neck pain.<sup>[8,9]</sup>

If the discomfort you are feeling in your neck is, well, pain within the neck, you're far away from alone. Neck pain is extremely common, with nearly one in three individuals suffering from it once a year, consistent with the National Institutes of Health. Women are affected more often than men, besides poor posture, improper positioning of your head while you use a laptop, the phone can cause neck pain.<sup>[12,13]</sup> So-called "text neck" is neck pain that results from tilting your head down to look at a smartphone, laptop, screen, And also if your work from home set up is not ergonomic that will facilitate the onset of musculoskeletal problem running from neck shoulder, back pain,<sup>[3,5,8,12]</sup>

"When you merely place your Laptop on your lap for eight hours a day, you tend to have to tilt your head down (poor alignment) "The bad posture that many people have from sitting like this causes neck pain."<sup>[13,16]</sup>

**Method:**

In this study, the form was sent to laptop users to 128 people and was asked to fill answers of 18 items. The questionnaire covered demographic data and questions regarding awareness of preventive measures of coronavirus, mode of transmission of coronavirus, using a laptop or mobile, before and after quarantine duration of using a laptop or mobile, the position of the laptop or mobile, neck stiffness, symptoms, causes, numerical pain rating scale, pain radiating to another area, rest, ointment, hot pack stretching exercise to relieve pain, etc.

Then forms were reviewed carefully. Data processing and analysis were done with Graph Pad's website include portions of the manual for Graph Pad Prism (window version 8pro)The pie chart and t-test analyses were used to test for statistical correlation. An ( $P < 0.05$ ) was considered not statistically significant.

P value and statistical significance:

The two-tailed P value equals 0.4578

By conventional criteria, this difference is considered to be not statistically significant.

Confidence interval:

The mean of Group One minus Group Two equals -11.00

95% confidence interval of this difference: From -62.87 to 40.87

Intermediate values used in calculations:

$t = 0.9125$

$df = 2$

standard error of difference = 12.055.

Review your data:

Group	Group One	Group Two
Mean	30.67	41.67
SD	35.22	15.57
SEM	20	8.99
N	3	3

**RESULT:** The result of this study supports that 128 people who use laptops 46% suffering from discomforts, mild to moderate neck pain, and stiffness related to work from home. we also find that 22% of people are not sure about feeling discomforts, 32 % of people have no discomforts and no pain according to the questionnaire most of the people take less than 8-hour sleep, and people workload is an increase during this period of COVID-19 according to the questionnaire but statistical analysis of work hour and neck pain.

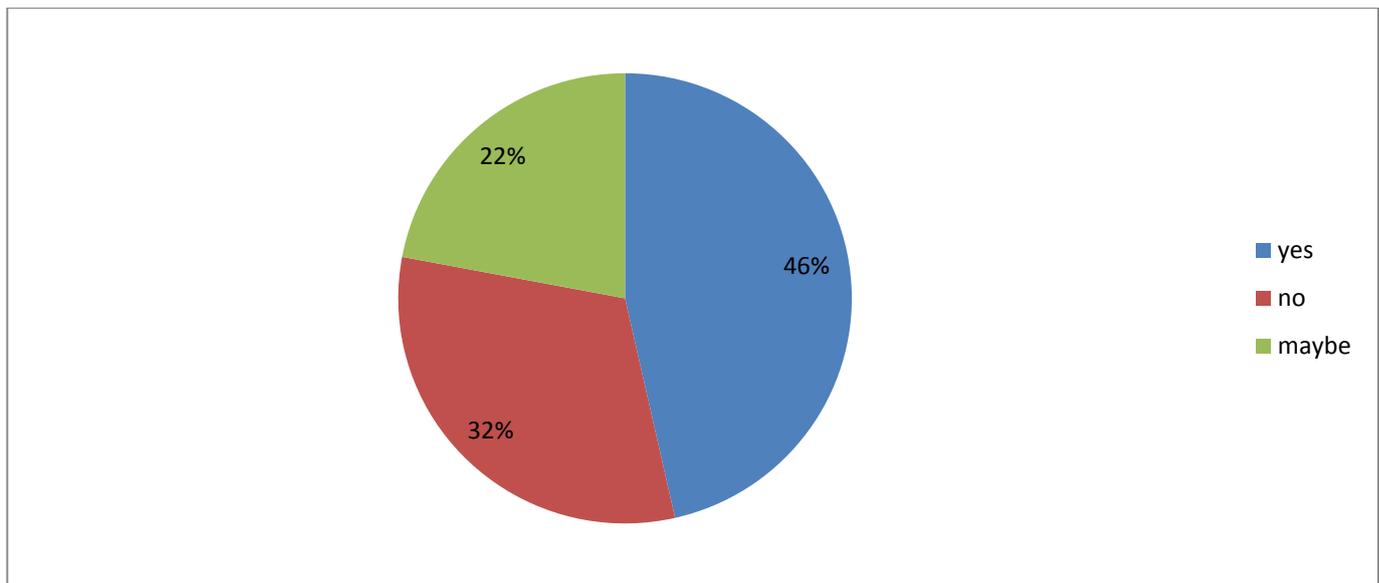


FIGURE: Shows that 128 people who use laptops or mobile 46% suffering from discomforts, mild to moderate neck pain, and stiffness related to work from home. we also find that 22% of people are not sure about feeling discomforts.

### Conclusion

Findings of this study indicate a mild to moderate prevalence of neck pain among laptop users. Working hours on the computer, prolonged sitting, and prolonged forward head posture found as work-related factors that correlated with neck pain occurrence among laptop users have a low quality of life and limitation in doing their ADL such as sleeping, indoor activities, outdoor activities, social activities, carrying heavy things, and driving disturbance. Some protective strategies such as having a break during working hours and performing regular daily exercises were found as useful protective factors to reduce the incidence of neck pain in laptop users during the quarantine period.

### POSTURE TIP FOR LAPTOP USER

Laptop allows us to be able to work more flexibly but they have been blamed for causing, neck, upper back pain.

Here are some ways you can make your laptop more comfortable to use

- use a separate keyboard and mouse so the laptop can be put on a stand and the screen opened at eye level
- use your laptop on a stable base where there is support for your arms, and not on your lap (USING TWO PILLOW TO MAINTAIN THE HEIGHT OF LAPTOP ACCORDING NECK ANGLE)
- take regular breaks. If you're moving, there's a lot less stress on your muscles and joints
- sit properly with lower back support, and ensure other desk equipment is within reach
- get into good habits before the aching starts. Neck, shoulder, and back problems gradually build up over time.<sup>[6]</sup>

**Conflict of interest:** There was no conflict of interest in this study.

**Ethical clearance:** patient consent was taken.

**Source of funding:** self

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