What is a soft tissue Injury?
How do they occur?
How do we avoid them?
Disclaimer

• This soft-tissue injury program is intended to increase awareness of certain factors that may contribute to soft tissue injuries among construction craft workers and to suggest practices that may reduce the risk of such injuries. This program is not intended to provide specific guidance to any one construction company or for any one construction project. This program does not address the entire range of activities or conditions found in the construction industry, or suggest that other approaches to the risk of soft tissue injury do not merit equal consideration. The information that this program conveys is necessarily general in nature.

• While certain practices appear to be desirable, none can guarantee that soft tissue injuries will not occur. This program does not create any obligations, or establish any specific standards or guidelines, for managing the risk of such injuries. It is not an exhaustive or complete treatment of its subject matter.

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• This soft-tissue program does not specify any course of conduct or set of practices required by law or regulation, or convey legal, medical or other professional advice.
Goals and objectives

- Provide a proactive educational awareness program.
- Reduce the occurrence of soft tissue injuries.
- Focus on construction activities.
- Provide practical, usable resources.
- Identify methods/procedures to help develop programs to control/minimize soft tissue injuries in your workplace.
Soft tissue injuries:

– are injuries/illnesses to the body that do not involve skeletal damage, cardiovascular damage, etc.
– are injuries or damage to ligaments, tendons and muscles.
– may result from activities that are common to work and non-work activities.
– may be due to either sudden or long-term exposure
Common types of soft tissue injuries

• Myalgia
  – Sore muscles
• Strains/Sprains
  – Stretch, partial or complete tear
• Bruises
• Inflammation
• Pinched nerves
• Numbness and tingling
Soft tissue injuries in construction

- Injuries most commonly affect:
  - Neck
  - Back
  - Arms/shoulders
  - Hands
  - Fingers
  - Wrists
  - Legs
  - Knees
Soft tissue injuries in construction

Zurich Construction client experience*

- 29% of all injuries reported were soft tissue injuries
- 33% of the most costly insurance claims involve soft tissue injuries
- $3878 – average cost of soft tissue injury claims

Soft tissue injuries are the leading cause of loss in both frequency and severity.

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Soft tissue injury-risk factors

• Awkward postures
  – Any part of the body strained due to unnatural or extreme position
  – Increased stress on joints, muscles, tendons, nerves and blood vessels
  – Increased muscle effort
Soft tissue injury-risk factors

- Extreme force
  - Pushing, pulling or gripping a tool
  - Keeping your body in one position for an extended period of time
  - The more force you exert, the greater the stress on your body
Soft tissue injury-risk factors

• Mechanical stress
  – Caused by the body coming into contact with hard objects or surfaces
  – Contributes to internal strain, pressure or restrictions
  – Prolonged exposure can cause permanent or chronic injury
Soft tissue injury-risk factors

• Prolonged Vibration
  – Muscles work harder when gripping tools that vibrate
  – Body absorbs energy from vibrations
  – Exposure results in fatigue and can result in soft tissue damage
Soft tissue injury-risk factors

- Extreme temperatures
  - In cold weather, muscles tense making strains more likely
  - In hot environments, body temperature increases putting workers at risk of fatigue, cramps, exhaustion or even stroke
Soft tissue injury-risk factors

- Repetitive Motion
  - Performing the same activity over and over for an extended time
  - Puts stress on muscles, tendons and joints
  - Without time for rest and recuperation, soft tissue injuries may result
Soft tissue injury-risk factors

Lifestyle choices

- Poor physical conditioning, lack of exercise, excess body weight
- Smoking
- Alcohol
- Stress
- Age
Solution and prevention of soft tissue injuries

Manual material handling/concrete

• Plan the work before starting
• Check route to ensure clear path
• Talk with each other before starting a task
• Make sure area is free of hazards

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Solution and prevention of soft tissue injuries

Work practices

• Wear PPE
  – Padding
  – Gloves
• Use proper lifting techniques
• Teamwork
• Avoid jumping
• Use appropriate tools for the task
• Keep material in the lifting zone
• Stretch before and after work
Equipment operation

- Take breaks to stretch muscles that have continuously been in one position or exposed to vibrations
- Consider anti-vibration gloves
- Consider seat pad to absorb constant vibration from heavy equipment.
- Dismount from machinery carefully – Don’t jump!

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Solution and prevention of soft tissue injuries

Tool safety

- A tool may have a long handle, but using it may force you to stretch in a way that arms, shoulders and neck can be injured.
- Carefully plan each job. Have the right tools available for the work. Practice good housekeeping.
- Proper body positioning and proper tool use are key to avoiding soft tissue injury.
Solution and prevention of soft tissue injuries

Total Wellness

• The best way to achieve physical well-being is through a “total wellness plan”
• Total wellness includes
  – Exercise
  – Weight management
  – Healthy eating
  – Avoiding tobacco products
Solution and prevention of soft tissue injuries

Stretching

• Start each work activity with stretching
• Warming up muscles before work helps prevent injury
• Like athletes, construction workers need to stretch before and after work to lengthen tired or tense muscles

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Solution and prevention of soft tissue injuries

Exercise

• Consult your doctor before starting any exercise program

• Exercise strengthens muscles and allows them to work harder, longer.

• Regular exercise improves flexibility, reducing the chance of a soft tissue injury
Solution and prevention of soft tissue injuries

Healthy weight

- Extra weight causes greater strain on the musculoskeletal system
- For every pound of extra weight, the spine sees 10 additional pounds of force
- Regular exercise can help you lose weight and reduce back strain while increasing your overall fitness

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Conclusion

Real life situations

- Not every risk factor has been addressed in this presentation
- Not every control measure has been addressed in this presentation

Commitment to change

- You now know basic techniques
- You can identify the risks and minimize the likelihood of a soft tissue injury
Conclusion

Thanks for participating.

Questions?