

PAINTERS AND DECORATORS TRADE

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 from the ones on this profile, so evaluate the risks of your specific work activities.

When putting MSD controls in place, consider the following ergonomic principles:

1. **Use handling equipment when possible.** The best way to prevent 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 lift trucks.
2. **Don't lift a load from the floor.** Lifting from the floor or from below standing knuckle height can put severe stress on your back and reduce your lifting capacity. To avoid this, store objects above standing knuckle level and below standing shoulder level.
3. **Avoid working on the floor.** Constantly working on the floor can result in injuries to your back, hips, and knees because you usually have to kneel and bend forward. When possible, raise the work height by using a workbench.
4. **Use proper lifting techniques.** Lift materials with your legs, do not bend over or lift with your back, and keep the load close to your body. See the "Back Care" chapter in IHSA's *Construction Health and Safety Manual* (M029) for more information.
5. **Minimize work above your shoulder.** High lifting or constantly reaching above your shoulders can be harmful. Most of the work is being done by the smaller muscles in your shoulders and arms instead of by the larger muscles in your back and legs. When your arms are raised, the muscles fatigue more quickly because there is less blood flow and there is a greater chance you could drop the object.
6. **Get help with large loads or split them into smaller loads.** Get help from a co-worker if a load is too heavy to handle on your own. If possible, split the load into smaller loads. Making more trips with small loads puts less stress on your back than making fewer trips with large loads.
7. **Practise good housekeeping.** Pick up debris and garbage to prevent trips, slips, and falls. Keep pathways clear for carts, wheelbarrows, and dollies to reduce forceful exertion. A clean worksite also allows you to get closer to your work and equipment.
8. **Conduct a Job Safety Analysis (JSA).** Actively assess the job tasks and implement MSD controls before starting work to avoid overexertion and awkward positions.
9. **Perform stretching and warm-up exercises before starting work.** This can prevent MSDs and promote general good health. Use IHSA's *Before You Start Work Exercises Card* (V012).

Photocopy this profile and distribute it as widely as possible!

Scope of Work for Painters and Decorators

Painters and decorators apply decorative and protective finishes in residential and ICI (industrial, commercial, institutional) settings. They prepare a variety of surfaces (e.g., wood, masonry, drywall, plaster, concrete, synthetics, stucco, and metal) before the application of materials such as paint, high-performance coatings, waterproofing, fireproofing, varnish, shellac, wall coverings, and specialty finishes.

Activity/Task	Hazards/Risks	Potential Controls
<p>Material handling</p> <p>Handling material and equipment such as:</p> <ul style="list-style-type: none"> • Paint (1 to 5-gal pails, 50-gal drums) • Job boxes • Ladders • Scaffolding • Piping • Power tools • Sandblasting equipment • Spraying equipment 	<ul style="list-style-type: none"> • Overexertion injuries from lifting and carrying heavy equipment or work materials • Stress on the knees, shoulders, and arms from kneeling, carrying large objects, and working with hand tools 	<ul style="list-style-type: none"> • Plan ahead to minimize material handling tasks. • Get help from a co-worker if a load is too much for you to handle on your own. Consider not only the weight of the item but also the lifting location, your body position, and ergonomic principles. • Use portable mechanical lifting equipment whenever you can, especially when loading or unloading heavy materials. This may include a light mobile overhead crane or a powered buggy. • Familiarize yourself with the many types of hoists, balancers, and attachments that are available to help lift objects. Always ensure that the equipment is capable of handling the weight of your load. • Handling equipment (hand trucks, carts, etc.) is available in many shapes and sizes and some can be customized for special applications. Talk to your purchasing department or supervisor about getting the correct one for your needs. • Use a lift truck or crane to transport large quantities of materials such as paint buckets, cables, hoses, blasting and spraying equipment, and rigging equipment at one time. This will reduce material handling tasks and improve efficiency. • Whenever possible, use an overhead crane to lift and transport heavy items (e.g., install a small-sized crane on a pickup or flatbed truck to help with lifting/lowering heavy objects). Ensure that the system/lifting device is rated for the weight of the load you are going to transport. Also consider movement patterns before installing a crane. • Use dollies and motorized pallet jacks whenever possible, especially when moving material frequently or over long distances. • Store equipment and materials above ground level. The optimal lifting height is between chest level and knee level.

MSD Hazards and Controls

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Activity/Task	Hazards/Risks	Potential Controls
		<ul style="list-style-type: none"> • When using carts or hand trucks: <ul style="list-style-type: none"> - Select a model that has the correct type of wheels for the ground conditions. - Select a model with swivel wheels on the rear and fixed wheels on the front so it will be easier to push over long distances. - Keep the wheels on handling equipment in good condition to reduce the amount of force needed for pushing or pulling. - Make sure handles are located at the rear of the cart and at waist level. - Make sure the height of the load on the cart does not block your view. - Keep loads balanced and under the manufacturers' recommended weight limits. - Push a cart instead of pulling it. Pulling causes more bone-on-bone compression in the lower back. • Attach a pulley system to tools or equipment. This will reduce the amount of force needed to lift, position, or operate them. • Set up a shelving system that can store materials, tools, or equipment within easy reach and allow you to lift or move objects without having to bend or twist. If using a rack system, store items between knee and shoulder height whenever possible. • Use a ramp made of either aluminum or wood when moving materials upstairs or over uneven walkways. • Work in a comfortable position. Use existing equipment to create a stable workbench that allows you to work while standing upright with your arms close to your sides. • Store heavy materials closer to the work location to reduce the distance you have to carry them. • Move as close as possible to the work area and centre yourself to reduce overreaching and bending at the waist. • Use a three-point lift method when handling heavy objects or long material by yourself: <ol style="list-style-type: none"> 1. Squat and lift one end of the object. 2. Walk up the load. 3. Lift the object from the ground

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<p>Preparing surfaces (e.g., substrates, wood, concrete block, steel, metals, drywall) while working in vertical, horizontal, and overhead positions</p> <ul style="list-style-type: none"> • Cleaning surfaces, which may include degreasing, washing, and blowdown • Cleaning non-powered hand tools using scrapers, brushes, sandpaper, and wire brushes • Cleaning power tools (e.g., grinders, chippers, needle guns, bristle blasters, scabblers, floor maintainers, power sanders, and shrouded (i.e., dust-control) equipment) • Using cleaning methods such as dry abrasive blasting, high-pressure water blasting, and vacuuming 	<ul style="list-style-type: none"> • Arm, hand, and finger injuries (e.g., hand-arm vibration syndrome and carpal tunnel syndrome) from vibrations and repetitive forceful exertion while using hand/power tools • Working in awkward body positions such as squatting, kneeling, and stooping • Stress on the knees, shoulders, and arms from kneeling, carrying large objects, and working with hand tools • Overexertion injuries from <ul style="list-style-type: none"> - lifting and carrying - pushing/pulling carts with heavy materials - transporting heavy equipment - handling ladders 	<ul style="list-style-type: none"> • Work in a comfortable position. Use existing equipment to create a stable workbench that allows you to work while standing upright with your arms close to your sides. • Use hand tools that have: <ul style="list-style-type: none"> - Low vibration and weight - A comfortable handle that provides a good grip (e.g., a rubber or spongy-type grip) - A grip that is the correct size and is designed to be used by either hand (e.g., a power grip for heavy work and a pinch grip for fine work) - A handle that lets you keep your wrist straight or in a neutral position when operating it - A torque reduction and/or low kickback features • Move as close as possible to the work area and centre yourself to reduce overreaching and bending at the waist. • Keep cutting tools sharp to reduce the force required to use them. If you do a lot of cutting, use a powered cutting tool (e.g., power saw). • Use a shoulder pad when carrying heavy objects. It will reduce the strain on your shoulder by spreading the weight over a larger area. • Rotate to other tasks when possible to give your muscles a break from repetitive movements. • If working overhead, consider using a tool with an extended arm or handle to reduce stress on the arms and shoulders. • Wear anti-vibration gloves to reduce the vibration from powered tools going to your hands and arms. • If available, use a scissor lift or other work platform. • Whenever possible, use lightweight tools, power tools, or tools that require less force. • Select the right tool for the job and choose one that fit your hand comfortably. • Let your supervisor know if you need training on a new tool or process. • Use elbow pads to prevent contact stress, especially when working in cramped spaces or having to lean on elbows. Elbow pads should fit snugly without affecting the circulation in arms.

MSD Hazards and Controls Painters and Decorators Trade

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<p>Painting and coating surfaces (e.g., substrates, wood, concrete block, steel, metals, drywall) while working in vertical, horizontal, and overhead positions</p> <ul style="list-style-type: none"> Applying paints and coatings, which may include preparing/mixing, brushing, rolling, spraying, squeegeeing, metalizing, and troweling (on epoxy coatings) Preparing walls for coverings, which may include removing old wall covering and adhesive, laying out wall surface, and preparing/treating wall covering and surface Applying wall coverings, which may include applying adhesive and installing commercial vinyl, residential, rigid, and fabric/natural material wall coverings 	<ul style="list-style-type: none"> Overexertion injuries from lifting heavy equipment or materials Overexertion injuries of the shoulder and back from lifting and carrying ladders, scaffolds, and other work materials Working in awkward body positions such as holding a bent-neck position or keeping shoulders raised for a long periods of time Hand and wrist injuries (e.g., carpal tunnel syndrome) from repetitive movements 	<ul style="list-style-type: none"> Whenever possible, set up a scaffold, scissor lift, or power elevated work platform. This will allow you to work at optimal height and reduce stress on the neck and upper arms from working in an awkward body positions. Do not work from a ladder unless it's not possible or practical to use a work platform. Properly place items to be coated so that you're working in a comfortable body position (e.g., block items to be coated up off ground). Change work positions, take stretch breaks, and rotate to other tasks when possible to give your muscles a break from repetitive movements and awkward positions. Move as close as possible to the work area and centre yourself to reduce overreaching and bending at the waist. If working overhead, consider using a tool with an extended arm or handle to reduce stress on the arms and shoulders. Select the right tool for the job and choose one that fit your hand comfortably. Wear anti-vibration gloves to reduce the vibration from powered tools going to your hands and arms. Whenever possible, use lightweight tools, power tools, or tools that require less force. Consider buying paint applicators that have ergonomic handles, which will allow the forearm, wrist, and hand to maintain a more neutral position while painting. When painting pipes, cylinders or columns, consider using a pipe painter roller frame. It is designed to paint contoured surfaces and has a handle that can be adjusted for varying angles. Place paint buckets onto a bucket dolly/cart that allows workers to more easily roll buckets and their contents to the work area.

Don't forget about other hazards at your workplace. For more information, visit ihsa.ca

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