

PRESENTER'S GUIDE

"MATERIALS HANDLING SAFETY"

Part of the General Safety Series

OUTLINE OF MAJOR PROGRAM POINTS

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The following outline summarizes the major points of information presented in the program. The outline can be used to review the program before conducting a classroom session, as well as in preparing to lead a class discussion about the program.

- **A busy day in the warehouse means "materials in motion".**
 - Objects of all shapes and sizes are being loaded, unloaded, stacked, stored, moved... and moved again.
- **"Materials handling" is how the things that people need get to where they're needed, on time and intact.**
 - It's what keeps business and industry going strong.
- **But these activities can be dangerous.**
 - Thousands of workers are killed and injured performing materials handling tasks every year.
 - Many of those accidents and injuries could have been prevented.
- **Materials handling basically requires you to move something from Point A to Point B.**
 - But as the workplace gets busier it can be easy to forget that the job has to be done safely.
- **You can help prevent accidents and injuries, even before you start your shift, by asking yourself... "Am I ready to work safely?"**
- **You're not ready if you're under the influence of drugs or alcohol.**
 - Anything that might affect your balance or your judgement could get you or someone else injured or killed.
- **You're also not ready to work safely if you're hurting from a recent injury.**
 - An injured body is a weaker body, and it's an accident waiting to happen.

- **You need to make sure that you're dressed to work safely as well.**
 - Putting on appropriate personal protective equipment is easy, and it's an effective way to avoid injuries.
 - At a minimum, you should wear gloves and work boots with non-slip soles and steel toes.
- **Other types of PPE might also be required, depending on the tasks you perform.**
 - Ask your supervisor what you should wear for the best protection.
- **Make a habit of looking for warning labels on anything that you're going to move.**
 - They advise you about any special handling requirements or hazards you should be aware of.
- **Another good rule of thumb is to "plan before you move".**
 - It can help you avoid having to "think on your feet" while you're actually lifting or carrying something.
- **Know your destination and how you're going to get there.**
 - Walk the route and eliminate "surprises" ahead of time.
 - Remove any clutter from your path.
 - Watch out for puddles or spills.
 - If you can't remove an obstruction, change your route to avoid it.
- **Materials handling tasks can be physically demanding.**
 - To avoid hurting yourself, you need to understand your body's capabilities and limitations.
- **"Ergonomics" looks at how you can get a job done easily and efficiently, without injury.**
 - When you ask your body to move in ways it's not designed to, the strain can cause serious damage.

- **Avoid working with your body in "unnatural or extreme positions" such as:**
 - Leaning to the side while pushing a box onto a stack.
 - Turning at the waist and reaching back to grab a heavy tool.
 - Bending forward to lift something.
- **Anytime you feel like you're forcing yourself into a stressful position, stop.**
- **Then think about how you can get the task done without straining yourself. For instance, you could:**
 - Shift your position so you can push a box without leaning.
 - Move your feet so you can grab a tool without turning.
 - Slide an object toward you before you lift it.
- **You should always be careful of "overexertion" as well.**
 - Trying to do too much is another way you can hurt yourself.
- **Whether you're pulling or pushing, lifting or working with tools, the more force you have to use, the easier it is for things to get out of control.**
 - It can happen when you try to lift something that's too heavy for you, or force a tool to do a job it's not designed for.
- **If you feel yourself straining, stop and rethink what you're doing.**
 - You have access to tools, equipment and coworkers who can help you get the job done without having to pretend that you're Hercules.
- **"Repetitive motion" is another dangerous type of movement.**
 - An employee who works at a conveyor belt might make the same lifting, turning, stepping and lowering motions hundreds of times a day.
 - The human body wasn't meant to take that kind of stress.

- **Even small repetitive motions can cause damage, such as "carpal tunnel syndrome" in people who use computers.**
- **You can avoid this by alternating tasks that use different types of movements.**
 - Talk to your supervisor to find out more.
- **Every year more than a million workers injure their backs, and it usually happens because they are trying to lift something the wrong way.**
- **Materials handling involves a lot of lifting, so to avoid accidents and injuries you need to know and follow safe lifting procedures.**
 - The first one comes into play before you actually lift anything.
 - It's "think before you lift".
- **When you have an object to move... should you lift and carry it yourself? Stop and ask:**
 - Is it too heavy for you to lift easily?
 - Is it too bulky or oddly shaped to grip securely?
 - Will it be too large to see over after you pick it up?
- **If you answer "yes" to any of these questions, you shouldn't try to lift the object by yourself.**
- **But even when the answers are all "no", there are specific steps you should take to make the lift:**
 - Stand close to the object with your feet about shoulders' width apart.
 - Lower yourself to grasp the object by bending your knees.
- **Do not bend at the waist! Keep your back straight.**
 - Get a firm grip.
 - Hold the object close to your body.
 - Lift the load with your leg muscles, by straightening your knees.
- **It's especially important to keep your back straight when you lift.**
 - This prevents putting too much strain on your spine.

- **Once you've lifted an object correctly, it's time to carry it to its destination.**
 - Keep your back straight, holding the load close to you.
 - Proceed carefully, with your head up and your eyes "on the road"

- **Remember, twisting is bad ergonomics.**
 - If you have to change direction while you're carrying something, don't twist at the waist.
 - "Walk through" the turn instead, by moving your feet.

- **When it's time to put the load down, do what you did when you lifted it, but in reverse.**
 - Keep your back straight.
 - Bend at the knees.
 - Use your leg muscles.

- **If an object is too heavy to carry alone, one option is to ask a coworker to help you with it.**
 - Performing a safe "team lift" uses the same ergonomic principles that we just discussed, plus teamwork.

- **To maintain control of the load, you and your helper need to coordinate your actions.**
 - The best way is to agree beforehand which of you will "call the shots", so that you lift, carry and unload together.

- **Whether you're lifting by yourself or with someone else, lifting an object over your head will put a severe strain on your neck and shoulders.**
 - To lift safely, you should use a step-stool, ladder or platform to raise yourself first.
 - That way you won't have to lift the object any higher than your chest.

- **Materials handling would take a lot more time and effort if you had to carry everything yourself.**
 - Fortunately, there are several types of materials handling tools and equipment that can help you move things a lot more easily, and safely.

- **These "lifting and carrying aids" include:**
 - Two-wheel "hand trucks" and "dollies".
 - Platform trucks and pallet jacks.
 - Heavy, powered equipment such as forklifts.
- **But even with this equipment's help you still need to follow safe work practices while you're using it.**
- **Begin by thoroughly inspecting the equipment before each use.**
 - Look for damage and worn or missing parts.
 - For powered equipment, use the inspection checklist provided by the manufacturer or your employer.
- **If you find problems and can't repair them, take the equipment out of service and report it to your supervisor.**
 - Never use damaged equipment.
- **Two-wheeled hand trucks and dollies work on the "lever and fulcrum" principle.**
 - They give you good lifting power and control but you need to pay careful attention to how you load them.
- **To prevent materials from falling off and being damaged or causing injuries:**
 - Position the load tight against the back of the truck.
 - Stack smaller, lighter objects on top of larger, heavier ones.
 - Don't stack things any higher than the truck's backrest.
- **Even with a dolly, you can hurt yourself trying to move too much weight, so don't overload it.**
- **Watch out for oddly shaped or unbalanced objects that could destabilize the load too.**
 - Some equipment comes with straps to keep things secure.
 - If yours has them, use them.

- **Maintaining control of a loaded dolly or hand truck can be challenging. To tip one back safely:**
 - Stand behind the truck.
 - Hold the top of the load with one hand.
 - Rest one foot on the axle.
 - Use your other hand to gently tilt the truck back.
 - Balance the weight of the load over the wheels.
- **To move off, grip the truck's hand-holds firmly with both hands, and push.**
 - Pulling a hand truck or dolly is bad ergonomics, and stresses both your arms and shoulders.
- **When you arrive at your destination, you can make a "controlled landing" the same way you did when you tipped it back.**
- **A four-wheeled cart or platform truck will give you better control when moving loads that are too big or heavy for two-wheeled equipment.**
 - You still have to pay attention to how you load them.
- **To be secure, a load must be stable and self-supporting, with its weight evenly distributed.**
 - When possible, stack items so that they interlock.
 - You can also "wrap" the materials so they won't come loose when you move off.
- **Just like two-wheeled dollies, you should move four-wheeled equipment by pushing from behind.**
- **Use caution while the cart is in motion.**
 - It's large and heavily loaded, so it will be hard to stop.
 - Be careful to avoid pedestrians as well as other equipment and materials.
- **Park carts and trucks in their designated storage areas when you're done.**
 - Leaving equipment where people don't expect it can cause accidents and injuries.

- **When materials are stacked on pallets, you can use a "pallet jack" or "truck" to move them, but you'll want to keep a couple of things in mind when you do.**
 - First, make sure the wheels are resting on the ground before you raise the forks.
 - If the wheels are resting on one of the pallet's slats, trying to raise it will tear the pallet apart!
- **Pallet jacks can also be an exception to the "push loaded equipment from behind" rule.**
 - The wheels that steer the pallet jack are located at the rear.
 - This can make it tricky to control the equipment when you push it.
- **To avoid running into things or people, it can be easier to pull a loaded pallet jack.**
 - But you will need to push the truck (carefully) when you're putting the load in its final location.
 - Then lower the forks and pull the jack out from under the pallet.
- **Some loads are so heavy and bulky that you'll need a forklift to move them.**
- **Forklifts are powerful and versatile machines, but they can also be dangerous.**
 - Following safe work practices will go a long way toward preventing accidents and injuries, for both drivers and pedestrians.
- **When you're operating a forklift, pay attention to the basics:**
 - Always wear your seatbelt.
 - Once you're moving, keep your hands inside the vehicle.
 - Maintain a safe speed.
 - Drive to the right of traffic and pedestrians.
- **Pick up your load by pushing the forks all the way into the pallet.**

- **Drive with your forks low, four to six inches above the floor.**
 - Remember that any load can make a forklift unstable, so tilt the mast back and keep your speed down.
- **Make sure you can always see clearly in the direction you're going.**
 - If the load you're carrying obstructs the view going forward, operate the truck in reverse, looking over your shoulder.
- **Always watch for pedestrians.**
 - Make sure they know you're coming.
 - Stop and sound your horn when approaching corners, intersections or doorways.
 - Always give them the right of way.
- **If your forklift ever begins to tip over, do not try to jump out of the truck.**
 - Studies show this can get you killed.
- **Instead you should:**
 - Brace your feet.
 - Pull yourself tight against the steering wheel.
 - Lean in the opposite direction from the way the vehicle is tipping.
 - Hang on.
- **When you're a "pedestrian" working near where forklifts are operating, be aware of where they are and keep a safe distance.**
- **Don't "pop up" where the driver doesn't expect you.**
 - Use designated walkways whenever possible.
 - Keep to the right when you're walking in aisles.
- **In a busy facility, forklifts can be hard to see and hear.**
 - Stop, look and listen for them, especially near blind corners and intersections.
 - These areas can be hazardous in your facility just like they are on city streets.

- **Because forklifts steer with their back wheels, they turn very sharply and their back ends swing out.**
 - Don't let this take you by surprise.
- **Other things to remember include:**
 - Always stay away from a forklift's forks.
 - Don't get caught between a forklift and a wall.
 - Never work, stand or walk under a raised load.
- **The bottom line with forklifts is, to stay safe, stay clear of them.**

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- **You should prepare to work safely by avoiding drugs and alcohol, wearing appropriate PPE and "planning before you move".**
- **Don't put your body in unnatural or extreme positions, and avoid overexertion and repetitive motions.**
- **Think before you lift. Keep your back straight, bend at the knees and lift with your legs.**
- **Always inspect equipment before you use it, and don't use it if it is damaged.**
- **If you operate a forklift, drive slowly and be aware of pedestrians.**
- **Do not try to jump out of a forklift that is tipping over.**
- **If you work near where forklifts operate, know where they are and keep your distance.**
- **Now that you understand the hazards that you can encounter when you're handling materials, and know what you need to do to avoid accidents and injuries, you can help yourself and your coworkers go home safe at the end of every workday!**