

## The Effect of Long - Term Computer Use on Health- Related Physiological Perspectives

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### Abstract

Overusing the computer and internet can yield several health problems. The enhanced use of computer can impact on both physiological and psychiatric health factors. It is accompanied with bad posture, musculoskeletal pains, obesity, weaker eyesight and mental illness. Health hazard of computer use life demands serious concern. Performing regular exercise largely can prevent or reduce the aforementioned issues that can be expected from computer and internet overuses. Physical activity such as 15 or 30 minutes walking for any break and reducing of the spending time to work with this kind of technology can account for as a helpful strategy toward living in more ideal manners.

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## Introduction

Nowadays all aspects of life like science, business, and entertainments and many others directly or indirectly govern with computer system. At the first look regular computer and internet use can save time, money and some physical efforts. However, regular sitting owing to the computer use can compromise sedentary behaviors in modern life styles [1]. The computer use include variety of side effects and excessive uses of computer can cause kind of addiction [2]. Health hazard of computer use life demands serious concern. Prolong computer usage has reversible impact on physiological and psychological processes at which can cause different short-term and long - term physical afflictions in human body over time [3].

The enhanced use of computer on can impact on brain and overall structural behaviors and create psychological difficulties. The amount of absorbed radiations from computer overuse can account for serious risk factors for body health. It can seriously affect, DNA, nerve system, immune system, hormone balances, and productive system and so on. Increased cancers and heart disease are other health problems of heavily computer usage [4, 5,6].

Constant social media use such as computer and internet usages can impose all individual including both

children and adult to the lifetime health issues [7]. Nonetheless, doing exercises in a regular manner with minimizing the computer and overuse can effectively counteract the dilemma from computer usages notion. Regular participation in exercise program even in a simple walking provoke mental and physical health and can prevent number of health problems that cause from sedentary lifestyle such as sitting behind computer screen and overusing the intents [8,9]. Physical activity in physiological term strongly can decrease the psychological issues and tensions in all aspects.

## The Long - Term Computer Usage on Physiological and Psychiatric Health Factors

It is common focusing on computer screen long period of time that can cause unnatural postural alignments at different point of body segments. Neck, shoulders, low back and wrists are the most frequent points that can suffer computer overuse related pains such strain (Figure 1). Subsequently postural defect can promote the risks of falls and injuries while locomotion. This is because improper sitting or standing and poor alignments can affect muscle contractions and the way the body move [10]. Prolong musculoskeletal pains and discomforts can create permeant disability which reduce the quality of lifespan and well – being [11].

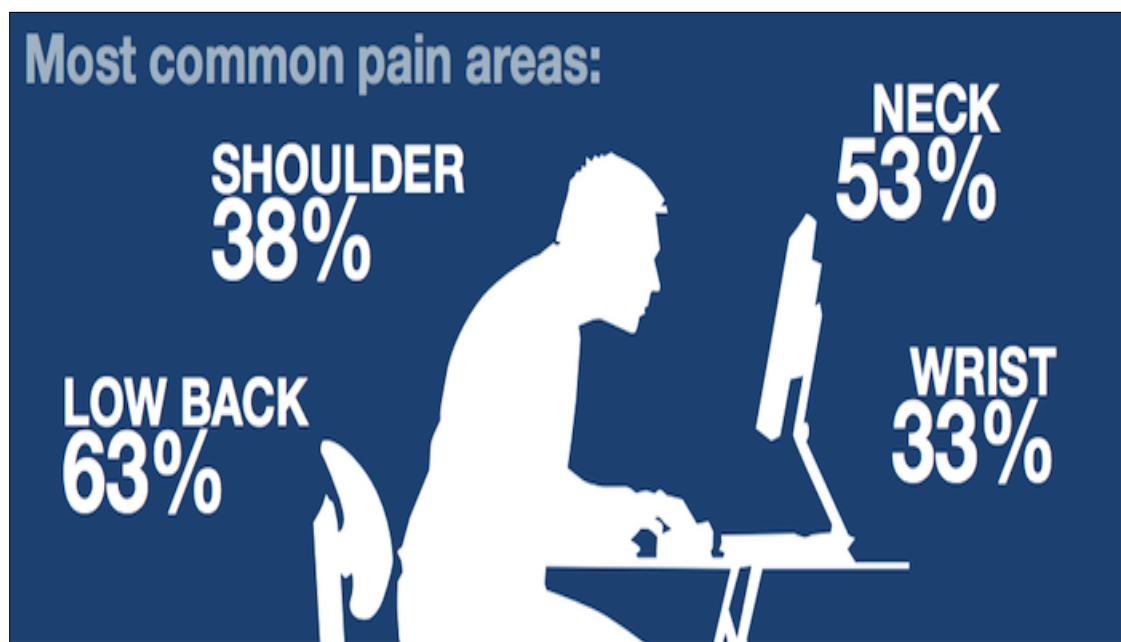


Figure 1. The most common pain areas in human body induced from compute overuse



Figure 2. Obesity and metabolic syndrome induced of computer overuse

Computer and internet overuses increase sedentary time and inactivity which impact on body weight as well as body mass index (BMI) at which can cause overweight and obesity conditions in different individual [12]. Computational technological changes will raise obesity and associated illness. Long term sitting following long-term computer use increase appetites and reduce the desire of being active so that the fat layer accumulate in body in part in the abdomen (belly) first and induce different level of obesity (Figure 2). At the subsequent time, serious health condition such as cardiovascular and heart diseases, metabolic syndrome, high blood pressures cancers can appear in long – terms [13]. Consequently, additional cost of obesity in different health setting statistically is very high and account for heavy burden on global economic. More importantly, morbidity and mortality associated with obesity are enhancing per second per year [14].

Further, high level of computerized works impact on vision and lead to eye problems and very large amount of people are experiencing that every day [15]. Computer vision syndrome causes dry eye, irritation, burning that affect visual workouts which can affect the quality of any tasks being performed (Figure 3). In

critical situation owing to the computer overuse the eyes can suffer surgical operation [16]. Server headache and dizziness due to computer overuse influence on of eyes function and cause visual discomfort. Eye health and vision are very crucial in everyday tasks and so preventive strategy such as reducing the working hours with computer and internet are very essential.

Moreover, high level of computer over use will yield several mental health outcome such as stress, depression and sleep disturbances among young adults. Neglecting of personal needs and devoting plenty of times to intensive work with computer and internet in terms of digital appliances reduce the optimal performances in related work and put the user at risk of serious mental illnesses. Social phobia is another dilemma due to long - term computer over uses. Long-term computer exposures can cause isolation and minimizes the time which a person can communicate with other individual and in fact reduces the communication and social interaction. Increasing physical activity and reducing the spending time with computer can be effective preventive strategies [17]. (Figure 4)



Figure 3. Computer vision syndrome

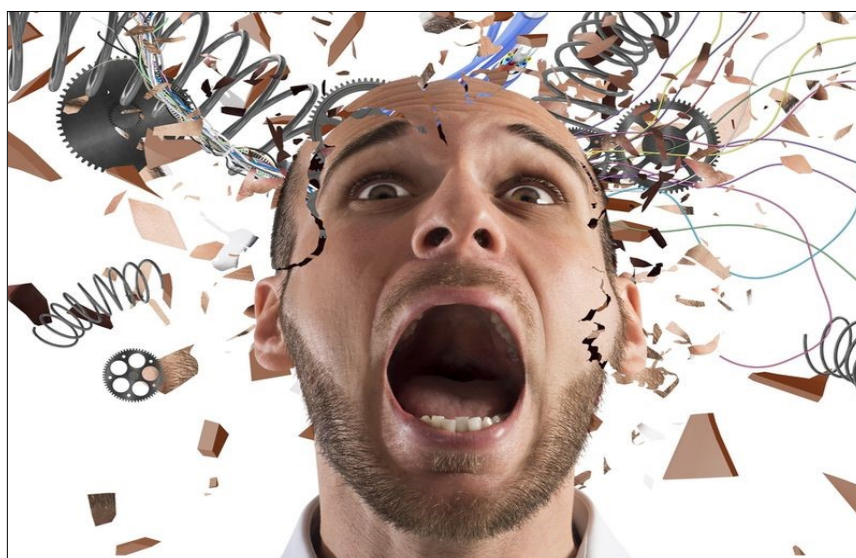


Figure 4. The mental stress induced of high level of computer usage

## The Preventive Effects of Regular Exercise on Computer Overuse

Regular exercise largely can reduce the health risk factors induced from computer over use. Physical activity can help to reduce muscular pain gained from computer over usage. It can to prevent obesity, metabolic syndrome and diabetes. Regular exercise can govern appetite and prevent of overeating while using computer and being fat or obese.

Performing exercise regularly can improve mood, eyes sight and can cause brain works more ideal. Doing continual physical activity increase the oxygen level in body and in part enhance the overall body abilities in all physiological fitness which of course leads to better mental condition also. Physical activity such as 15 or 30 minutes walking can improve posture, balance that notably can reduce the risk of fall and injuries [18, 19].

### Summary and Future Directions

Due to high level usage of computer the musculoskeletal system can suffer pain and injuries that subsequently will impact on posture and locomotion. Overusing the computer can increase obesity and related disease. It can weak the eye sights and can continuous cause headache. Overuses of computer technology and internets can induce several mental health illnesses such anxiety, stress and social phobia. Spending of too much sitting behind computer and can put individual at risk of serious physiological and psychological health problems. Performing regular basis exercise to counteract the risk health factors which can induce from computer over use really can be a helpful strategy which can yield several health benefit toward more optimal life.

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