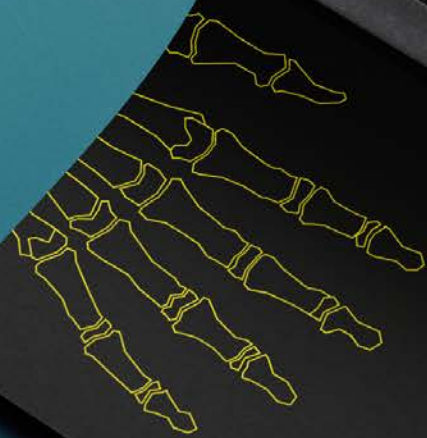




COMPUTER HUMAN

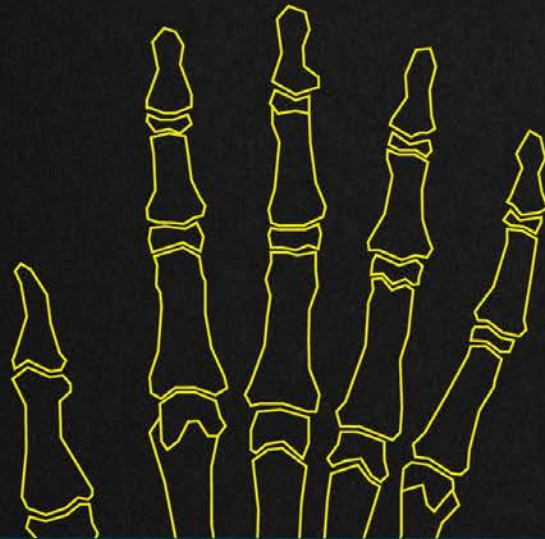
A medical guide to wellness for body & health in a world of digital distraction



By Harrison Wood

COMPUTER HUMAN

A medical guide to keeping your body as healthy as possible throughout extended hours of computer use.



Contents



Page 1 and 2

The spinal column

Page 3 and 4

The synovial Joint

Page 5 and 6

The human hand

Page 7 and 8

The Cervical vertebrae

Page 9 and 10

The Oculus

Page 11 and 12

The Glenohumeral Joint

THE SPINAL COLUMN

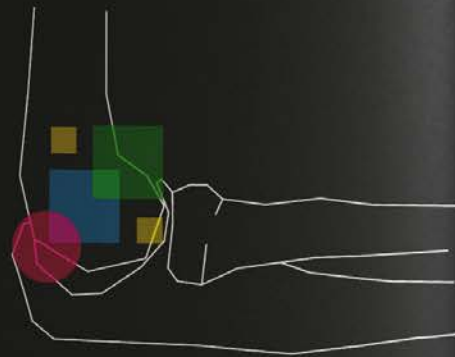


Your spine's neutral position is upright, shoulder back, and a slight curvature at the spine. Leaning too far forward, bending your head too low, or dangling your feet too high can all cause spine issues.

Possible solutions

- Use an adjustable computer desk
- Have the computer monitor at eye level
- Have your keyboard at a height that allows your elbows to rest at your sides. Forearms should be level with the keyboard and parallel with the floor.
- Adjust your chair so your feet are flat against the floor
- Use an ergonomic chair designed to hold your spine's natural curve
- Use an ergonomic keyboard that supports a natural hand-wrist position
- Take short breaks, do stretching exercises and stand as much as possible

THE SYNOVIAL JOINT



3

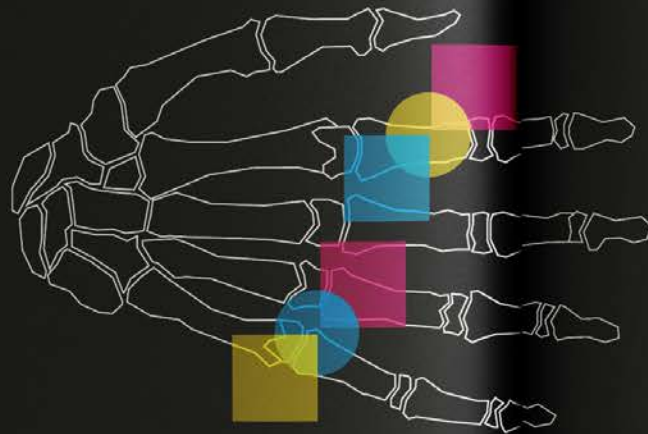
Computer elbow, or mouse elbow, is essentially the same condition as tennis elbow in which the repetitive actions involved when working on a computer, such as the gripping and squeezing of a mouse and typing on a keyboard, causes muscle pain or tendon pain in your elbow.

Possible solutions

- Avoid or reduce the activity causing the pain
- Try taking over-the-counter anti-inflammatory medication
- Keep the elbow moving to avoid stiffness
- Massaging the painful area can often give significant relief
- Try wearing an elbow clasp or brace helpful
- Invest in a vertical mouse and narrow keyboard
- Invest in a chair with lumbar support

4

THE HUMAN HAND



5

Muscles and tendons can become painful with repetitive movements and awkward postures. This is known as overuse injury and typically occurs in the elbow, wrist or hand of computer users. Symptoms of these overuse injuries include pain, swelling, stiffness of the joints, weakness and numbness.

Possible solutions

- Have your mouse at the same height as your correctly positioned keyboard.
- Position the mouse as close as possible to the side of the keyboard.
- Use your whole arm, not just your wrist, when using the mouse.
- Type lightly and gently.
- Mix your tasks to avoid long, uninterrupted stretches of using the computer.

6

THE CERVICAL VERTEBRAE

Many people slouch or strain their necks while working at the computer. A new study shows how jutting the head forward to read more closely compresses the neck and leads to neck and shoulder problems.

It's a posture so common we almost don't notice it anymore: someone sitting at a computer jutting his or her head forward to look more closely at the screen. But this seemingly harmless position compresses the neck and can lead to fatigue, headaches, poor concentration, increased muscle tension and even injury to the vertebrae over time. It can even limit the ability to turn your head.

Possible solutions

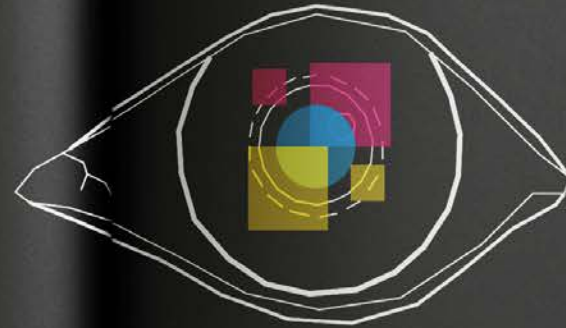
- Increase font size of on computer screen
- Wear computer reading glasses
- Place computer on a stand at eye level
- Keep checking that head is aligned with spine as if held up by a piece of string on the ceiling



THE OCULUS

Focusing your eyes at the same distance point for long periods of time causes fatigue. The human eye structurally prefers to look at objects more than six metres away, so any work performed close up puts extra demands on your eye muscles.

The illuminated computer screen can also cause eye fatigue. Although there is no evidence that eye fatigue damages your eyesight, computer users may get symptoms such as blurred vision, temporary inability to focus on faraway objects and headaches.



Possible solutions

- Make sure your main source of light (such as a window) is not shining into your face or directly onto the computer screen.
- Tilt the screen slightly to avoid reflections or glare.
- Make sure the screen is not too close to your face. Put the screen either at eye level or slightly lower.
- Reduce the contrast and brightness of your screen by adjusting the controls.
- Frequently look away from the screen and focus on faraway objects.
- Have regular eye examinations to check that any blurring, headaches and other associated problems are not caused by any underlying disorders.

THE GLENOHUMERAL JOINT

Long-term work at a computer can lead to inflammation of tendons and exchanges to the shoulder joint, in severe cases this can lead to tearing of tendons and muscles "rotator cuff". If inflammation persists, the capsule and ligaments of the shoulder joint becomes stiffer and limit mobility.

Possible solutions

- Breathe deeply from your abdomen.
- Relax your arms in your lap.
- Stand up and tilt your head to the left, hold it for several seconds, and repeat on the other side.
- Gradually move your shoulders up to your ears and hold briefly.
- Rest your eyes by focusing on distant objects

