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Preventing Injury: Musculoskeletal Disorders

Most injuries in construction workers are sprains and strains of the muscles. Construction work can also cause injuries to the joints, bones, and nerves. These injuries often occur from constant wear and tear on the body. Taken together these injuries are called **musculoskeletal disorders**. Generally, musculoskeletal disorders in construction workers affect the hand and wrist, the shoulders, neck and upper back, the low back, and the hips and knees.

Examples of Musculoskeletal Disorders:

Carpal Tunnel Syndrome: A problem of the nerve in the hand and wrist, caused by repeated bending of the wrist, holding tools or materials tightly, or constantly pressing the wrist against a hard object. Classic symptoms include: numbness, tingling, burning, and pain. In severe cases, there may be wasting of the muscles at the base of the thumb; dry shiny palm; clumsiness of the hand.

Tendinitis: An inflammation and soreness in tendons, caused by repeated movement of a joint. Depending on where the injury occurs, a different name is assigned to the disease. Symptoms include a burning pain or dull ache, swelling or puffiness, snapping or jerking movements (crepitus), Ganglionic cysts (a thick mucous fluid which can form within a tendon sheath). Tendonitis is associated with work that requires repetitive motions like using a staple gun, rotating or twisting motions. Tools that are too small or too large for the hand can also put stress on the tendons.

Back Pain: Caused by repeated lifting of materials, by sudden movements, whole body vibration, lifting and twisting at the same time, bending over for long periods of time. Back problems, which seem to appear overnight, may have been building up slowly over a period of time.

Thoracic Outlet Syndrome: A problem caused by reduced blood flow in the shoulder and arm caused by overhead work or carrying heavy items in the hands with the arms straight down.

Degenerative Disc Disease: Caused by damage to the gel-like cushions between the spinal vertebrae or bones. Released gel presses on the nerve. Symptoms of this disorder include numbness, pain and weakness, usually in the leg and hips, but sometimes in the arms and upper back.

Risk Factors for Hands, Wrists, Neck and Shoulders:

- Forcefulness or muscle effort.
- Awkward body posture.
- Repetitive work.
- Vibration from hand tools.
- External contact stress from tools and sharp objects.

Risk Factors for Back Injury and Pain:

- Lifting
- Pushing, pulling, tugging
- Twisting, reaching, sideways bending, unequal lifting
- Working in a single position
- Whole body vibration

Tips for Prevention of Musculoskeletal Injuries:

- Stretch before you begin work and periodically throughout the day.
- Get help to lift heavy loads or use a forklift
- Work near elbow height to avoid excessive bending.
- Avoid overhead reaching and kneeling when possible.
- Where awkward postures are unavoidable, change tasks, stretch, and take short breaks frequently.