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Repetitive Strain Injury

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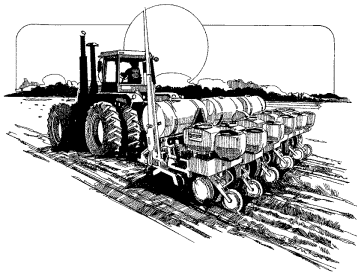
Utah State University Extension

Agricultural Health and Safety
Fact Sheet AHS-06

Repetitive Strain Injury



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Repetitive Strain Injury is a serious condition that is painful and often debilitating. Also known as Cumulative Trauma Disorder, RSI occurs from physical movements that are repeated with a high rate of frequency. These repetitive motions damage the soft body tissues (tendons, cartilage, nerves, ligaments, and muscles) that are involved in producing the motion. RSI is not a condition that is age specific affecting young people who are considered to be in good physical health. The good news is that RSI is much easier to prevent than to cure once it has developed.

For the successful prevention of RSI, it is important to be educated about the following:

1. Common ailments that result from RSI.
2. Activities and factors that put you at risk of developing RSI.
3. Symptoms of RSI.
4. Changes that can be made both at home and at work that will reduce your likelihood of developing RSI.

Common RSI Ailments

Bursitis - Bursitis is the inflamation of the sacs (bursas) in the joints that protect the muscles and tendons as they move across the bones in the knee, wrist, elbow, and shoulder.

Carpal Tunnel Syndrome - CTS is a swelling of the linings surrounding the wrist. This leads to a compression of the nerve that provides the wrist with the majority of its feeling. The end result is sharp needle-like pain in the wrist and hands. This is common for people who work extensively with computers.

Tennis Elbow - This is an inflamation of the tendons that attach the muscles of the forearm to the elbow.

Tendinitis - Like Tennis Elbow, tendinitis is an inflamation of a tendon most frequently occurring in the shoulder, elbow, forearm, or wrist.

Trigger Finger - This is a swelling of the sheath surrounding the tendon in the finger or thumb. The effect can be a finger locked in a bent position or pain, cracking, or popping when the fingers are bent.

Risk Factors and Activities

- Awkward and static postures - i.e., standing, sitting, and reaching for long periods.
- Repetition of movements/Vibration - i.e., performing a single task continuously, work, working with a chainsaw or jackhammer.
- Forceful exertion - i.e., heavy lifting.
- Cold temperatures - i.e. ,working outside and in refrigerated areas.
- Smoking.

- Obesity.
- Arthritis.

Symptoms of RSI

There are many symptoms and signs to watch for that are early indicators of RSI. Symptoms include:

- Tingling, coldness, or numbness of the joints.
- Clumsiness and loss of strength and coordination.
- Pain that prevents you from getting to sleep, or that wakes you up at night
- Tightness, stiffness, discomfort, and soreness in the hands, forearms, elbows, shoulders, neck, and back

Changes for Successful Prevention of RSI

- **Practice good posture.** Practicing good posture is as important for the prevention of RSI as any ergonomic device. Anything that creates an awkward reach, position, or angle for the body can create problems. When sitting, standing, or performing other activities for a considerable time, relax, move around, and shift positions frequently. Sit with your back straight. Take frequent breaks that allow you to adjust, stretch, and relax your muscles. It is also important to remember that even a perfect posture can result in problems if it is held too rigidly over a long period of time. Bringing tools within easy reach of you helps to create fewer awkward positions for your body.
- **Stay warm and stretch.** Keeping your body warm, including your hands, is very important. Cold muscles are less flexible and much more susceptible to injury and strain from overuse.
- **Use caution when lifting.** Be sure that you are close to the object. Do not bend over to lift. Keep your back straight and lift with your leg muscles. Do not twist your body while lifting.
- **Reduce your stress.** Stress results in high blood pressure, restricted blood flow, and muscle tension, all increasing your risk of RSI. Minimize stress by exercising three times a week for 30 minutes. Stop smoking, and reduce your caffeine intake.
- Listen to your body. Pain is your body's way of telling you it is in trouble. Listen! Pain, if ignored, can result in reduction in your range of motion, restriction of activities, and even surgery.

Summary

If you have, or are experiencing any of the symptoms of RSI, go to your doctor or health provider. Do not wait! A combination of early diagnosis and a few changes can reduce the damage to your body, minimize pain, and maximize the enjoyment you get from life.

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