

The Clear Winner in Ergonomic Trials

Penguin® Ambidextrous Vertical Mouse

The studies

VSI Risk Management & Ergonomics Inc. in California carried out a study testing 4 mice: The Penguin®, Evoluent, 3M Renaissance and a standard mouse. There were 22 users in the study and all these users spend at least 6 hours a day using a mouse. The University of Brighton in the UK carried out a study with 21 participants. The participants answered 11 questions covering 5 areas of mouse use: Operation, performance, comfort, design and satisfaction. They all used the tried and tested Computer System Usability Questionnaire (CSUQ) which has been proved in terms of validity and reliability (Lewis 2002). The CSUQ was enhanced in this study by the addition of an open ended question asking participants to comment on the study.

90% said the Penguin® was the most comfortable mouse to use

of users chose to keep the Penguin® at the end of the study (compared to less than 10% opting for any other mouse in the study)

82% said the Penguin® had superior design and usability

Source: VSI Risk Management & Ergonomics Inc.

Key findings from the Brighton study found:

- The Penguin® encouraged the forearm in a mid range, low risk position and demonstrated lower ranges of movement in all directions compared to the Evoluent mouse. The Penguin® could prove to be a solution if people have injuries related to overuse of the wrist.
- There were lower levels of extensor activity when using the Penguin® mouse.
- Using the standard Rapid Upper Limb Assessment (RULA) the study found that participants had more positive scores and lower risk factors when using the Penguin® mouse compared to other mice.
- The majority of participants preferred using the Penguin® mouse when given a choice.

What makes the Penguin® special?

Fellowes® specialise in creating ergonomical, healthy workspaces and know what contributes to hand and wrist pain.

- The unique ambidextrous design makes it possible to switch hands effortlessly
- · The curved shape requires virtually no grip at all
- The base provides a comfortable stable resting place for the hand
- 3 size options to suit all users
- Protective Biocote[®] coating reduces the amount of bacteria on the Penguin[®]





The Penguin® was developed to overcome the many problems that are associated with regular use of traditional shaped mice. Mouse design influences the forearm position – a standard mouse requires the hand to be held in a pronated position.

Repetitively placing one hand into an unnatural position for hours every day will almost certainly lead to problems now or in the future, and even though we can repeatedly tell you how the Penguin® mouse will help the health and productivity of your workforce, it's gratifying to know that independent experts agree with us.



The hand is in an unnatural position when using a standard mouse

Many studies have been carried out about the links between computer usage and Work Related Musculoskeletal Disorders – these studies have investigated various designs of mouse and looked at productivity, comfort, upper limb posture and position. (Aaras et al 2001, Gustafsson and Hagberg 2003, Chang et al 2007, Houwink et al 2009 and Odell and Johnson 2007).



When using a Penguin® the wrist remains in the neutral position

The design of a standard mouse has been found to be one of the main risk factors in hand and wrist pain. Mice that encourage the wrist to remain in a neutral position (the Penguin® for example) have been found to reduce self reported hand and wrist pain and decreased muscle activity in the extensors of the forearm. In two ergonomics studies the Penguin® mouse was compared to both traditional mice and the Evoluent mouse. The Penguin® clearly beat all other mice in terms of usability, comfort and lower risk factors.





