Repetitive Strain Injuries (RSI)

WHAT'S AT STAKE?

Repetitive Strain Injuries (RSI) is not one diagnosis, but rather an umbrella term for disorders such as Bursitis, Carpal Tunnel Syndrome, tennis elbow, tendonitis, and trigger finger. Also known as Cumulative Trauma Disorder, RSI is caused by constantly repeated physical movements, awkward postures and sustained force, among other risk factors. These repetitive motions damage the soft body tissues (tendon, cartilage, nerves, ligaments, and muscles) that are involved in producing the motion.

RSI is a painful and potentially debilitating condition that if left untreated, can lead to permanent damage.

WHAT'S THE DANGER?

RSI IS MOST COMMONLY CAUSED BY REPEATED ACTIONS THAT ARE CARRIED OUT ON A DAILY BASIS OVER A LONG PERIOD.

Symptoms of RSI

- Pain or tenderness
- Stiffness or joint restriction
- Tingling or numbness
- Cramping
- Swelling in the hands or forearms
- Referred pain – where the pain is felt in a different part of the body to the one that is injured.

Two Main Types of RSI:

- **Type 1**– pain is the result of a recognized medical condition such as tendonitis, cellulitis or carpal tunnel syndrome.
- **Type 2**– no specific diagnosis can be made, and the injury is often referred to as non-specific upper limb pain or diffuse RSI.

SIGNIFICANT RISK FACTORS

- carrying out repetitive tasks for long periods without suitable rest breaks

- poor posture or activities that require you to work in an awkward position
- poor working environment setup

OCCUPATIONS AT RISK/DANGERS

These manual tasks are at risk

- Office work (such as typing and clerical duties)
- Process work (such as assembly line and packing duties)
- Piece work (such as sewing)
- Manual work (such as bricklaying and carpentry)

Psychological Stress

- Studies have shown that the onset of repetitive motion injuries may be affected by factors like work satisfaction.
- People who experience high amounts of psychological stress at work are *more likely*to develop repetitive motion injuries than those who don’t experience high amounts of stress.

Overview

Any manual task that requires repetitive movements or working in fixed or awkward positions for long periods of time can trigger a repetitive strain injury.

HOW TO PROTECT YOURSELF

TREATMENT

Minor repetitive motion injuries can be treated with home remedies, such as:

- Rest
- Ice packs
- Over-the-counter pain relievers

For repetitive strain injuries that are more serious, the following may be necessary:

- **Physical rehabilitation.** Physical rehabilitation for repetitive stress injuries may include occupational therapy, exercise programs to stretch and strengthen the area, condition exercises to prevent further injury, pain management techniques, and education regarding proper ergonomics for the workplace.
- A surgical procedure that can improve tendon health may be necessary. Damaged tendons can be removed to promote the formation of healthy tissue and, in certain cases, surgeons can repair tendon tears to reduce pain and restore function.

“THE WHAT TO DO”

Seek out a medical provider. The most important thing for you to do is seek medical attention the moment that repetitive motion injury symptoms appear. By seeking medical attention early, you may be able to avoid developing a more serious injury.

Tell your employer. The law requires that employers identify and correct hazards such as those that lead to repetitive strain injuries. An employer can't fix the problem if they're not aware that a problem exists in the first place.

PREVENTION

Good Ergonomics

The best way to avoid repetitive strain injuries is to implement good ergonomics in your workplace. Ergonomics is a science concerned with designing and arranging things people use to avoid occupational injury. Ergonomics looks at the design of tools, equipment, workstations, and job tasks.

Examples of "good" ergonomics:

- Adjusting a workstation to fit a specific task
- Properly locating bins so workers can place products in the bins rather than tossing the products
- Mechanical supports to eliminate the use of extreme force
- Varying the speeds of conveyor belts so certain activities can be performed at slower rates
- Adjusting a seat so that it's tilted slightly forward to encourage good posture

In addition, the following more general tasks can help prevent repetitive strain injuries:

- Report early symptoms before they get worse
- Ease back into work after a vacation
- Maintain good general health and fitness
- Take regular breaks

WHAT EMPLOYERS CAN DO

1. **Invest in properly set up workspaces for employees**
    - Studies show that for every $1 invested in injury prevention, $2 or more was returned. 40% of CFOs reported that increased employee productivity was the greatest benefit.
    - Blue Cross reported a 70% reduction in lost workdays and an 89% reduction in worker's compensation costs after it improved office ergonomics.
2. **Educate and train employees** about the risk of RSI so they can identify potential ergonomic problems and recognize symptoms early.
3. **Encourage employees to report any symptoms or issues** they are experiencing early so that the appropriate intervention can be implemented.
    - If RSIs are left without treatment or correction these symptoms can evolve into chronic or crippling disorders.
    - On average, an employee with an RSI is off work for 7 weeks; longer if it becomes a chronic condition.
4. **Allow for regular breaks throughout the working day.**
    - Not only is it beneficial for employees to stretch or do some light exercise throughout the day (especially office workers), studies show that taking a brief break every 50 minutes improves productivity, focus, and creativity.

MORE HELP FROM EMPLOYERS

To reduce the risk of RSI or any other harm or injury, employers should also:

- consult employees on potential risks arising from their work
- consider changing the way work is organized
- provide clear instructions, information and training on any measures being taken to control the risks
- help sufferers when they come back to work.

FINAL MEASURES

Simple Procedures That Help Prevent RSI Using Standard Equipment

- resting your feet flat on the floor, or on a footrest
- sitting central to the curve on any curved desk
- placing your screen at eye level and directly in front of you
- having your keyboard directly in front of you, with a space at the front of the desk to rest your wrists when you are not typing
- positioning your mouse as close to you as possible so you can use it with your wrist straight, avoiding awkward bending
- using a 'compact' keyboard without a number pad (if you do not do much number work) so that the mouse can be brought in closer still
- avoiding reflections from overhead lighting and sunlight
- using a document holder, to avoid bending your neck – position this centrally (with your monitor to the side) to also avoid twisting (if you tend to look at documents more than the screen)
- touch typing, to spread the load
- using predictive text and auto-correct features, to reduce keystrokes
- learning common keyboard shortcuts, to reduce the use of the mouse
- slowing your mouse down, to reduce muscle tension.

Laptops / Tablets / Smartphones

The main problem with laptops is that the keyboard is attached to the screen, this has a tendency to create a poor posture. To reduce such risks when working with a laptop for sustained periods, a good practice is to:

- use a separate keyboard, screen and mouse
- place your laptop on a raiser (so the screen can be raised as close to eye-level as possible)
- If using neither an external keyboard or mouse (not recommended for long periods of work), make sure that the laptop is on a stable base and not your lap
- take regular short breaks to relieve upper body tension
- sit up straight with your back supported.

FINAL WORD

As with any hazards, RSI are best eliminated at the source which, in this case, is the repetition of the tasks performed. Prevention of these injuries should focus on eliminating repetitive work through job design which may involve mechanizing certain tasks. In addition, jobs should be structured so that workers can rotate between various tasks where they do something completely

different, using different muscles groups.