

HOMEBUILDING: DRYWALL

Photocopy this profile and distribute it as widely as possible!

Musculoskeletal disorders (MSDs), such as chronic back pain or shoulder problems, often take time to develop. Forceful exertion, awkward positions, hand-arm and whole-body vibration, contact stress, and repetitive tasks can add up over time to produce an MSD.

This profile can help you identify and control MSD hazards in your job. We recommend that you add the best practices outlined here to your company's health and safety program. The hazards in a particular job, however, may be different than the ones on this profile, so evaluate the risks of your particular activities.

In general, when implementing controls, consider the following ergonomic principles:

- 1. Use handling equipment when possible.** The most effective intervention to control the risk of developing an MSD is to eliminate or reduce the frequency of lifting, carrying, pushing, and pulling. Use material-handling equipment such as carts, dollies, pallet jacks, or manual forklifts.
- 2. Don't lift a load from the floor.** Lifting from the floor or below standing knuckle height can expose your back to significant stresses and reduce your lifting capacity. Avoid this procedure by storing objects above standing knuckle height and below standing shoulder height.
- 3. Avoid working on the floor.** Constantly working on the floor can result in injuries to your back, hips, and knees because it usually requires kneeling and bending your back forward. When possible, raise the work height by using a workbench.
- 4. Minimize work above your shoulder.** High lifting or constant reaching above the shoulder level is harmful for three reasons.
 1. Your muscle strength is reduced because most of the muscle work is performed by your shoulders and arms instead of by the bigger muscles in your back and legs.
 2. Your shoulder and arm muscles fatigue more quickly than your back and leg muscles because of reduced blood flow.
 3. Lifting or removing an object from a high shelf can be dangerous because you could drop the object.
- 5. Move smaller weights often or get help.** Smaller weights put less stress on your back than larger weights, even if the frequency of lifting is increased.
- 6. Exercise programs.** Consider exercise programs. They help to prevent MSDs and promote general good health.

Tasks	What can happen (Hazards/Risks)	Potential Controls
<p>Material handling drywall sheets</p> <ul style="list-style-type: none"> ▶ Moving drywall and accessories to the installation area 	<ul style="list-style-type: none"> ▶ Back and shoulder injury from repeated handling of heavy drywall sheets 	<ul style="list-style-type: none"> ▶ Use material handling devices such as carts, dollies, and boom trucks. ▶ If possible, store drywall near the installation area (e.g., on the same floor as the installation). ▶ If possible, use a tool that can safely grip the drywall and allow you to carry the gypsum board easily with one hand. ▶ Move one sheet at a time. ▶ Get help moving sheets.
<p>Installing drywall sheets</p> <ul style="list-style-type: none"> ▶ Placing/hanging drywall onto ceilings and vertical walls 	<ul style="list-style-type: none"> ▶ Back and shoulder injury from repeated handling of heavy drywall sheets ▶ Wrist, hand, and elbow injury from repetitive hammering and using a “pinch grip” when handling drywall sheets 	<ul style="list-style-type: none"> ▶ You need two people to lift long sheets of drywall. ▶ If possible, for situations when you’re working alone or working on a tall ceiling (greater than 8 ft or 2.4 m), use a pneumatic or manual panel lift for overhead work. ▶ Use scaffolding when installing drywall on walls two-storeys high. To help you move the drywall onto the scaffold, use a tool that can safely grip the drywall and allow you to carry the gypsum board easily with one hand. ▶ When screwing drywall board onto ceilings, use an auto-feeding screw gun with a handle extension. Automatic-loading screw guns can help workers maintain balance while installing ceilings. The guns also reduce cuts from repeated handling of screws. Screw guns with extension arms can reduce the need to work from ladders, scaffolds, or benches, so they help prevent slips and falls. ▶ Ensure that knives and other tools are sharp and in good shape. When cutting drywall board, wear gloves to prevent cuts to your fingers and palm. ▶ Use ergonomically designed knives to reduce hand and wrist exertion. ▶ Take a five-minute break for each hour of work. Stretch your back and neck. ▶ Consider using a box with a handle to carry screws when installing drywall sheets. ▶ Pick up garbage and scrap materials as you go. Distribute garbage bins around your site and empty them regularly. Good housekeeping prevents slips, falls, and overexertion injuries.

Tasks	What can happen (Hazards/Risks)	Potential Controls
<p>Finishing: taping, applying compound, and sanding</p> <ul style="list-style-type: none"> ▶ Placing/hanging drywall onto ceilings and vertical walls 	<ul style="list-style-type: none"> ▶ Overexertion injuries from prolonged and awkward shoulder, neck, and back positions 	<ul style="list-style-type: none"> ▶ When carrying drywall compound and taping materials, put a rubber or cloth pad under the shoulder strap to reduce contact stress. ▶ Consider using a taping tool. It lets you apply tape and joint compound from the floor. It reduces the risk of slips and falls from ladders, scaffolds, and work benches. ▶ Use a lightweight drywall trowel with a good grip design. ▶ Use mechanical devices (mud box or pneumatic tools) to apply finishing compound. ▶ Using tools with longer handles will give you access to ceilings and other hard-to-reach spots without having to use a bench or scaffold. ▶ To reduce stress on your back, arms, and wrists during drywall sanding, change your hand position and stretch frequently. ▶ Use a mechanical drywall sanding machine with vacuum attachment. ▶ Take a five-minute break during each hour of work. Stretch your back and neck.

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