Static Body Postures

Asymmetrical and awkward standing, sitting and kneeling postures, along with static loading grossly distorts circulation to lumbar spine and surrounding muscles. Increased rates of low back pain and related musculoskeletal disorders can occur.

Static body postures are primarily encountered in all of the tasks observed. Prolonged standing and/or seated postures with static loading grossly distort circulation of the lumbar spine and surrounding muscles. Increased rates of low back pain and related musculoskeletal disorders can occur.

To understand the injury potential with static body postures, an understanding of dynamic effort versus static effort must first be understood. Dynamic effort, or dynamic muscle work, is characterized by arrhythmic alteration between contraction and relaxation of muscles. This results in the muscles acting as small "pumps" which help supply blood and nutrients to effected tissues.

Static muscle work is characterized by a prolonged state of contraction which implies a postural stance or constrained muscle. This results in the muscles being tensed without contraction and relaxation. Thus, lactic acid buildup occurs as the muscles then do not receive an increased blood supply from the "pumping action" typically associated with the contraction and relaxation of dynamic work. This results in muscle fatigue. Examples of tiring static effort are:

- Jobs that involve bending the back either forwards or sideways while the arms are holding such things as books, tools, or other loads.
- Operations requiring the arms to be lifted up horizontally.
- Standing in the same place for prolonged periods.
- Bending the head strongly upward or downward.
- Lifting the shoulders for prolonged periods.
- Remaining in a stationary standing or sitting position for prolonged periods.