Occupational Overuse Syndrome

Bulletin No. WH 06.01.06

Ergonomics & Manual Handling - Occupational Overuse Syndrome

Many people would have heard of the term Repetitive Strain Injury or RSI. This term has been replaced by the more correct term of OOS as repetition has been found to be only one of the factors involved in this condition.

WHAT IS OCCUPATIONAL OVERUSE SYNDROME?

It is a generic term that is used to describe a large group of ailments that have occurred due to the nature of a person’s work or the manner in which they are performing it. Typically this group of ailments can include inflammatory conditions of the tendons or muscles of the wrist, fingers and forearms. It can also include pain in the arms, shoulders, neck or for that matter any area of the body that is overloaded by the type or nature of the job.

HOW WOULD I KNOW IF I HAD OOS?

The symptoms of OOS are many and varied but usually they start as a general ache or tingling in the affected part that comes on after a period of work or at the end of the day. These symptoms, if untreated, can worsen to constant pain or numbness that affects not only the work but day to day activities also. In a very few cases the results can be significantly debilitating, so prevention and early intervention are the key to controlling OOS.

WHAT CAUSES OOS?

There are many risk factors that are known to contribute to the incidence of OOS. Following is a list of some of those factors and what can be done about them.

Poor workstation and workplace layout -

Make sure the workstation suits the postural requirements of the worker. Purchase adjustable furniture only after considering the task it is required for and the person or persons who will perform the task. Look at the work processes to reveal situations where better work organization will reduce the physical stress on the worker.

Often improving work organization will increase productivity as well as safety. (See Work Health information bulletin “Keyboard workstation assessment checklist” and the Work Health publication “Manual Handling”).

• Poor or prolonged working postures - Poor posture is best addressed by making the changes suggested above however even good postures should not be maintained indefinitely. Anyone engaged in an activity that involves prolonged postures should take regular short breaks (micro breaks), that can be as little as one minute to do some simple stretches or movements that reverse the position they have been maintaining (e.g. if you have been sitting, stand and arch your back).

• Excessive duration and high frequency activities - These activities should be broken up by increasing the variety of work. This allows tired muscles to recover while different muscle groups are being used. Most workers are more mentally stimulated by the increased variety as well.

• High forces applied - Using force to hold, move or restrain an object requires a great deal of muscular effort. Where possible the worker should not be required to exert forces which they find uncomfortable.

• Poor work organization - Giving the worker more control over the workflow can reduce the risk of injury. Likewise, bonus and piece rate systems through their effect on workflow and on work organization can increase risk.
Lack of skills and experience - Training and education programs are essential to the success of any injury prevention program.

Other personal or individual factors - For example, if a person is away from work for a length of time, they will require a period of adjustment to return to previous working rates. The adjustment period will depend on the individual and on the length of their absence. If your work involves one or more of these factors then you are more likely to develop symptoms of OOS. To prevent the development of OOS the jobs, tasks and the work environment (including furniture and equipment) need to be designed such that all the factors that contribute to the risk of injury can be avoided or minimized.


Bulletin No. WH 06.01.07
Ergonomics - Screen based equipment and your eyes

Many workers experience eye and vision difficulties when using screen based equipment. This information bulletin outlines some basic considerations for improving the visual environment of your workstation.

LEGISLATION
Regulation 60 of the Work Health (Occupational Health and Safety) requires the employer to ensure when designing, arranging and maintaining a workplace that visual requirements of workers are taken into account.

IDENTIFYING EYE AND VISION DIFFICULTIES
Using screen-based equipment is a visually demanding task, and can cause symptoms such as:

- Eyestrain (sore eyes or eye fatigue),
- Headache,
- Blurred vision,
- Slowness in changing the focus of the eyes,
- Blurred distance vision after near work,
- Glare or light sensitivity,
- Eye irritation (burning, dryness, redness),
- Contact lens discomfort,
- Neck and shoulder pain, and even
- Back pain.

The visual capability of every person is different and therefore the work environment will require some form of individual assessment. Work Health Information Bulletins 06.01.02 to 06.01.06 outline how you should set up your workstation to suit your needs.

Some aspects of the visual environment require special consideration for workers who are experiencing problems.

These include:

Is the person wearing bifocal or multi-focal lenses?
These are designed for daily use and are generally not suitable for screen-based use. A person using these lenses will usually need to adopt awkward postures in order to use the glasses.
**Where is the computer screen located?**
In visually demanding jobs we naturally tend to position ourselves to improve eye comfort. In other words we let our eyes determine our posture. Information Bulletin 06.01.04 outlines how to adjust the position of your screen to suit your eyes and your posture.

**Is there glare on the screen?**
The decrease in contrast caused by glare on the screen makes it more difficult to maintain eye focus and coordination and aggravates some sight disorders. Information Bulletin 06.01.04 looks at positioning the screen to avoid glare. This should be attempted before trying an anti-reflection filter, however if you do choose to use a filter, the glass varieties tend to be better than the mesh varieties.

**Are there any bright lights in the workers peripheral vision?**
When using computers you look straight ahead and this can bring other lights into your peripheral vision. This can contribute to glare discomfort. Look at your screen and use your hands to shield any bright peripheral light. If you notice an immediate improvement, something should be done about the light. Turning off selected lights, reducing light levels, replacing diffusers to direct light differently, installing curtains and changing the orientation of the workstation are all possible solutions.

**Are there any complaints of irritated eyes or contact lens problems?**
Computer users tend to blink less than usual and this combined with the dehumidified air of an air-conditioned office environment can lead to dry eyes. Air vents directing breezes toward the face can cause further problems. Artificial tears can help but if dry eye problems persist you should consult your doctor.

**Does the worker get visual rests?**
Maintaining the same focal length for long periods can be tiring. Information Bulletin 06.01.05 outlines some simple exercises for providing your eyes with a visual rest. Whilst regular eye testing is a good idea, too often workers will seek glasses as the only solution to eye fatigue from screen based equipment. This can be an expensive alternative if the problem is not related to some physical visual deficit. Try some of the simple solutions outlined in this bulletin to see if your symptoms reduce.

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**Exercises to Prevent OOS**

**NECK**
- **Head rolls**
  Gently lower ear to shoulder and hold for 10 seconds. Slowly roll chin to chest and up to other shoulder and hold for 10 seconds. Repeat several times and be careful not to extend your neck back too far.
- **Head turns**
  Turn head to look over left shoulder and hold for 10 seconds. Turn head the other way and hold for 10 seconds. Repeat several times.
- **Chin tucks**
  Raise the head to straighten the neck. Tuck the chin in and upwards creating a double chin. This also results in a forward tilt of the head. Hold for 10 seconds and repeat several times.
SHOULDERS
- Shoulder Rolls
  Circle shoulders forward several times, then backward. Repeat 3 to 5 times.
- Shoulder Stretch
  Stretch arm above head, cradle elbow with hand and gently pull elbow behind the head. Hold for 10
  seconds and repeat several times.

WRISTS, HANDS AND ARMS
- Wrist Stretch
  Interlace fingers, palms outward, and straighten arms in front. Hold for 10 seconds and repeat several
  times.

UPPER AND LOWER BACK
- Upper And Lower Back Stretch
  Interlace fingers and turn palms upward above head; straighten arms then slowly lean slightly from
  side to side. Repeat movement several times.
- Back Arching
  Stand up. Support lower back with hands and gently arch back. Gently arch back and hold for 5 to 10
  seconds. Repeat as often as is needed.

LEGS
- Foot Rotation
  Hold onto the chair with hands either side. Straighten leg and lift foot a few centimetres off floor.
  Rotate foot and ankle both ways (point toes up) and extend (point toes down). Repeat several times per
  foot.

EYES
- Eye Exercise
  Sit up straight, face forward and repeat this sequence several times without moving head. Look up, then
down. Look left then right.