## WORKSAFE

Mahi Haumaru Aotearoa

#### **ANNEX 1**

# **Defining MSDs and WRMSDs**

Musculoskeletal disorders (MSDs) affect the lives of many New Zealanders and contribute to high numbers of injury claims in our workplaces. Work-related Musculoskeletal Disorders (WRMSDs) as a subset of MSDs have been poorly defined. Defining the nature of musculoskeletal health risk is essential to guide how we might act as a health and safety regulator, to reduce harm to New Zealanders. We propose the following MSDs and WRMSDs definitions for WorkSafe New Zealand use.

### **MSDs** definition

MSDs are injuries and conditions affecting the muscles, ligaments, bones, tendons, blood vessels, and nerves. MSDs may also include inflammatory conditions (for example, rheumatoid arthritis, gout), degenerative conditions (for example, osteoarthritis), bone density conditions (for example, osteoporosis) and pain conditions (for example, fibromyalgia).

The term MSDs is appropriate to use when referring to general conditions of the musculoskeletal system.

### **WRMSDs** definition

WRMSDs are injuries and conditions affecting the muscles, ligaments, bones, tendons, blood vessels, and nerves. WRMSDs occur when work demands lead or contribute to pain, discomfort, or injury.

The term WRMSDs should be used when referring to conditions of the musculoskeletal system that occur when work demands lead or contribute to them.

Multiple work factors usually cause the injury or condition. Risk factors often work in combination including physical and biomechanical, organisational, psychosocial, environmental, and individual factors. Both manual and sedentary work have risk factors that may lead to WRMSDs. Non-work factors may also contribute to injury risks (for example, mountain-biking after work might add to forearm muscle loading from the workday).

Work risk factors that contribute to injury include:

- biomechanical and physical
  - forces/loads (for example, weight of loads, forces to move objects, sudden force)
  - task duration/repetition (for example, repetitive, sustained)
  - workplace layout (for example, workstation design)
  - vibration (for example, hand/arm or whole body vibration)
  - awkward postures (for example, sit, stand, overhead reach, stoop, kneel, constrained)
- work organisation (for example, workplace/plant design, task/equipment, shifts, training/education)
- environment (for example, temperature, humidity, lighting, noise)
- individual (for example, age, body size, previous injuries/fitness, fatique/mental state)
- psychosocial (for example, job demands, workload, control and support, job satisfaction).

Most WRMSDs develop over time. They can also occur suddenly from a specific event or series of events. WRMSDs may be injuries from a work-related incident or accident.

WRMSDs vary in severity. They may start as mild aches and pains but can develop into a serious condition. Symptoms may include pain or discomfort, and loss of strength, sensation, dexterity, or function. They can be recurring and long lasting. In many cases, WRMSDs impact the ability to work and do other daily activities.

WRMSDs in New Zealand have been called sprains and strains, repetitive strain injury, occupational overuse syndrome or discomfort, pain, and injury among other things. For public use, other terms can be used.

**WorkSafe preferred term.** WRMSDs is preferred for use within the work health and safety regulatory and professional context.