

Reducing Physical Demands Floor Wet Mopping

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This document has been compiled by the [Department of Occupational Health and Safety](#)

Sources:

1) [MSI PREVENTION BULLETIN 5: Floor Mopping](#)

(WorkSafeBC, Workers Compensation Board of British Columbia)



2) [Working Safer and Easier: for Janitors, Custodians, and Housekeepers](#): pp59-63

(Cal/OSHA Consultation Service, California Department of Industrial Relations)

MSI PREVENTION BULLETIN 5

Floor Mopping

Housekeepers, cleaners, and custodians often perform floor-mopping tasks. This bulletin provides information regarding the typical musculoskeletal issues faced by workers performing this task and some possible risk control measures to either eliminate or minimize the MSI risk. This information is only a guideline, and the employer must still complete an MSI risk assessment to accurately determine the risks and appropriate control measures applicable to their worksite for floor mopping activities.

MSI Issue: Clearing the Area to Be Mopped	Possible Risk Control Measures
<ul style="list-style-type: none">• Worker lifts and moves furniture such as tables and chairs that are heavy, unbalanced, odd-shaped, or difficult to grasp or hold onto.• Worker lifts furniture using an awkward posture, for example, stooped or twisted.	<ul style="list-style-type: none">• Use a mechanical lift assist.  <ul style="list-style-type: none">• Have a second person help lift and carry furniture.• Use portable caster bases to move the furniture. Workers need to lift the furniture onto the casters, but pushing and pulling is reduced.
MSI Issue: Wet Mopping the Floor Area	Possible Risk Control Measures
<ul style="list-style-type: none">• The arm grasping the top of the mop handle is held with the elbow away from the body, resulting in an awkward shoulder posture. This may be because the mop is too high for the worker or because of a poor work technique. 	<ul style="list-style-type: none">• Ensure the mop handle is not higher than the worker's eye level.• Instruct workers to keep their arm close to the body.



MSI Issue: Wet Mopping the Floor Area <i>(continued)</i>	Possible Risk Control Measures
<ul style="list-style-type: none"> • Worker applies excessive force during push/pull action while mopping. • Worker forcefully grips the mop handle if the diameter is too small (less than 3 cm or 1.2 in.) for hand size (as indicated by the thumb and forefinger overlapping excessively). • Worker bends wrists. • Worker squats or kneels on the hard floor to reach underneath items. • Worker keeps head bent down and forward in a static (stationary) posture while looking down. 	<ul style="list-style-type: none"> • Provide smaller mop tops and encourage their use. • Provide lighter plastic or aluminum mop handles instead of wooden handles. • Ensure workers wring excess water out of mop tops before use. • Enlarge the mop handle with padding such as firm compressible foam, plastic, or tape. • Train workers to maintain a loose grip on the mop handle and to avoid excessive wrist bending. • Provide kneepads or foam to allow workers to kneel safely and avoid awkward stooping postures and contact stress on their knees. • Train workers to take frequent short breaks from constantly looking down.
<ul style="list-style-type: none"> • Worker bends forward with the mop. 	<ul style="list-style-type: none"> • Train workers to move their feet to get closer to the area being mopped. • Ensure mop height is not below shoulder level when mopping.
<ul style="list-style-type: none"> • Worker twists when mopping. 	<ul style="list-style-type: none"> • Arms crossing past the midline of the body during the mopping motion indicate that too large an area is being mopped in one motion. Train workers to mop so that their arms do not cross the midline of body and they are not twisting at the waist. • Ensure workers move their feet side-to-side as they mop.



MSI Issue: Wringing Out the Mop	Possible Risk Control Measures
<ul style="list-style-type: none"> • Worker experiences contact stress in the palm of the hand from pressing down on the wringer handle. The wrist may also bend backwards. • Worker stoops forward to press the wringer down. <div data-bbox="164 527 508 779" data-label="Image"> </div> <div data-bbox="540 527 885 779" data-label="Image"> </div>	<ul style="list-style-type: none"> • Provide a wringer with a longer handle, which requires less force to squeeze water out of mop tops. • Pad the wringer handles or install a plastic grip cover on the metal handle to reduce the contact stress. • Train workers to bend their knees, wringing from the side of the body instead of reaching forward to the wringer. • Provide higher buckets so workers don't need to bend over as far.
MSI Issue: Emptying Mop Bucket	Possible Risk Control Measures
<ul style="list-style-type: none"> • Worker lifts the mop bucket up off the floor to empty the water into a drain or hopper. <div data-bbox="164 999 508 1251" data-label="Image"> </div> <div data-bbox="540 999 885 1251" data-label="Image"> </div>	<ul style="list-style-type: none"> • Lower drains to floor level or to less than 28 cm (11 in.) high. • Ensure drains are free from clutter. • Place drains in rooms where there is enough room to wheel the mop bucket close to the drain. • Train workers to maintain a symmetrical posture and to avoid stooping and twisting.

A worker who cleans floors by hand uses rapid and repetitive hand movements while kneeling, crouching, or crawling. There is also sustained bending of the upper body and neck.

Tips and improvement ideas

- Place a “Caution: Wet Floor” sign in the area.
- Use knee pads if you have to kneel.
- Select mop heads that do not readily shed loose threads.
- Consider smaller mop heads. They are lighter when wet, and easier to squeeze.
- Adjust the length of telescopic mop handles to the height of your forehead to reduce bending.
- Avoid extreme reaches to the right and left and twisting.
- Avoid excessive bending of wrists.
- Alternate mopping styles. Swing mop in a horizontal figure 8 direction.
- Pad the handle or use a padded mop handle to cushion and improve your grip.



Pad the handle.



Avoid extreme reaches to the right and left.



Stand upright and keep elbows close to your body.



Alternate right and left hands at the top of the mop handle.



Use a mop bucket with separate compartments for clean and dirty water.

- Use microfiber mops if they are appropriate to use. They offer these advantages:
 - Soiled mops are detachable and can be laundered.
 - The mop head pivots and is easier to maneuver.
 - No wringing is required.
 - Floors dry quickly.
 - The mop itself is lighter so mopping is faster.



Use a portable hose with an adapter to fill the mop bucket at almost any sink. It saves trips and time. Be sure not to overfill the bucket.

Typically, janitors bend at the waist and have to push the lever hard to squeeze the mop. This action causes intense contact pressure over the hand and wrist. It also adds strain to the lower back.



Tips and improvement ideas

- Bend your knees and keep your back straight as you push the mop wringer handle down.
- Use a mop bucket raised off the floor to reduce the bending and force needed to wring the water out.
- While squeezing the mop, place your foot in front of the wheel to prevent the bucket from moving.



A wide base adds stability to a tall mop bucket.



Certain types of microfiber mops require much less force to squeeze the mop dry.

Emptying mop buckets involves lifting of heavy buckets, bending at the waist, awkward arm and hand postures, carrying a heavy load, and holding it while dumping the dirty water.



Sinks mounted on the ground instead of waist height allow the worker to avoid heavy lifting.



Use mop buckets with a drain opening.

Tips and improvement ideas

- Use the smallest amount of cleaning solution possible.
- With bent knees, lift the bucket keeping it close to your body. Keep your back straight and do not twist.
- Rest the bucket on the edge of the sink while dumping water.
- If possible, arrange for sinks mounted on the floor at the start of new construction or for a remodel.



Dump water while resting the bucket on the sink.



Bend your knees and keep your back straight while lifting the bucket.