

The TUC reports that one in fifty workers is suffering from the symptoms of RSI, which include pain and immobility in the joints, nerves and muscles from the fingers to the neck. Through the RSIA Helpline we have received reports from some industries (particularly involving teams of computer operators) where incidence is as high as one in four workers. Treatment and recovery are often unsatisfactory especially in more chronic cases. The end result can be permanent disability.

Last year 5.4 million days were lost in sick leave due to RSI and, every day, six workers left their jobs because of RSI, even though if caught early enough it can be treated by changing the way work and workplaces are arranged. About a third of workers with RSI are under 45, and just over half (55% - 276,000) are women.

Ongoing research in Sweden reveals that around half of those who work with computers have pains in their neck, shoulders, arms or hands. In addition, a recent study by Dr Leon Straker at Curtin University of Technology in Australia found that 60 per cent of children suffered discomfort when using laptop computers. In Britain, the Government's professed aim is to put a laptop on the desk of every school child. We risk rendering thousands of children unable to work unless the problem of RSI is taken seriously.

The RSI Awareness currently handles around five thousand telephone calls, emails and letters each year from people seeking information about musculoskeletal conditions. The RSIA website attracts 4,000 individual visitors per month with an average of 162 factsheets downloaded every day. We are now faced with a dilemma: increased publicity for the organisation results in a massive influx of new enquiries from people with RSI symptoms. We are acutely aware that the majority of people experiencing pain, discomfort and loss of function due to musculoskeletal problems in the workplace make no reference to their condition for fear of losing their jobs.

Economic Consequences

The rising prevalence of RSI has a significant impact on the economy. Employers whose staff develop RSI conditions as a result of work face a range of costs, some evident, others hidden. These include:

- Loss of production
- Poor worker morale
- Sickness payments for those unable to work
- 'Presenteeism', staff at work when they are not fit to be there, but are afraid to be absent
- Ill-health retirement costs for those permanently unable to work
- Injury benefits payments in some industries, e.g. NHS Trusts have to fund Temporary Injury Allowance and Permanent Injury Benefit under the NHS Industrial Injuries Scheme
- Recruitment and retraining costs as skilled and experienced workers need to be replaced. The average cost of replacing employees due to injury, long-term illness or early retirement is £3,000-£4,000 per employee. This is likely to be greater for experienced staff, for example the cost of replacing an NHS professional can be as high as £8,000-£10,000
- Bad publicity
- Difficulties with recruitment, due to a number of the above factors
- Litigation costs and compensation payments to those successfully pursuing negligence claims
- Increased insurance premiums
- In some cases, the total cost to an employer of an ill-managed RSI condition can be the equivalent of up to 50% of the employee's salary.

Neck and upper limb musculoskeletal disorders are increasingly recognised as a significant occupational health problem by occupational doctors, employers, academia, trade unions and governments. Some member states have identified a major ill-health and financial burden associated with these problems.

Data from the Nordic countries and the Netherlands estimates the cost at between 0.5% and 2% of Gross National Product. In Britain, this equates to between £5bn and £20bn annually. Inaction is costing the country dearly and is subjecting increasing numbers of people to a great deal of unnecessary pain and suffering. It would seem, therefore, that there is considerable potential for reducing the exposure to work related risk factors of neck and upper limb musculoskeletal disorders in the UK.

RSI Awareness

Upper Limb Disorders: an Overview

'RSI' and Upper Limb Disorders

Musculoskeletal disorders of the upper and lower limbs, often known as repetitive strain injuries (RSIs) are a major problem in the workplace and a significant cause of lost production, with an estimated cost to Industry of up to £20bn annually. Because RSI conditions are invisible the general public tends to be unaware of the pain and distress suffered by those affected. Due to a lack of relevant research and information, many people are unclear as to the origin and treatment of these conditions.

Terminology

RSI is not a recognised medical condition and the term does not lend itself readily to use as a medical diagnosis. It is a term similar to 'sports injury' in that it describes how the injury was sustained, but says nothing about the injury itself.

Originally coined by the media, 'RSI' is a generic term used among support groups, trade unions and members of the public to cover a range of specific disorders of the musculoskeletal system (Type 1 RSI). It is also used to describe the more difficult to define non-specific pain syndrome (NSPS), occasionally called 'diffuse-RSI', which recent research attributes to nerve damage (Type 2 RSI). These are almost always occupational in origin, although other factors may also be involved.

RSI conditions occur in both upper and lower limbs as well affecting the spine in various areas, which in turn can cause referred pain into the limbs, making diagnosis difficult. Symptoms of numbness, tingling, sharp pain, dull ache, weakness, loss of grip and restricted movement of limbs can render people incapable of carrying out the simplest of tasks, at home or at work. Lack of accurate diagnosis and access to appropriate treatment further exacerbate the condition, frequently resulting in job loss and economic deprivation.

Type 1 RSI: Specific Pathological Conditions

Some specific conditions which are often grouped under the RSI umbrella can be diagnosed using standard clinical techniques of examination. In 1991 an article in *The Lancet* listed 22 conditions under that heading. These included:

- Adhesive Capsulitis (Frozen Shoulder)
- Bursitis
- Carpal Tunnel Syndrome
- Cervical Spondylosis
- Cramp of the Hand (Writers' Cramp)
- Cubital Tunnel Syndrome
- De Quervain's Syndrome
- Dupuytren's Contracture
- Epicondylitis (tennis / golfer's elbow)
- Ganglion Cyst
- Peritendinitis
- Rotator Cuff Syndrome
- Tendinitis
- Tenosynovitis
- Trigger Finger / Thumb
- Vibration-induced White Finger

Five of these conditions (Carpal Tunnel Syndrome, Tenosynovitis, Bursitis, Cramp of the Hand and Vibration White Finger) may, under certain circumstances, be accepted by the Industrial Injuries Advisory Council (IIAC) as "prescribed industrial diseases" and may attract Industrial Injuries Benefits. However, welfare reforms recently introduced by the Government have made access to benefits much more difficult for many people with disabilities, leaving a number of people with RSI unable to work and ineligible for State support.

Type 2 RSI: Non-Specific Pain Syndrome (NSPS)

A significant proportion of those with upper limb pain and dysfunction do not show signs which are easily recognised and can be observed or easily reproduced on examination. These people may have pain which is not focussed on one area and their pain may move from one site to another. For example, while there may be tenderness of the ligaments around joints, there will be no visible joint swelling. Examination often identifies very little, if anything, in the way of objective abnormalities, yet patients may complain of ever-worsening symptoms. This condition, also known as neuropathic arm pain (NAP) or "diffuse-RSI", is not recognised as an industrial disease.

The cause of NSPS has been at the centre of much medical and legal discussion. Until recently some medical practitioners, unable to ascertain its origin, have considered it to be 'psychogenic' in nature, and it has even been said to be 'all in the mind'. This presumption has led to a great deal of distress among those afflicted with the condition who (nevertheless) have been dismissed as being 'hysterical'.

The results of recent research conducted at University College London by Dr. Bruce Lynn and Dr. Jane Greening found that, in the non-specific cases of RSI, there are nerve changes occurring which are not identified by any examination technique or test, but which can be measured as changes in vibration sensitivity in nerves in the arm and wrist. The research concludes that this nerve damage is physical in origin.

At the High Court in May 1998, and upheld at the Court of Appeal in July 1999, the Court found in favour of five bank workers suffering from diffuse-RSI (Alexander and Others -v- Midland Bank plc). People in the UK with neuropathic arm pain may also take heart from the judgement of Judge Tyzak QC, Plymouth County Court, February 9, 2001 in the case of Gallagher v Bond Pearce that a claimant did suffer from injury, described in Court as 'Type 2', "**albeit there were no physical signs of it**". An award of £87,000 was made.

Prevalence

Upper limb pain and dysfunction caused by work (usually of a repetitive nature) is not a new phenomenon and has been well documented for 300 years in jobs such as clerical work and telegraphy. However, from the late 1970s countries as diverse as Australia, Russia, Japan, Finland, the US and the UK reported dramatic increases in musculoskeletal conditions; this period of time was significant as it saw the widespread replacement of typewriters with computers and a consequent increase in the automation of work. Many workers spend long periods in a fixed position, performing a range of tasks without moving from their workstations and using only a limited range of movement to operate their keyboards. This trend has continued over the last 20 years with rapid technological advance and the rise of the service industries. Large numbers of workers spend their entire working day inputting data onto computers. Many others have to work in painful and tiring positions.

There is clear evidence that RSI conditions are strongly work-related and the causes have been found to be related to the design of work systems. Major research projects conducted by the European Agency for Safety and Health at Work, and the Agency's Europe-wide campaign to lift the burden of work-related musculoskeletal disorders in October 2000, are a clear indication of the serious nature of the problem and the importance of identifying future needs and priorities. According to a recent European survey, 30% of workers complain of backache; 17% complain of muscular pains in their arms and legs and 45% report working in painful or tiring positions. The figure of 17% who reported muscular pain amounts to 25 million workers.

There is no doubt that, while RSI has been reported for a long time, exact prevalence is unclear for a number of reasons including under-reporting and misdiagnosis. However, the regular Labour Force Survey on work-related ill-health, conducted by the Health and Safety Executive (HSE), found that 506,000 workers in Great Britain have a work-related neck or upper limb disorder. For example, an estimated 36,000 workers were reported to have Vibration-induced White Finger, a cumulative condition related to the use of hand-held power tools.

Findings now suggest that these may be significant underestimates. A report from the first systematic survey of occupational exposure to hand-transmitted vibration, conducted by Southampton University's Medical Research Council Environmental Epidemiology Unit for the HSE and published in 1998, revealed that over a million people in Britain have symptoms of tingling and numbness in their hands associated with the use of vibrating tools. Of those, 515,000 have disturbed sleep and 355,000 find it difficult to "do up buttons".