MATERIAL HANDLING & LIFTING GUIDELINES

MATERIAL HANDLING

Material handling is defined as using any part of the body to lift, move, push, pull, retrieve, carry, or climb with any materials such as people, inventory, merchandise, tools, raw materials, or supplies found in the work environment. Overexertion can cause sprain/strain injuries to our musculoskeletal system causing pain and discomfort. Other factors to consider that can contribute in causing these injuries are:

- Poor physical fitness
- Lack of flexibility
- Participation in certain recreational activities
- Emotional stress
- Lack of rest
- Poor back support when sleeping
- Poor posture when sitting and standing for long periods

The employee has the greater control of these factors and should consider them when addressing overall health concerns.

The employer, the Park District, will focus on factors that can be controlled in the workplace and will implement engineering, administrative or training controls to eliminate or reduce hazards on the job that can contribute to musculoskeletal injuries.

PRIORITIES FOR RISK CONTROL

1. Eliminate need for manual materials handling by using mechanical aids such as:
   - Lift tables
   - Lift trucks
   - Hoists and cranes
   - Drum and barrel dumpers
   - Conveyers

2. Change work area layout by:
   - Changing height of work level.
   - Changing worker level.
   - Providing all material at work level.
   - Minimizing horizontal distance between operator and load.
   - Decreasing vertical distance load travels.
   - Limiting stacking heights to shoulder height.
   - Keeping heavy objects at knuckle height.

3. Decrease job demands by decreasing object weight by:
   - Assigning the job to 2 or more persons.
   - Distributing the load into 2 or more containers.
   - Reducing container weight.
   - Reducing hand force.

4. Change type of manual materials handling activity by:
   - Changing from lifting to lowering.
   - Changing from carrying to pulling.
   - Changing from pulling to pushing.

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5. Maximize time to perform job by:
   - Reducing frequency of activities.
   - Incorporating work/rest schedules.
   - Utilizing job rotation.

LIFTING

Lifting is one of the most dangerous activities for the spine. The neutral position **MUST** be used to reduce the risk of injury. Lifting in a neutral position allows the larger and more powerful leg muscles to do the lifting.

- Avoid manual lifting of heavy objects whenever possible. Manual lifting is one of the most common causes of workplace injury. If you are manually lifting heavy objects, you are at risk for injury. Use mechanical means when possible.
- The closer the object, the easier it is to lift.
- Avoid twisting as you lift to help keep your back strong and free from injury.
- Use lifting handles whenever possible.
- Good footing is a must.

1. How to lift properly.

Squat down close to the object; maintain a natural curve of back.

Right

   a. Test the weight of the object by lifting or tilting a corner.
   b. If the object is too heavy:
      1) Divide into smaller loads.
      2) Get someone to help.
      3) Use a mechanical device.
   c. Grasp object firmly.
   d. Keeping the object close in, lift it while straightening the legs and tightening the stomach and buttock muscles.
   e. Never twist or jerk the body.
   f. Avoid lifting to the side.
   g. Avoid overextending and reaching too far.

Wrong

2. How to carry an object

   a. Select a clear route of travel and maintain an awareness of surface conditions.
   b. Keep a firm grip on the object and carry it close to the body.
   c. Do not allow the load to obstruct view.
   d. Do not twist the body; change direction by moving the feet.

3. How to set an object down

   - Face the spot where the object is to be placed.
   - Squat down; maintain a natural curve of back.
   - Lower object, first on to one corner or onto a support to avoid finger injuries.
   - Lower the object into final position keeping fingers out of the way.