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**Mr Grant Richter**
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**RE: PRODUCT EVALUATION OF THE ERGOPORT COMPUTER KEYBOARD & ACCESSORY WORK SURFACE**

The details contained within this product evaluation report have been obtained by referring to the following documents:

- The University of Sydney, School of Exercise and Sport Science.
- Ergoport information kit and product brochure.
- Victorian WorkCover Authority statistics.

The product was also trailed with a number of computer/ administration based employees for user perceptions and feedback performance.

Computer based activities within the workforce has increased significantly over the recent years. These activities have also extended to the domestic environment in similar proportions. Whilst computers offer many advantages from both an administrative and learning perspective, there are also areas of concern from a health perspective which the computer user does not consider until pain symptoms begin to exist or when some permanent physiological damage has occurred.

As reported by the Victorian WorkCover Authority (VWA) the most common complaint associated with computer related activities is the potential for the user to sustain some form of Muscular Skeletal Disorder (MSD). MSD injuries refer to the sprain and strain of the soft tissues within the human body. The soft tissue components in the body which are most vulnerable to MSD injuries are the tendons, ligaments and the muscle groups. To highlight the significance of MSD's, for the 1995/96 – 1996/97 period the VWA reported that 58% of all WorkCover claims were related to MSD's. Acknowledgement must also be made of the fact that these VWA statistics which refer to MSD's will include a variety of manual handling related activities. However, these statistics do not imply that computer users will automatically sustain an MSD related injury the moment that they begin their computer related activity.

As reported in many ergonomic and safety texts, computer users who spend considerable time working with a computer whilst adopting a seated posture are the most vulnerable group with regards to sustaining an MSD injury. The rationale behind this fact is quite simple. Very few computer users take the time to ensure that their computer workstation is correctly set-up for their specific requirements. In many instances the user has had little to no training regarding the correct set-up of their workstation. In addition to this fact, many users perform their computer tasks without taking the appropriate time to rest those parts of their body which are being used on a constant and repetitive basis. All of these factors add up to a high risk of sustaining an MSD injury, which can prove to be quite debilitating for the sufferer over a potentially protracted timeframe. The costs from both a treatment and work disruption perspective tend to be quite high.

As previously mentioned in this report workstation design is an extremely important component towards combating a potential MSD injury. Whilst there are a number of workstation accessories available to the general public which are designed to enhance the safety features of the workstation very few of them correct the users' posture when seated at a computer workstation.

The Ergoport product which had been trialed and assessed by the NSCA may also be referred to as an accessory item for the computer workstation, however the advantages that it offers to the user are considerably different to the usual computer workstation accessories. The principal advantage of the ergoport is that it encourages the user to adopt an upright posture of the spine when working at the computer workstation. By all accounts this is the safest posture that the user can adopt when working at their workstation. At this point it should also be mentioned that whilst the Ergoport product encourages the user to adopt an upright posture when seated, it is also important that the chair and desk height is correctly adjusted for the individual users' personal requirements.

A number of trials were conducted with the Ergoport product for the purpose of judging its performance and the benefits that it offers the computer workstation user. In all cases trialed the users' had commented upon the manner in which the Ergoport enabled them to sit at their computer workstation with a straight spine and of the fact that the integrated forearm supports enabled them to rest their arms whilst using the keyboard. The advantages to this design concept provided the users' with significantly less shoulder fatigue than that of the customary method of resting the arms on the flat surface of the workstation surface.

**Whilst this trial was not conducted under any form of scientifically supervised procedure, efforts were made to ensure that the user group had their usual chair and workstation desk set to the correct height with the Ergoport product installed on the desk at the time of adjustment.**

When one considers the design features of the Ergoport product it becomes clear to the trained eye that the benefits offered by the product are quite universal. A list of these benefits are as follows:

- The plastic mouldings are well radiused, resulting in smooth surfaces around the entire product. This feature virtually eliminates the potential for sharp energy points to dig into the users' upper limbs.
- The method of securing the Ergoport product to the desk surface ensures that the Ergoport does not move under the weight of the users' limbs, thereby providing a safe and stable upper limb support.
- The transportability of the Ergoport enables it to be fitted to another workstation by applying new Velcro strips to the intended workstation surface.
- The surface area of the Ergoport incorporates sufficient space for the keyboard, mouse and mouse pad and a telephone. Furthermore, due to the generous surface area of the trialed product the user should not experience any form of restriction in movement to the upper limbs when performing normal keyboard activities.
- The surface area of the Ergoport product incorporates a slight angle which tilts towards the user. This angle encourages the user to adopt a safe and comfortable position of the elbow and forearms which in turn provides support to the shoulders. This feature also encourages the user to adopt a straight posture of the entire spine resulting in reduced discomfort in both the lumbar and thoracic region of the spine and the neck. This feature is primarily due to the support provided to the shoulders.

**Prospective purchasers of the Ergoport should also note that to gain the full benefit from the Ergoport the users' workstation which incorporates the chair and table height (including the Ergoport) must be set to the correct heights. This is very important to keep in mind when setting up the new workstation. Information relating to this topic is available from Government services and OH&S/Ergonomic information suppliers.**

In summarising, the Ergoport provides the user with a quality product which will provide noticeable benefits towards improving the ergonomic qualities of a computer based workstation when set-up to the correct height specifications.

Should the intending purchaser require further technical information concerning the Ergoport product, there are a number of technical reports available. These reports were reviewed as part of this product evaluation report.

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