

Computer-related conditions

<http://yourhealth.asiaone.com/print/content/computer-related-conditions>

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Photo: Korea Herald/ANN

With the increased use of computers and the Internet, many people are spending extended periods of time using computers at work and at home. This has led to an increase in conditions related to such activity. Computer-related health problems are called VDT syndrome, or "computer related diseases."

VDT syndrome refers to pain in the neck and shoulders due to shoulder-arm-neck syndrome, and other musculoskeletal symptoms, fatigued eyes and foreign sensation, skin conditions and neuropsychiatric problems. **VDT stands for visual display terminal —meaning computer screens.**

1. The initial symptom of VDT syndrome includes pain and stiffness of the muscles, myofascial pain and lower back pain. It also includes carpal tunnel syndrome due to pressure on the nerves in the wrists causing tingling of the fingers. These peripheral neuropathies and muscle problems lead to pain and tingling in the neck, shoulders, elbows, wrists and fingers.
2. Secondly, symptoms of the eye can occur, such as foreign body sensations, redness, photophobia, dry eyes, myopia and other refractive problems.
3. Thirdly, psychiatric problems such as Internet addiction, game addiction, depression, sleep disturbance and headaches occur. Fourthly, migraines and gastrointestinal problems due to the consumption of fast food can occur.
4. Lastly, although controversial, **exposure to electromagnetic radiation can cause health problems, such as skin disease, teratogenicity(1) and miscarriages.**

The causes of VDT syndrome include poor workspace design, a dry environment, low quality computers, the use of the wrong prescription glasses or contact lenses, bad posture, repeated pressure from keyboard use, repeated movement in a fixed posture and insufficient rest.

The Federation of Korea Information Industries recently published a report titled "Prevention of VDT Syndrome." They have suggested the reason for the increasing number of VDT syndrome patients to

be increased individual computer use, larger screens, the increase in the number of laptops, and the use of computers by the middle aged and the elderly.

Larger screens are convenient for reading or watching videos, but they can lead to early fatigue of the eyes and dryness. Using a large screen on the desk causes users to tilt their faces upward, which increases the surface area of the eyes that is exposed to the air, leading to dryness. Color screens also tire the eyes. The different wavelengths of the red and blue light can lead to fatigue of the ocular muscles that focus the eyes. Notebook PCs decrease the work of the eyes, but cause pain in the neck and the shoulders. The smaller keyboard can lead to pain and tingling sensations in the wrists and the fingers.

The middle aged and the elderly are now using computers more frequently for work, which is another cause of the rise of VDT syndrome. These people are more likely to develop problems because their eyes are not as strong as younger people's. People who use glasses for myopia and hyperopia look at the screen through the lower part of their glasses. Therefore, they tend to bend their necks, which can lead to pain in the neck and shoulders if continued for a long time.

To prevent VDT syndrome, maintain a distance of at least 30 centimeters between the eyes and the screen. This decreases the angle of the neck, to decrease pain in the neck and shoulders and also helps the eyes from tiring out.

Also rest for at least 10 minutes after working for 1 hour. If you feel that your eyes are tired or if your muscles are stiff, rest whenever you feel these symptoms even if you have not worked for 1 hour. Working continuously in the same posture can lead to fatigue and pain of various muscles, including those of the neck, shoulders, and the lower back. Rest frequently and stretch often to relax the muscles. Those with myopia or hyperopia should get prescribed VDT work glasses for use.

You should also try to reduce the amount of stress and enjoy your work. Those working in the games industry who enjoy their work rarely develop VDT syndrome even though they work on a computer all day. On the other hand, young people working in gift market dealing who use the computer for a few hours each day can suffer from severe VDT syndrome.

If you suspect VDT syndrome, you should see a doctor to make the right diagnosis. This is because you may actually have another disease that may not be picked up early if not seen by a doctor. It is important to identify the cause of VDT syndrome to correct the cause. This may include modifying the work environment or doing appropriate exercises.

Next, appropriate treatment must be started for each diagnosis. If you have musculoskeletal problems, you may need pharmacological treatment or physiotherapy. If you have eye problems, you will need ophthalmologic treatment. Prevention is most the important treatment for VDT syndrome. VDT syndrome often recurs after treatment due to inappropriate habits or working environment.

1. Teratogenic effect: the combined consequences of consuming a harmful substance, such as alcohol, on a developing fetus; may manifest itself as growth deficiency and/or mental retardation; fetal alcohol syndrome is an example

Source: (<http://medical-dictionary.thefreedictionary.com/teratogenic+effect>)