



DAY 3 – 10:00AM-10:45AM PDT

MSI PREVENTION

MIS
MAKE IT SAFE

MSI Prevention



What is MSI?

Musculoskeletal injury (MSI) is a group of injuries or disorders of the muscles, tendons, ligaments, joints, nerves, blood vessels or related soft tissue including a sprain, strain and inflammation, that may be caused or aggravated by work.

(Ref: WSBC)

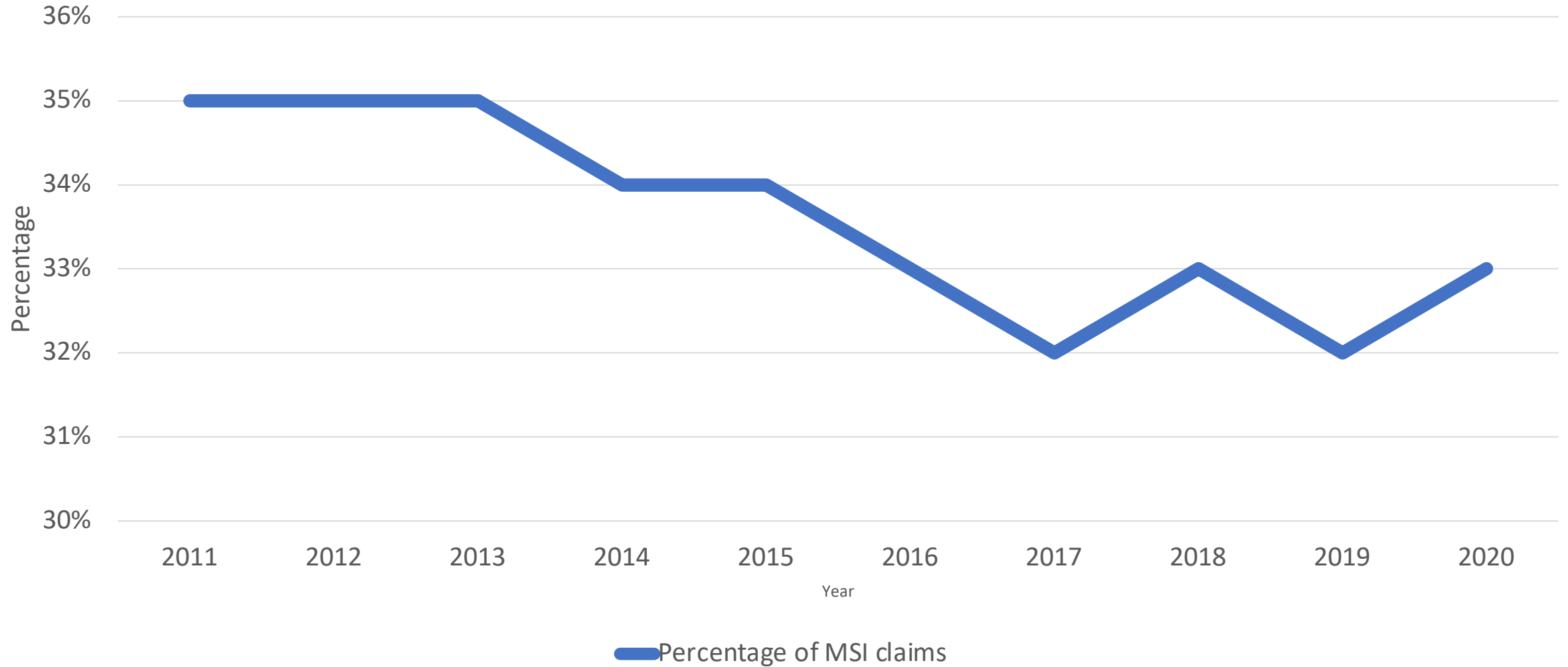


Why is this topic important?



- MSIs are a common type of workplace injury in BC
- Recovery can often take many days, weeks, or even months
- Businesses lose significant revenue due to MSIs

WorkSafeBC stats



HAZARDS



Hazards leading to MSI in Manufacturing



Hazards leading to MSI: Bad design



Hazards leading to MSI: Force

Three types of activity that require force:

- Force involved in lifting, lowering, or carrying
- Force involved in pushing or pulling
- Grip force



Hazards leading to MSI: Repetition



Repetition involves doing a task that uses the same muscles over and over with little chance for rest or recovery.

Hazards leading to MSI: Contact stress

Local contact stress occurs when a hard or sharp object comes into contact with the skin. The nerves and the tissues beneath the skin can be injured by the pressure.



Call to action/next steps

NEXT>>>
STEPS

- Ergonomics Program
- MSI prevention process
- Engineering controls
- Administrative controls
- Education and training



What is ergonomics and human factors?

Ergonomics (or human factors) (HF/E) is the scientific discipline concerned with the understanding of interactions among humans and other elements of a system.

This profession applies theory, principles, data and methods to design in order to optimize human well-being and overall system performance.

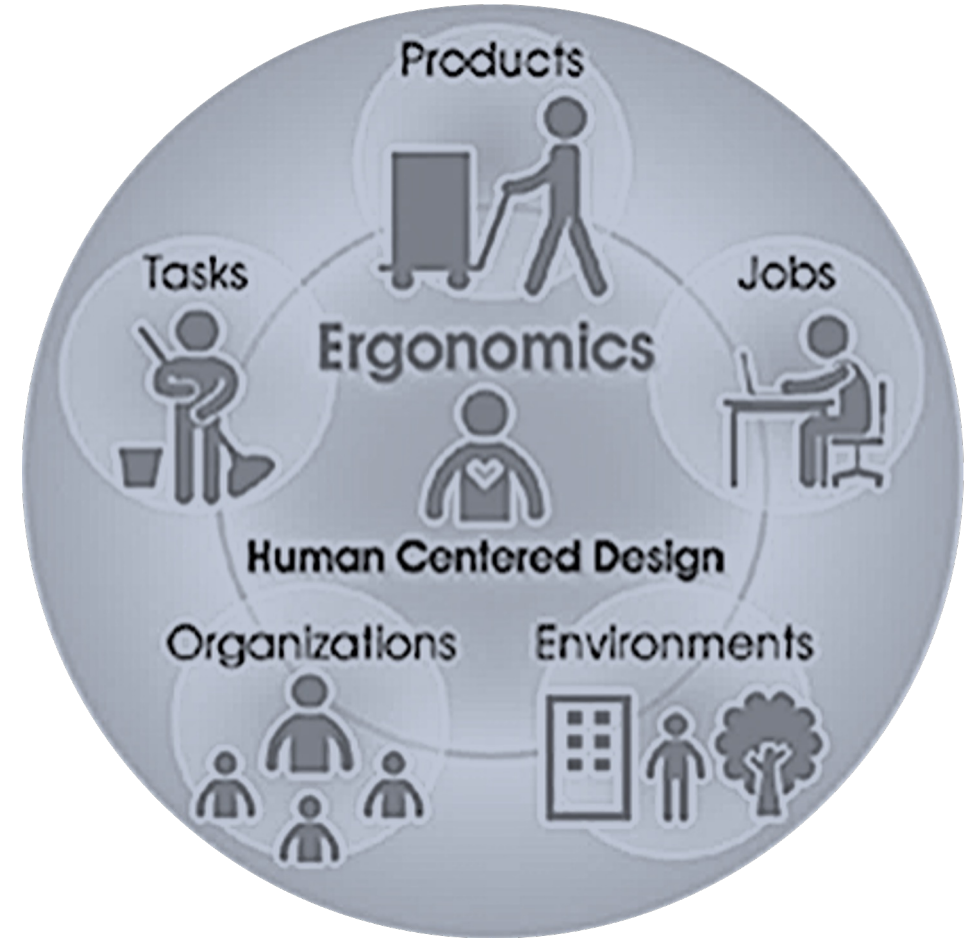
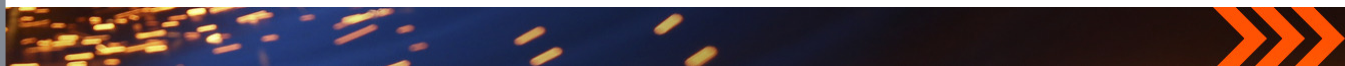


Image credit IEA:<https://iea.cc/what-is-ergonomics/>

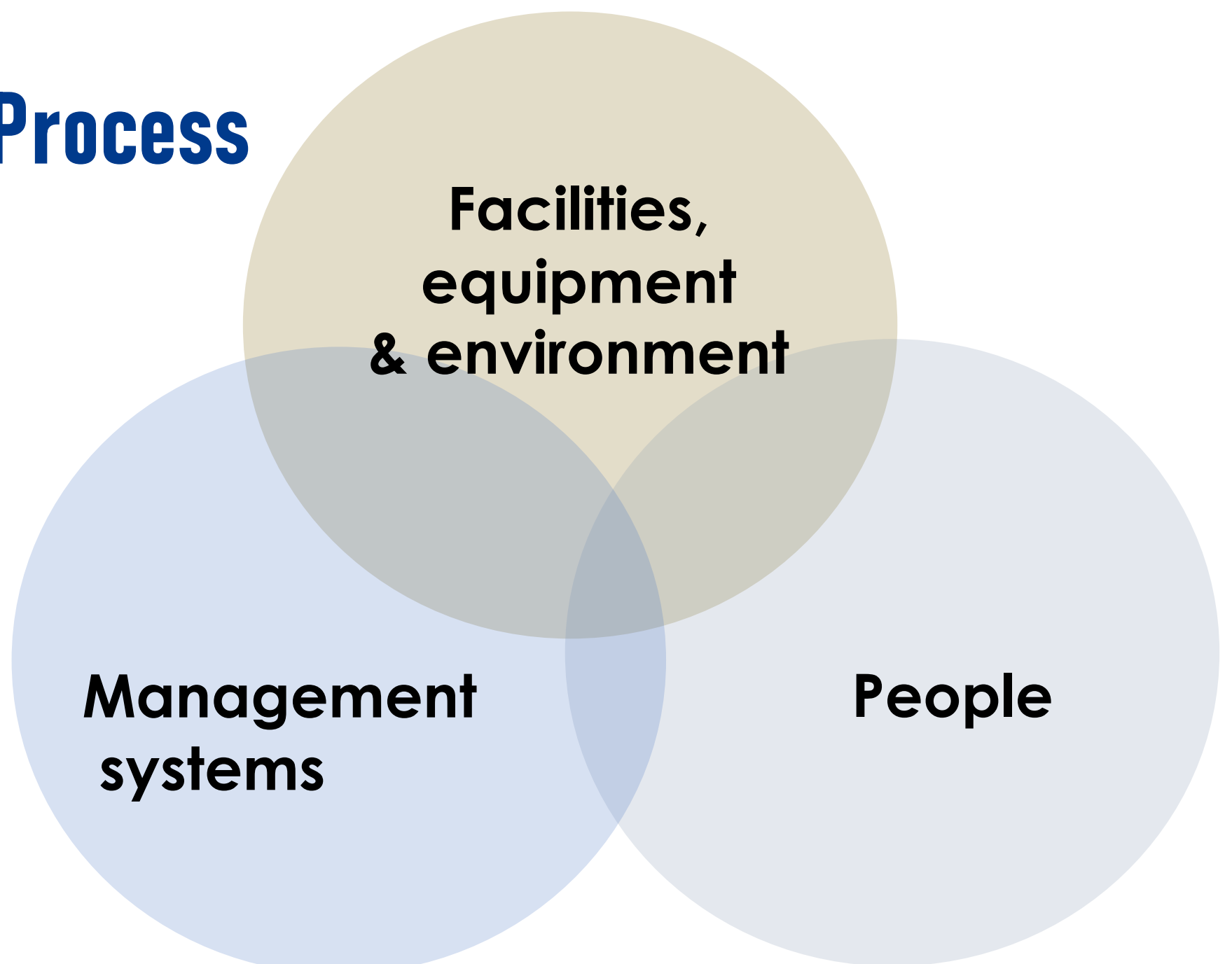
Why Ergonomics?



Ergonomics (HFE) concept reduces the risk of musculoskeletal injuries (MSI), including injury to muscles, bones or joints through designing workplace, equipment, system and work.



Ergonomics Process



Ergonomics: application



Ergonomics can be applied in Information, Workplaces, and Displays and Systems

MSI prevention process

- Consultation
- Education
- Risk Identification
- Risk Assessment
- Risk Control
- Training
- Evaluation

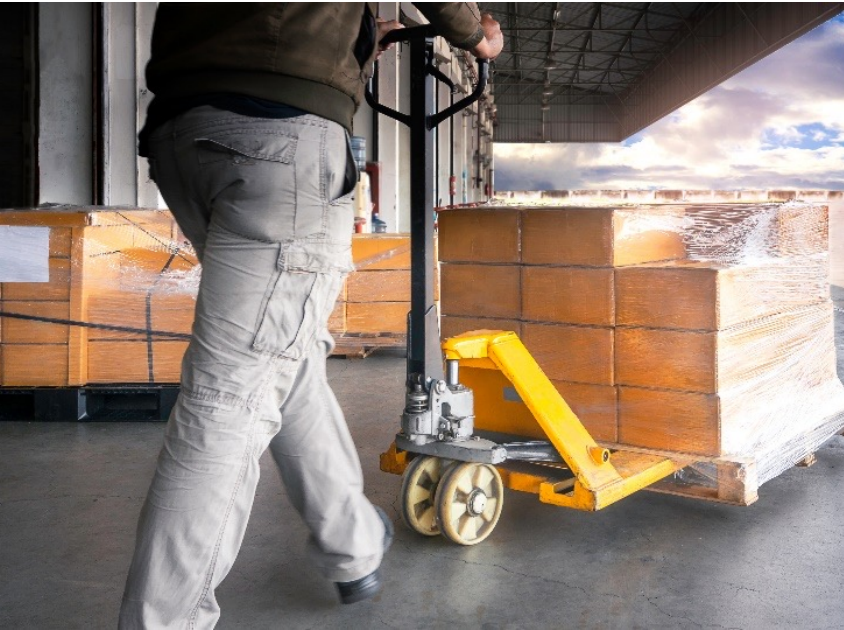


MSI control: participatory ergonomics



Participatory ergonomics is defined as a process of solving ergonomics related problems that involves collaboration of workers as well as the input from other stakeholders.

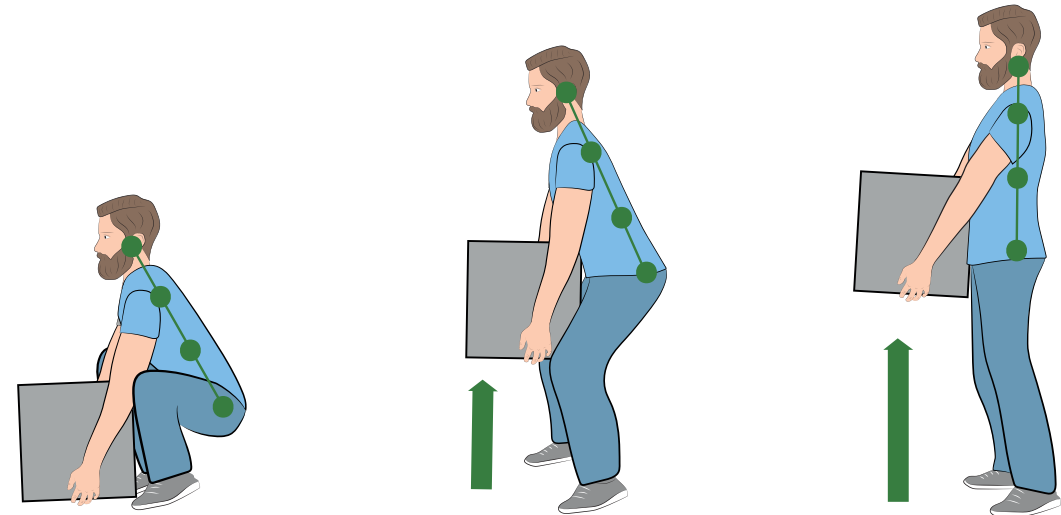
Improve work process: mechanical aids



Provide mechanical aids to lift loads.

Education & training

- Provide education on risk identification including sign, symptoms, and potential health effects of MSI
- Provide training on risk controls such as work procedures, mechanical aids, and PPE



Q & A

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THANK YOU

For more information, please contact:

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