Prevention of Repetitive Strain Injuries (RSI) at Delft University of Technology

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Abstract

RSI (especially non-specific RSI) is often classified as a syndrome because of the uncertainty of the cause and the variety of symptoms. Therefore, combined with a lack of injury evidence, RSI is a medically disputed phenomenon, not-withstanding the very serious human and financial consequences. Regrettably, there is still a great lack of knowledge about effective RSI prevention. A multi-disciplinary RSI prevention group was set up at the Faculty of Industrial Design Engineering (IDE) at Delft University of Technology. This working group, supported by the Educational Director of that faculty, organised various prevention activities for students and –to a smaller extent– for universal employees on a yearly basis. The prevention programme will be presented. In addition, surveys amongst IDE students were held to determine whether the group of students with RSI was increasing or diminishing and to establish the nature of the complaints. Although no direct relation between complaints and various prevention activities could be found in the presented surveys between 1999 and 2002, some tendencies will be reported.

Introduction

The RSI phenomenon

Repetitive Strain Injury (RSI) is a medical syndrome affecting the neck, upper back, shoulders, arm, wrist or hand, or a combination of these areas. The symptoms – tingling, numbness, stiffness, pain, loss of strength, and loss of motor function– are preceded by activities that involve repeated movements of arms or hands, and require keeping some body parts in a static position. There is indication that precision demands and mental pressure contribute to the occurrence of complaints (Visser, 2004). Most RSI cases are non-specific, this means no diagnosis can be made and there is no proof of any tissue damage. The scientific discussion about the origination of RSI leads to very diverse insights and hypotheses. There are multiple possible mechanisms, but none of the hypotheses forms a complete explanation and is sufficiently supported by empirical data (Visser, 2004). Furthermore, most RSI prevention is hardly supported by scientific knowledge.

In D. de Waard, K.A. Brookhuis, R. van Egmond, and Th. Boersema (Eds.) (2005), *Human Factors in Design, Safety, and Management* (pp. 139 - 153). Maastricht, the Netherlands: Shaker Publishing.