WELCOME – STEP 1

1. Welcome to the August Safety Toolkit – Ergonomics. You play an important role in the health and safety across the company, and we thank you for your contribution! Without your focus and dedication to making safety a priority, our people would suffer, our clients would suffer, and our families would suffer. We hope you find the safety tools provided in this Toolkit and in Toolkits like this in the coming months as just some of the many resources afforded to you to communicate Ergonomics. As always, the work you do matters, and we are so grateful to have you on the team!

HOW TO USE THIS SAFETY TOOLKIT

1. Supervisor/Lead Script – Start Here! Way to go! Now keep reading and you'll be all set. This script sets you up for success.
2. Supervisor/Lead PowerPoint – Use this as a training moment for your team. Everything you need to know and communicate for each slide is contained in this script! Skip ahead if you are ready to give this training to your team. It's always a good time to learn about Ergonomics. The presentation should last about 45 minutes depending on group participation.
3. Teaching Tool – We have included an Ergonomics Quiz and Answer Key to test your knowledge.
4. Site Communication Poster – A PDF version of the monthly infographic if you would like to display it at your workplace.
5. Sign-In Sheets – Please complete this form when completing Ergonomics training and turn in to the appropriate point of contact as a record of training.
6. What's next? – Use this QR code for yourself AND share it amongst everyone on your team for additional safety resources based on the theme of Ergonomics. Look for Interactive resources, recommendations for phone apps, checklists, handouts, and more. Check it out!

SUPERVISOR/LEAD POWERPOINT SCRIPT – STEP 2

NOTES ON THESE SLIDES:

- KLP: Key Learning Point (objective of the slide)
- F: Facilitator

Slide 1: Title Page (30 Seconds)

KLP: You set the tone. If you believe safety is important, the audience will believe safety is important.

The facilitator opens the session by welcoming everybody to the training and noting the monthly focus – Ergonomics.

F: Today's task is to attend training on Ergonomics. Cell phones should be turned off or silenced during this training. If you need to take a call, please go to (designated area), take the call, and return as soon as possible. {Address any other important announcements or business now.}

Slide 2: Housekeeping (1 Minutes)

KLP: Opportunity for a HSE (Health Safety and Environmental) Moment

F: Prior to training, determine if any fire drills are planned and the response expected from the facility and muster points if alarms should go off. It is important to remind employees that should they need to leave the location at any time, they should inform the Facilitator because, in the event of a fire incident, we need to know their whereabouts. This is an opportunity right at the start of the day to brief the employees on HSE procedures in general for the running of the training course. [If your job site is outdoors, do not overlook this safety moment. Adjust the plan in the event of a job site fire.]

F: Hello Team, I have verified with the HSE department and have confirmed that there are no Fire Drills or Emergency Drills scheduled for today. If we hear an alarm, we will follow site protocol for emergency response.

F: {Point out the fire exits and muster point}

F: Once we are at the muster points, we will do a role call to account for all attendees.

Slide 3: Presenter (2 Minutes) & Introductions (5 Minutes)

F: {This is your moment! This is a chance to visibly "Walk the Talk"}

Share:

- Your personal experience of safety and impact on the company
- Importance of making the most of this opportunity to think about the importance of HSE and discuss with employees.
- Appreciate that you are a leader and that you make an impact.
- Importance of taking personal responsibility to make a positive impact.
- You get out of this training what you put into it.
- HSE matters to our company.
- The safety program is going to help people feel empowered and take the initiative to improve their own HSE performance through proactive attitudes and behaviors.

You may wish to share:

- A story of your experience in the safety program and how it has changed the way in which you behave.
- Some lessons learned from an incident when you have been involved in the investigation, highlighting the devastating impact that accidents have on people's lives, or you can describe your experience of being involved in an environmental incident. How did this affect the company, and more importantly, affect the lives of others not working for the company.

F: Go around the room and ask everyone to give their name and what their position is. {Wait for their responses, smile, and nod as they participate. Be careful about timing here---if you ask an additional intro question of the participants and give a long-winded answer yourself, your participants will follow with long stories/explanations, and you can accidentally take up a lot of time.}

Slide 4: Why am I here? (1 Minute)

F: Each one of us is the last line of defense to protect workers from injury or the environment from damage, should management systems and collective protections fail. Supervisors and workers are the KEY to HSE. We can promote or destroy the HSE climate through our own behavior and how other workers perceive it.

F: Supervisors and workers are responsible for enforcing safety rules. Regardless of our position, employment status, or background, everyone is responsible for HSE, and everyone can be a HSE leader by demonstrating positive attitudes and behavior.

Slide 5: Ergonomics (2 Minutes)

F: Ergonomics is the scientific discipline concerned with understanding of interactions among humans and other elements of a system, and the profession that applies theory, principles, methods and data to design in order to optimize human well-being and overall system performance.

F: The goal of ergonomics is to find ways to make strenuous, often repetitive work, less likely to cause muscle and joint injuries and still get the job done. This can be accomplished with the idea of fitting the job to the person rather than making the person fit the job.

F: A good rule of thumb is if it hurts when you are doing something, you shouldn't do it.

Slide 6: Musculoskeletal Disorders (2 Minutes)

F: Musculoskeletal Disorders (MSDs) affect the soft tissues of the body - the muscles, tendons that connect muscles to bones, ligaments that connect bone to bone, nerves, blood vessels, pretty much every part of your body that's not a bone or internal organ.

F: These are the parts of your body that are prone to injury when demands on them go beyond what they can handle. Typically, these injuries occur in your body's joints, the moving parts of the body like your low back, wrist, shoulder, elbow and knee. These are the parts of your body that get used the most and that are placed under the most stress during the day.

F: Often these injuries start out small, as a little muscle pull or a slightly irritated tendon. However, if a small injury isn't given a chance to heal, it can become aggravated, especially if you keep doing the activity that caused the injury in the first place. Over time, these small injuries can build until they become chronic, and at this point they become a MSD.

F: Workers in many different industries and occupations can be exposed to risk factors at work, such as lifting heavy items, bending, reaching overhead, pushing and pulling heavy loads, working in awkward body postures and performing the same or similar tasks repetitively. Exposure to these known risk factors for MSDs increases a worker's risk of injury.

Slide 7: Musculoskeletal Disorders Cont. (1 Minute)

F: Some common Work-Related MSDs are:

- Tennis Elbow
- Sciatica
- Herniated Discs

- Neck strain/disability
- Tendinitis
- Rotator Cuff
- Reynaud's Syndrome
- Trigger Finger
- Back strain/disability

F: Some of the symptoms associated with MSDs are:

- Pain
- Numbness
- Loss of motion/flexibility
- Stiff joints
- Swelling
- Tingling
- Inflammation
- Throbbing
- Paralysis

Slide 8: Ergonomics in the Workplace – VIDEO (4:19 Minutes)

VIDEO – 4:19 Min

(Click play to play clip)

Slide 9: Causes of Musculoskeletal Disorders (3 Minutes)

F: The risk of MSD injury depends on work positions and postures, how often the task is performed, the level of required effort and how long the task lasts.

F: Risk factors that may lead to the development of MSDs include:

- Exerting excessive force. Examples include lifting heavy objects or people, pushing or pulling heavy loads, manually pouring materials, or maintaining control of equipment or tools.
- Performing the same or similar tasks repetitively. Performing the same motion or series of motions continually or frequently for an extended period of time.
- Working in awkward postures or being in the same posture for long periods of time. Using positions that place stress on the body, such as prolonged or repetitive reaching

above shoulder height, kneeling, squatting, leaning over a counter, using a knife with wrists bent, or twisting the torso while lifting.
- Localized pressure into the body part. Pressing the body or part of the body (such as the hand) against hard or sharp edges or using the hand as a hammer.
- Cold temperatures. In combination with any one of the above risk factors may also increase the potential for MSDs to develop. For example, many of the operations in meatpacking and poultry processing occur with a chilled product or in a cold environment.
- Vibration. Both whole body and hand-arm, can cause a number of health effects.
- Combined exposure to several risk factors may place workers at a higher risk for MSDs than exposure to any one risk factor.

Slide 10: Neutral Posture (2 Minutes)

F: As previously mentioned, working in awkward postures is one of the leading causes of MSDs. To understand what an awkward posture is, it helps to understand what it isn't. A good posture is one that places the least amount of stress on your joints and muscles. This is referred to as neutral posture. It takes the strain out of your muscles and joints and allows them to work more efficiently.

F: This is what standing neutral posture looks like:

- Keep all the parts of your body aligned - ears directly over shoulders, shoulders over hips, hips over knees, knees over ankles.
- Look straight ahead with your head level, not twisted or bent.
- Relax your shoulders; don't hunch them or rotate them forward. Let your upper arms and elbows hand comfortably at your sides.
- Keep your wrists straight and in a handshake position.
- Stand with your legs straight, but with our knees relaxed, not locked back.

F: Seated neutral posture is pretty much the same, except:

- Support your low back using the chair's backrest.
- Support your feet by placing them flat on the floor or on a footrest, with your knees slightly lower than your hips.

Slide 11: Awkward Posture (30 Seconds)

F: Work puts you into awkward postures when:

- it's either too low, requiring you to bend down or over

- or too far away or high, requiring repetitive reaching.

Slide 12: Vibration (3 Minutes)

F: Vibration was also mentioned as one of the most common causes of MSDs. Hand-arm vibration can damage to the nerves and blood vessels in your hands and arms. Hand-arm vibration may cause a worker to lose feeling in the hands and arms resulting in increased force exertion to control hand-powered tools (e.g. hammer drills, portable grinders, chainsaws) in much the same way gloves limit feeling in the hands. The effects of vibration can damage the body and greatly increase the force which must be exerted for a task.

F: Vibration also tends to make the muscles tighten up. The tighter you grip the tool, the more vibration gets transmitted to your hands and arms, and this makes injury more likely. Some tools put out a high level of vibration, and this can start to have these effects on your body in as little as half an hour of use per day.

F: It takes quite a bit of vibration to actually cause an injury, but if you use a lot of power tools you should take all of the steps you can to reduce your exposure to vibration. These include:

- Use low vibration tools if available.
- Maintain tools to reduce vibration. Well maintained tools can often get the job done quicker, too. This reduces your exposure to vibration.
- Use anti-vibration gloves or tool wraps.
- Keep your hands warm to help keep good blood flow and feeling to your hands.

Slide 13: Hand Intensive Work – Repetitive Motion (2 Minutes)

F: Different types of intense work with hands leads to several MDSs.

F: Making the same motion repeatedly can cause a lot of wear and tear on the joints being used, and if you don't rest to allow time for them to heal, the damage can just keep building up. Motions are considered highly repetitive when you use the same part of your body to make an identical motion over and over again without pauses. Most repetitive motions involve the hand, wrist, arm and shoulder, but there are also repetitive motions of the neck and back.

F: Things you can do to reduce repetitive motions include:

- Arrange work to avoid unnecessary motions
- Let power tools and machinery do the work
- Spread repetitive work out during the day
- Take stretch pauses
- Rotate tasks with co-workers if possible

- Change hands or motions frequently

Slide 14: Hand Intensive Work – Gripping and Pinching (1 Minute)

F: The amount of force required to grip something depends on a number of factors; one of the most important of these is how you grip it. Gripping something with the whole hand, called a power grip, is up to 5 times stronger than gripping something with the fingertips, known as a pinch grip. So, picking up something that weighs 2 pounds with a pinch grip is just as stressful as picking up 10 pounds with a power grip.

Slide 15: Hand Intensive Work – Bent Wrists (1 Minute)

F: Bending your wrists decreases your grip strength and makes wrist and elbow injuries more likely. Consider using tools that let you keep your wrist straight.

F: When risk factors combine, they are more likely to cause injury. For example, when you combine high hand force with bent wrists, an awkward posture, you're more likely to have a wrist injury.

Slide 16: Controlling Musculoskeletal Disorder Hazards (3 Minutes)

F: The first step in controlling MSDs is trying to eliminate the hazard all together to make sure that the hazard no longer exists. If the task cannot be eliminated, look for ways, if that, that the task can be substituted with another task that is less hazardous.

F: Where the hazard cannot be eliminated or substituted, implementing engineering controls to reduce employee exposure to hazards and preventing hazards from coming into contact with workers would be the next step. Implementing administrative or work practice controls may be appropriate in some cases where engineering controls cannot be implemented or when different procedures are needed after implementation of the new engineering controls. Administrative controls change the way work is done or give workers more information by providing workers with relevant procedures, training, or warnings.

F: Sometimes higher-level controls aren't feasible, and Personal Protective Equipment might be needed in conjunction with other control measures. Personal protection solutions are the last line of defense and typically have only limited effectiveness when dealing with ergonomic hazards.

Slide 17: Engineering Controls (2 Minutes)

F: Engineering Controls are physical changes to the workplace that aim to eliminate or reduce the hazard of the job or task.

F: Some examples of ergonomic engineering controls are:

- Using a device to lift and reposition heavy objects to limit force exertion
- Reducing the weight of a load to limit force exertion
- Repositioning a worktable to eliminate a long/excessive reach and enable working in neutral postures
- Using diverging conveyors off a main line so that tasks are less repetitive
- Installing diverters on conveyors to direct materials toward the worker to eliminate excessive leaning or reaching
- Redesigning tools to enable neutral postures

F: Take a look at these two pictures shown. The before pictures shows the worker needing to repeatedly bend over in order to reach the materials in the bin. The after picture shows a mechanical device has been installed to help lift and tilt the bin so the materials are easier to access and reduces the need to bend over or extend his reach.

Slide 18: Administrative Controls (2 Minutes)

F: Where engineering controls cannot be implemented, administrative or work practice controls may be appropriate.

F: Some examples of administrative (or work practice) controls are:

- Requiring that heavy loads are only lifted by two people to limit force exertion
- Establishing systems so workers are rotated away from tasks to minimize the duration of continual exertion, repetitive motions, and awkward postures. Design a job rotation system in which employees rotate between jobs that use different muscle groups
- Staffing "floaters" to provide periodic breaks between scheduled breaks
- Properly using and maintaining pneumatic and power tools

Slide 19: Lifting in the Workplace - VIDEO (1:29 Minutes)

VIDEO – 1:29 Min

(Click play to play clip)

Slide 20: Personal Protective Equipment (PPE) (1 Minute)

F: While more permanent solutions are being found and implemented, or if you are unable to redesign the job or equipment to eliminate risks, personal protective equipment (PPE) can be used.

F: A few examples of using PPE to reduce MSDs are:

- Using padding to reduce direct contact with hard, sharp, or vibrating surfaces
- Wearing good fitting thermal gloves to help with cold conditions while maintaining the ability to grasp items easily

Slide 21: Benefits of Ergonomics (2 Minutes)

F: There are several benefits to implementing an ergonomics program, including:

- Decreased injury risk
- Increased productivity
- Decreased mistakes/rework
- Increased efficiency
- Decreased lost workdays
- Decreased turnover
- Improved morale

F: There are a lot of changes that you can make to the way you do your job that will make it both safer and better. Changing your job so that it better fits you has other benefits as well. You might find that you're able to do a better job because you have more energy and can concentrate on your work. You might also be less tired at the end of the day, so you can enjoy life outside of work more.

Slide 22: Questions?