



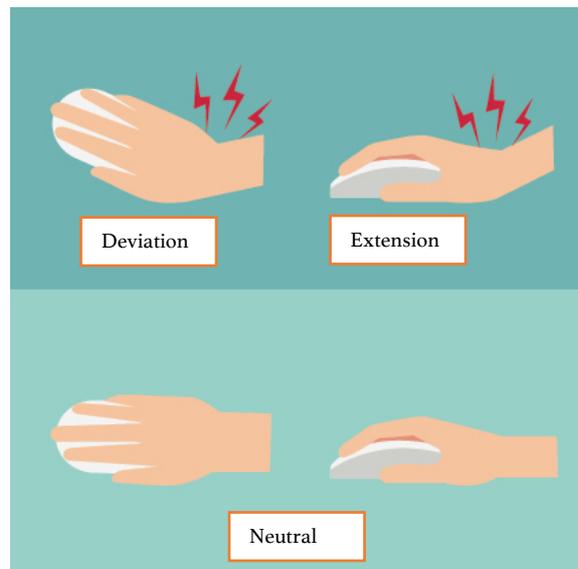
‘Ergonomic’ Computer Mouses and The New Unimouse...

Repetitive strain injury or RSI has been around for many years, in fact, my first educational expedition as a physiotherapist dipping his toe in the field of office ergonomics, back in 2006, was to a conference hosted by the RSI Association. And even prior to the well-known acronym becoming a ‘thing’, we can presume that stress and strain of joints occurred, and that, at times the primary cause could reasonably be linked to repetitive activities. I’m sure Shakespeare had a little ‘Writer’s Cramp’ occasionally.

At the aforementioned conference, inevitably, vendors of the latest ‘ergonomic’ equipment were peddling their wares, including keyboards and NKIDs (Non-Keyboard Input Devices), or mouses (apparently the plural of mouse is mouses when referring to computer devices rather than small, furry rodents). And these were impressive, as much for their futuristic aesthetic as their purported health benefits.

The principle of an ergonomic mouse is that by holding the hand, wrist and forearm in a more ‘neutral’ position when operating it, the joint and tissue strains associated with its use are attenuated and so, therefore, is the risk of developing injuries.

When it comes to mouse use, there are two common primary movements of the wrist away from neutral: extension and deviation, which can be seen in the picture opposite. This is because users tend to anchor the wrist on the desk, usually with the arm extended away from them somewhat. It is possible to avoid these movements without the use of an ergonomic mouse, simply by sitting with the elbows level with the top of the desk, keeping the mouse close, and moving the mouse with more arm movement, rather than localising movement to the wrist, however this is counterintuitive, and part of ergonomics is designing around intuition.



Above the wrist, movement of the forearm turns the hand into a palm down position (pronation) and palm up position (supination) - runners will be all too familiar with these terms, particularly the former; so that operating the mouse requires a combination of pronation initially and then for this position to be maintained, along with ‘extension’ and then repeated ‘deviation’. So ergonomic mouses are designed to minimise these movements and consequently, the strain on the muscles performing them.

Various iterations of ergonomic mouses have come across my path in the past 12 years and I have tried many, if not most. The latest is the Unimouse from Contour.

The Unimouse, so the official blurb goes, reduces strain caused by reaching and twisting your arm, blah, blah, blah... so do all of the vertical mice on the market – nothing new... Until you get to the part about adjustability. You see, a number of mouse designers have recognised that perhaps having the hand fully vertical (perpendicular to the work surface), may not be ideal and that ‘mid pronation’, somewhere between vertical and pronated, maybe preferable. Studies have shown improved control of the mouse with more pronation (makes sense since we are used to using the mouse in a more pronated position) and, in fact, the anatomy of the forearm is such that mid pronation is neutral. This is thought to be around the same position that your wrists would adopt if you had your hands on top of a beach ball, about shoulder width apart and your elbows bent to 90°. So around 40-70° from a flat palm.

The Unimouse takes this a step further, in that it allows the degree of pronation (mouse angle) to be adjusted for the individual’s comfort from anywhere between 35 and 70°. Moreover, this can be adjusted throughout the day, thereby helping you to control the exposure to any one position, which is the primary factor in overuse – the fact that the same movement is performed over and over without variation. There is only one other mouse on the market that I am aware of that offers this range of angle adjustment and that is the Oyster mouse from BakkerElkuizen. This has 5 available angles to choose from, whereas the Unimouse angle adjustment is infinite. The Unimouse also has an adjustable thumb articulation, which is adjustable in height; width and length to enable the most comfortable thumb position – particularly useful if managing a thumb injury such as DeQuervain’s Tenosynovitis.

The degree and ease of adjustability is the key feature of the Unimouse and is revolutionary. It allows the consultant or health and safety professional to recommend a device with room for error as the user has the ability to adjust it themselves to their ideal position. We would never recommend a chair with no adjustability, even if we could design a chair to fit somebody perfectly, we would still want it to be adjustable, so the user could ‘fine tune’ the settings, and, more importantly, incorporate some variation into their sitting. What the ergonomic chair does for the spine; the Unimouse offers for the arm.

If Carlsberg made computer mice...

unimouse
COMFORT IN MOTION.

