Repetitive Motion Disorders

Repetitive motion disorders (RMDs) are a variety of muscular conditions. They result from repeated motions performed in the course of normal work or other daily activities. RMDs can occur in the:

- Hands.
- Wrists.
- Elbows.
- Shoulders.
- Neck.
- Back.
- Hips.
- Knees.
- Feet.
- Legs.
- Ankles.

But the hands and arms are most often affected.

CAUSES

RMDs may be caused by:

- Overexertion.
- Incorrect posture.
- Muscle fatigue.
- Compression of nerves or tissue.
- Too many uninterrupted repetitions of an activity or motion.
- Friction caused by an unnatural or awkward motion such as twisting the arm or wrist.

Over time, these conditions can cause temporary or permanent damage to the soft tissues in the body. Examples include the muscles, nerves, tendons, and ligaments. Generally, RMDs affect individuals who perform repetitive tasks such as:

- Assembly line work.
- Meatpacking.
- Sewing.
- Playing musical instruments.
- Computer work.

The disorders may also affect individuals who engage in activities such as carpentry, gardening, tennis, and lifting children.

SYMPTOMS

RMDs may include such conditions as:

- Carpal tunnel syndrome.
- Bursitis.
- Tendonitis.
- Epicondylitis.
- Ganglion cyst.
- Tenosynovitis.
- Trigger finger.

Symptoms of these disorders may include:

- Pain.
- Tingling or numbness.
- Visible swelling or redness of the affected area.
- Loss of flexibility and strength.

For some individuals, there may be no visible sign of injury. But they may find it hard to perform easy tasks.

TREATMENT

Treatment for RMDs usually includes reducing or stopping the motions that cause symptoms. Splints may relieve pressure on the muscles and nerves. Medication such as pain relievers, cortisone, and anti-inflammatory drugs may reduce pain and swelling. Physical therapy may relieve the soreness and pain in the muscles and joints. In some cases, surgery may be required to relieve symptoms and prevent permanent damage. Other treatment options may include:

- Taking breaks to give the affected area time to rest.
- Stretching and relaxation exercises.
- Applying ice to the affected area to help reduce pain and swelling.

Many companies have developed ergonomic programs to help workers adjust their pace of work and office equipment to minimize problems.

WHAT WILL HAPPEN

The majority of individuals with RMDs recover completely. They can avoid re-injury by changing the way they perform repetitive movements, the frequency with which they perform the movements, and the amount of time they rest between movements. Without treatment, RMDs may result in permanent injury and complete loss of function in the affected area.

RESEARCH BEING DONE

Much of the on-going research on RMDs is aimed at prevention and rehabilitation. The National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) funds research on RMDs.

Research is continually being done to learn more about this problem.

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