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*Keeping America on the Job!*

# Early Symptom Intervention: A Sports Medicine Approach to Keeping the Industrial Athlete in the Game

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**SACO BAY**  
Orthopaedic & Sports  
**PHYSICAL THERAPY**

# About Saco Bay Orthopaedic & Sports Physical Therapy

<https://www.sacobaypt.com/>

- Founded in Saco ME in 1998
  - Larry Risigo currently Regional Director in ME
- A network of 40 outpatient centers in ME & NH
  - 2 more opening soon!

## MAINE AND NEW HAMPSHIRE LOCATIONS

**CORE SERVICES:**

- » Physical Therapy
- » Occupational Therapy
- » Orthopaedic Rehabilitation
- » Low Back Rehabilitation
- » Sports Medicine
- » Fitness/Wellness
- » WorkStrategies® Program - Work Injury Prevention & Management Program

**AND MUCH MORE.**

For more information regarding programs and services or to request an appointment, please contact a center near you or visit [sacobaypt.com](http://sacobaypt.com) today.

CONNECT

SACOBAYPT.COM



# Supported by Select Medical since 2013

- The nation's leading provider of specialized health care in both inpatient and outpatient settings
- Corporate office in Mechanicsburg, PA
- Local services, national resources



50,000+  
Employees

## Four Operating Divisions:

Long-Term  
Acute Care  
(LTAC) Hospitals  
(95+ hospitals)

Inpatient  
Rehabilitation  
(25+ hospitals)

Outpatient  
Division  
(1,700+ outpatient  
locations)

Occupational  
Medicine  
(500+ locations)

# Experience with Companies



**GENERAL DYNAMICS**  
Ordnance and Tactical Systems



# Injury Prevention Specialists



Providing a Continuum of Services

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# Today's Objectives

- Review risk factors for musculoskeletal disorders and their impact for employers
- Discuss the definition of early symptom intervention (ESI), OSHA definition of First Aid and the benefits of an ESI program
- Compare an employer's obstacles and challenges in starting a program
- Review key factors that make a program successful including customization, communication and return on investment tracking

# Impact of Work-Related Musculoskeletal Disorders (WRMSD)



Nearly 1M injuries resulting in lost work time



Nearly half due to back sprains and strains



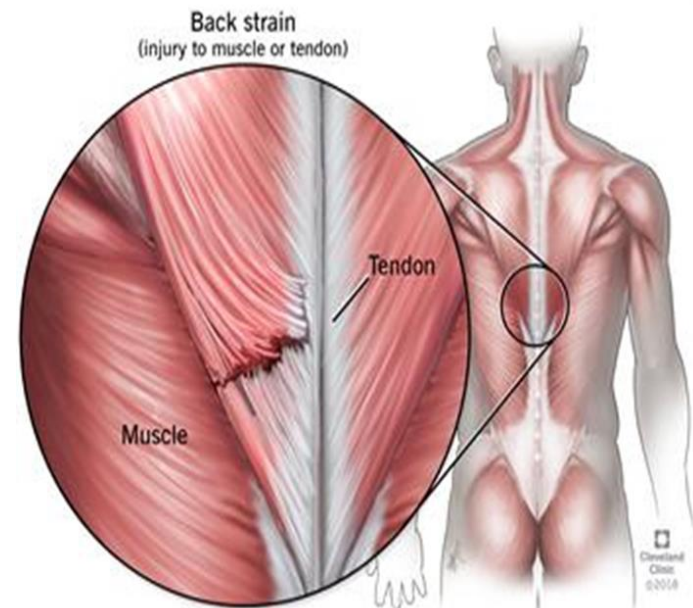
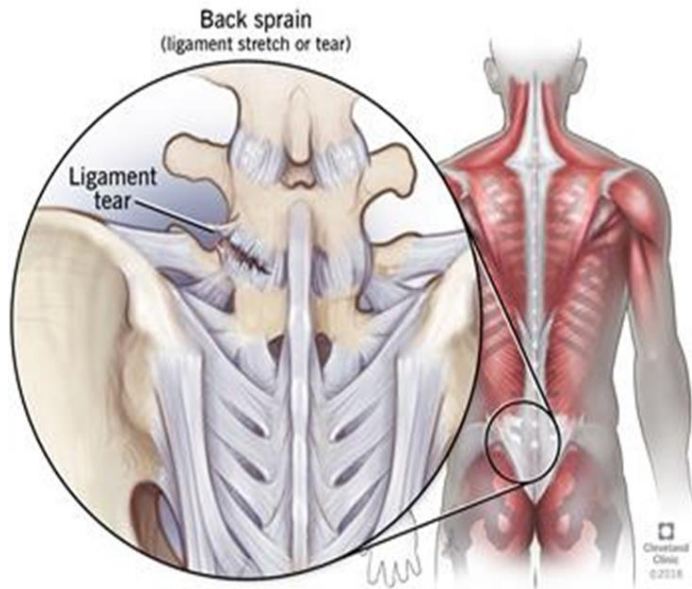
Direct and indirect costs of MSD and CTS are over \$20B

<https://www.bls.gov/iif/>

<https://www.cdc.gov/niosh/nioshtic-2/20044181.html>

# What are Work-Related Musculoskeletal Disorders?

Injuries or disorders of the muscles, nerves, tendons, joints, cartilage and spinal discs





# WRMSD: Traumatic/Acute

Sprains



Tear of ligament or cartilage

Strains



Tear of muscle or tendon

Contusions



Bruise

Abrasions

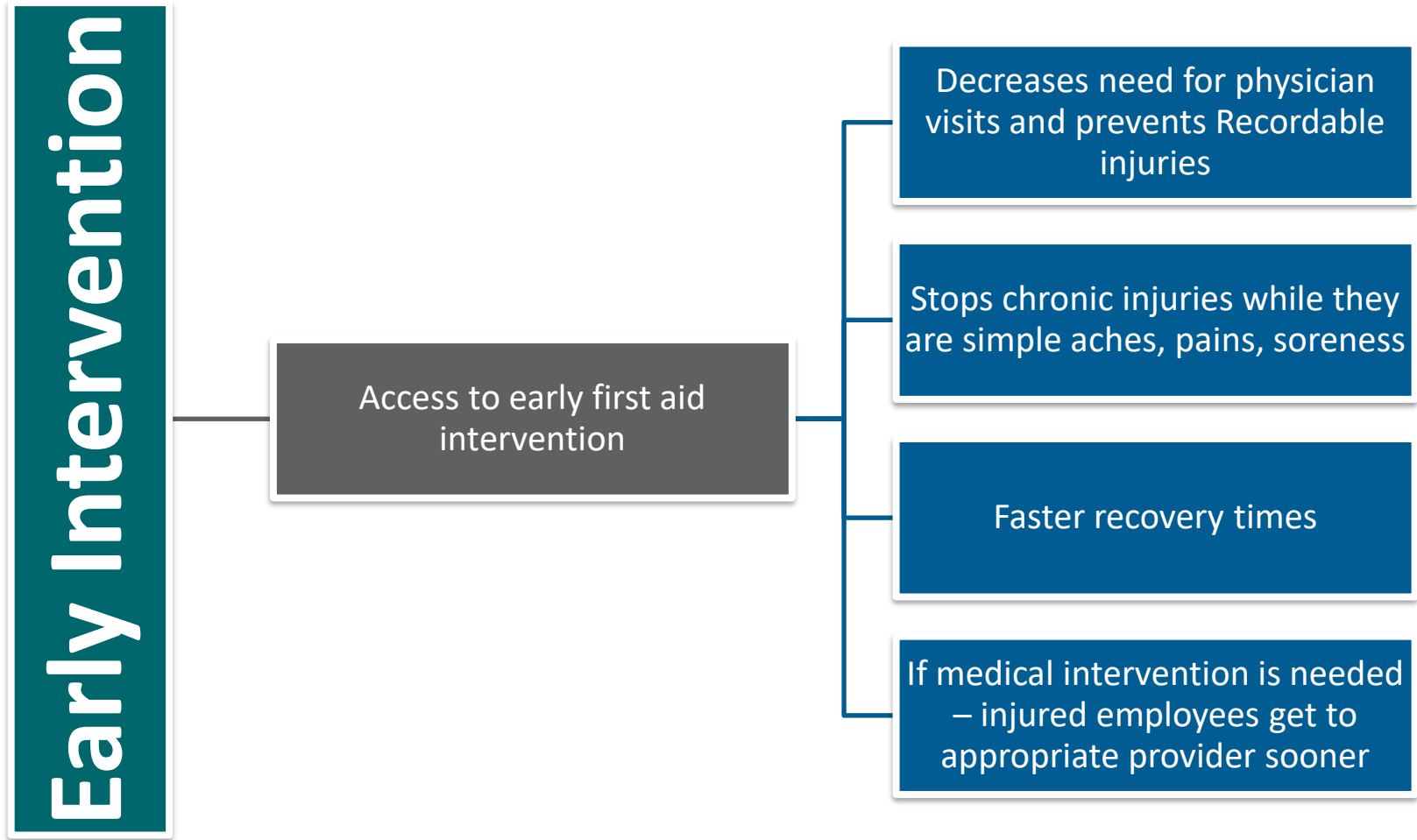


Scrapes / cuts

# WRMSD: Insidious/Chronic

- Cumulative trauma
- Repetitive strain
- Overuse syndrome
- Common Diagnoses:
  - Tendinitis
  - Bursitis
  - Arthritis
  - Impingement
  - Bone spurs
  - DDD

# Key to Preventing WRMSD



# Select Medical's Early Symptom Intervention (ESI) Programs



## OnSite

- Injury Prevention Specialist onsite at employer location
- Set weekly schedule
- Appropriate for larger employers or high injury risk



## Center Based

- Employees go to nearby Select Medical facility
- Appointments within 24 hours
- Appropriate for smaller employers



## Virtual

- Employees "call" Select Medical Virtual Injury Prevention Specialist
- Appropriate for remote / smaller / satellite locations, off hours
- On call

# ESI Providers

## OnSite

Athletic Trainer  
/ Injury  
Prevention  
Specialist

## Clinic Based

Physical /  
Occupational  
Therapist / ATC

Physical  
Therapist  
Assistant

## Virtual

Athletic Trainer  
/ Injury  
Prevention  
Specialist

# PT/ATC Qualifications

- Experts in:
  - ✓ Musculoskeletal Assessment
    - Confidence when referrals are needed
    - Don't order imaging
  - ✓ OSHA first aid applications
  - ✓ Biomechanics & Kinesiology
  - ✓ Ergonomics



# Program Components



OnSite

- ESI
- Job Analysis
- Ergonomic Intervention
- Injury Prevention Programs
- Wellness



Center Based

- ESI
- Job Analysis\*
- Injury Prevention Programs\*



Virtual

- Virtual ESI
- Virtual Job Analysis
- Injury Prevention Programs
- Virtual Wellness Consulting

# ESI Program Goals



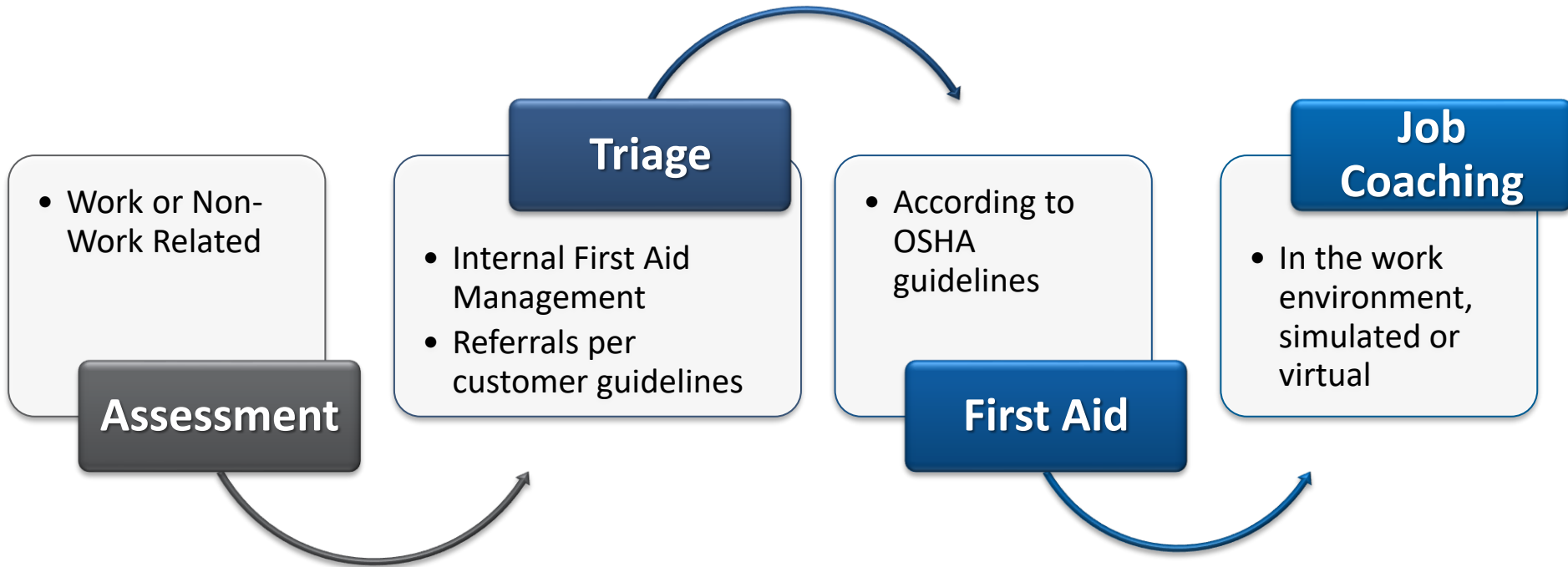


# Early Symptom Intervention

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# Early Symptom Intervention (ESI)



# ESI: First Aid

Regulated by OSHA: 1904.7(b)(5)(ii)



Non-prescription Meds  
at non-prescription dose



Wound Care



Hot or Cold Application



Non-Rigid Support

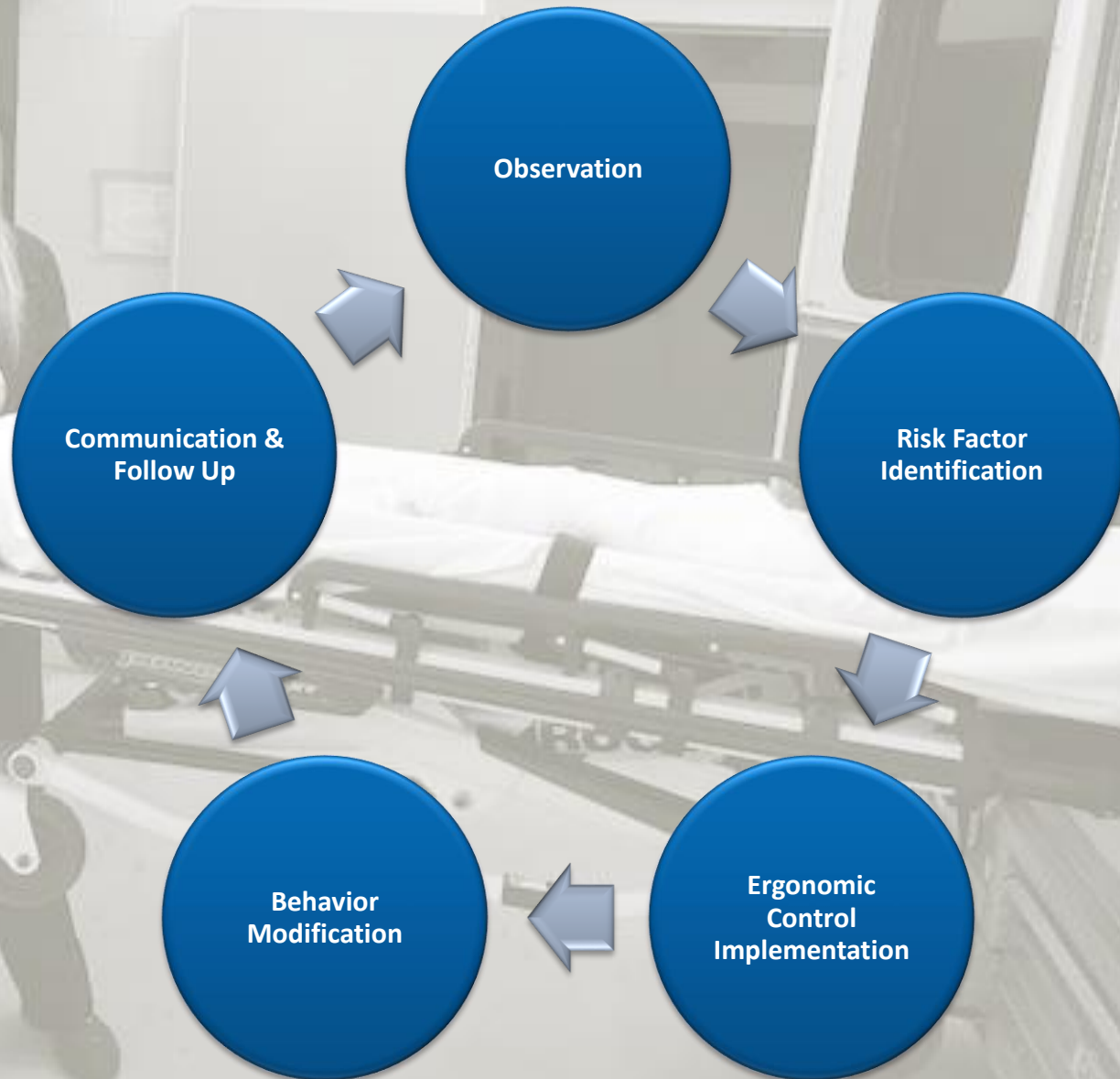


Massage



Hydration

# ESI: Behavior Modification & Job Specific Coaching



# Job Analysis / Injury Prevention Programs

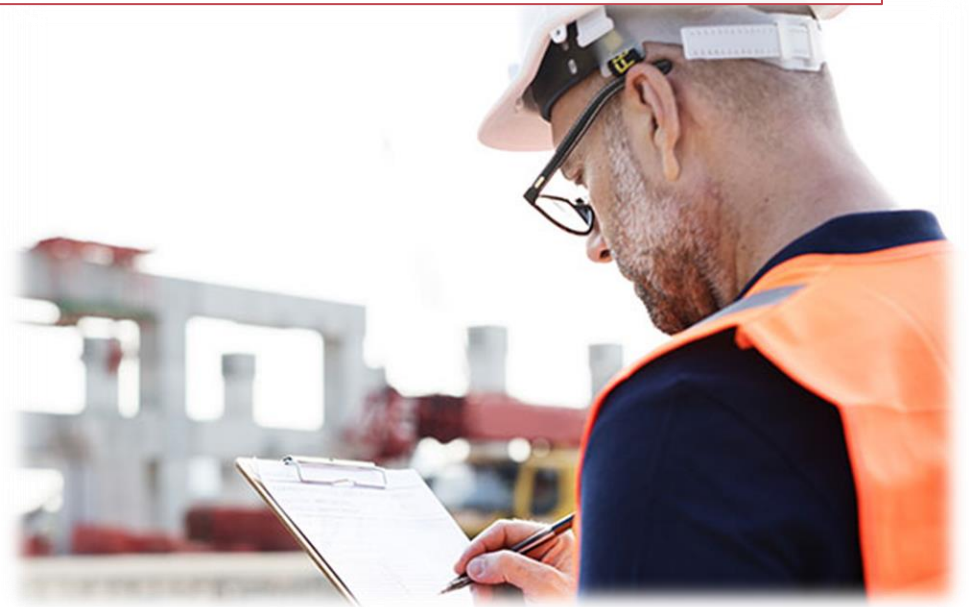
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# Physical Demands Analysis

## Comprehensive analysis of job demands

- Job Description Updates
- Post-Offer Employment Test Development and Stretching program development



# Injury Prevention: Custom Stretch & Strength Programs

- Customized based on most frequently used muscle groups
- Can be used for prevention or in conjunction with first aid

## » ON THE JOB STRETCHES

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**Calf Stretch**

- » Stand facing a wall, approximately arm's length away.
- » Place right leg back one step with the heel flat on the ground and take a step forward with left leg.
- » With palms flat on the wall, lean forward while keeping the right knee straight, heel flat and back straight.
- » Hold 10 seconds.
- » Repeat 3 times to each side.



**Chest Stretch**

- » Standing in a door jam or using a stationary object, put 1 hand on outside of the door jamb/object at chest level.
- » Step forward until you feel a stretch in chest.
- » Squeeze shoulder blades together.
- » Hold for 10 seconds.
- » Repeat 3 times.



**Hamstring Stretch**

- » Place your leg on a step or on the ground, keeping your leg straight.
- » Keeping your back straight, slowly bend forward.
- » Hold for 10 seconds.
- » Repeat 3 times on each side.



**Shoulder Stretch**

- » Stand straight with feet shoulder width apart.
- » Reach across body with right arm.
- » Grab the right elbow with left hand and gently pull across body.
- » Keep shoulders and hips pointed straight ahead.
- » Hold 10 seconds.
- » Repeat 3 times to each side.



**Trunk Rotation**

- » Stand straight with right hand on hip and left arm reaching across chest.
- » Rotate trunk to the right looking over right shoulder.
- » Hold for 10 seconds.
- » Slowly return to start position.
- » Repeat 3 times each side.



**Upper Trap Stretch**

- » Stand with your feet shoulder width.
- » Slowly tilt head to the left bringing the ear to the shoulder.
- » With the left hand apply gentle pressure to the right side of the head.
- » Hold for 10 seconds.
- » Repeat 3 times for each side.



**Wrist Extensor Stretch**

- » Straighten left arm in front of you.
- » Keep elbow in straight position.
- » Bend hand down, increasing wrist angle as far as you can.
- » Apply gentle pressure with the right hand.
- » Hold for 10 seconds.
- » Repeat 3 times for each side.



**Wrist Flexor Stretch**

- » Straighten left arm in front of you with palm up.
- » Keep elbow in a straight position.
- » Extend hand up, increasing the wrist angle as far as you can.
- » Apply gentle pressure with right hand.
- » Hold for 10 seconds.
- » Repeat 3 times for each side.

# Prevention Programs

- ✓ New Employee Orientation
- ✓ Job Conditioning
- ✓ Return to Work Program
- ✓ Best Practices
- ✓ Work Station Set Up
- ✓ Educational Programs
- ✓ Body Mechanics Audits
- ✓ Office Ergonomics



# Reporting

- ✓ ESI assessment reports
- ✓ Weekly encounter reports
- ✓ Monthly stewardship and OSHA injury tracking
- ✓ Annual data review and analysis
  - What information is valuable to you?
    - OSHA Recordables
    - Claim Costs
    - Injury Severity
    - Saves

# Calculating Return on Investment

**“Saved Cases”**

# of New ESI Assessments that do NOT become claims or OSHA recordables

**Value of “Saves”**

# of “Saves x average musculoskeletal injury claim cost

**Resolve Rate**

% of New ESI Assessments that do NOT become claims or OSHA recordables

**Potential Cost Savings**

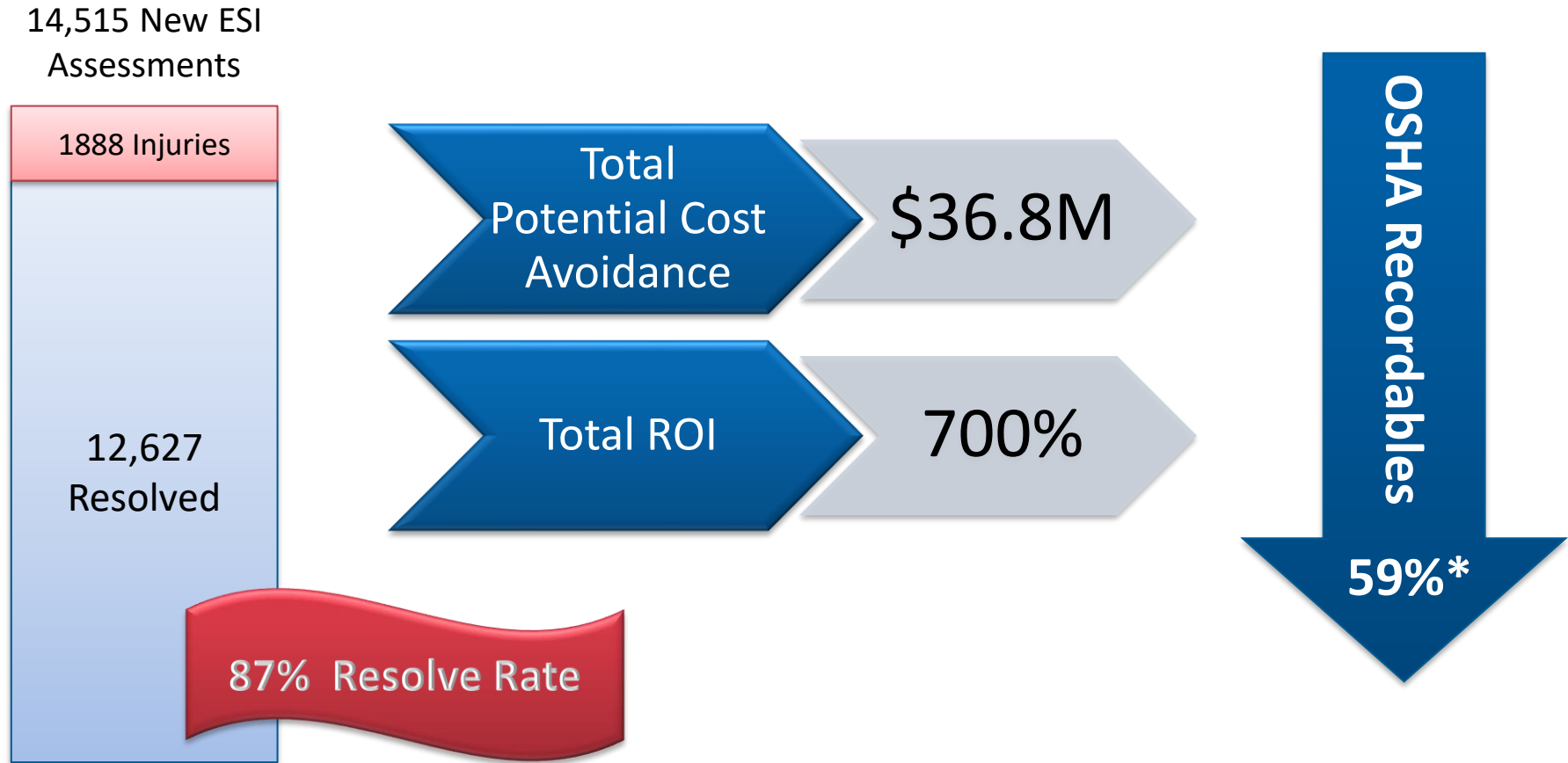
Value of “Saves” – Cost of OnSite Program

**ROI**

Value of “Saves” as a ratio of program cost

# Return on Investment: Large Package Handling & Transport Company

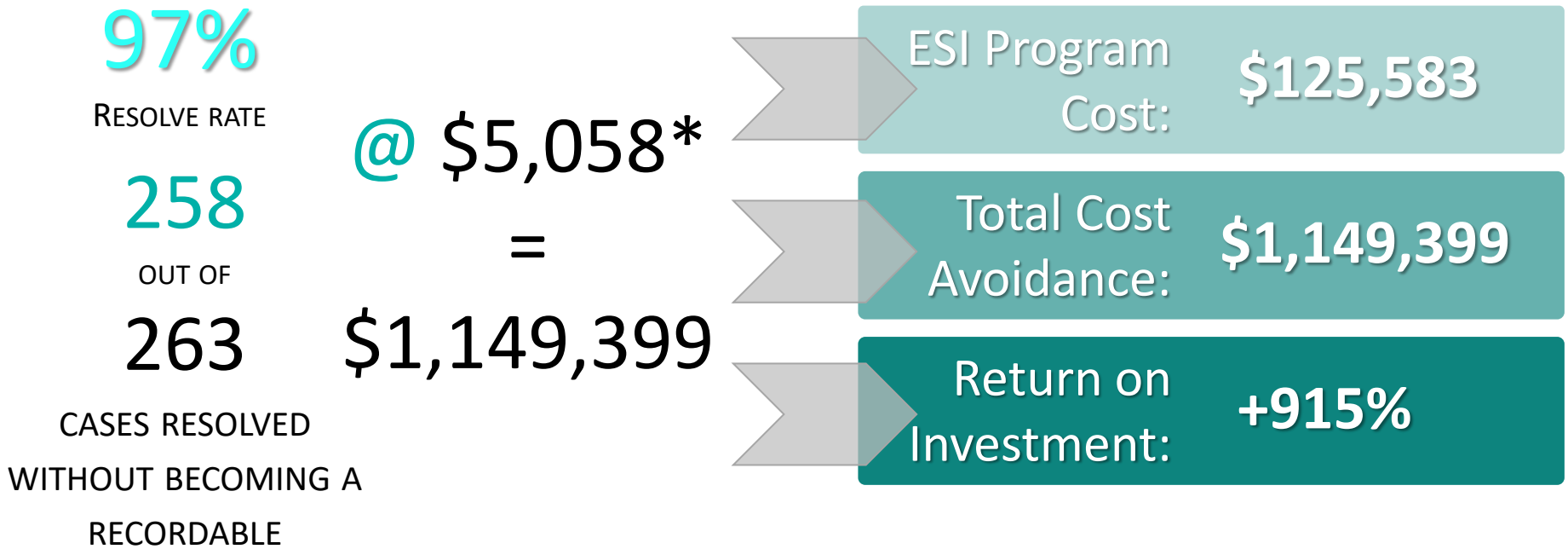
*Six Year Demonstrated Savings, Four Locations*



\*Based on data from 3 locations

# Return on Investment: Manufacturing

*Two Year Demonstrated Savings, Three Locations*



\* Average Musculoskeletal Injury Claim Cost

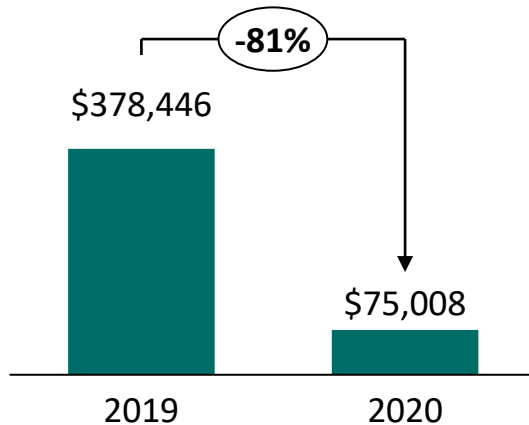
# Return on Investment: Food Distribution

## One Year Demonstrated Savings, One Location

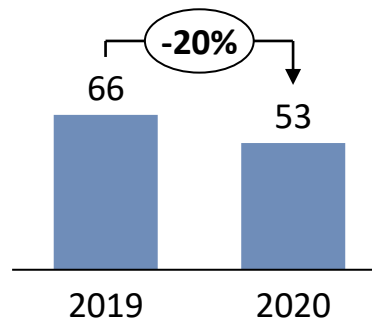
Frequency decreased by **13 cases** in 2020, but severity decreased by an average of **\$4,689** per case (**\$303K** for the year)

\*Last Updated in Dec 2020

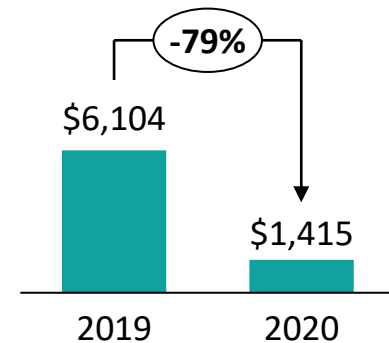
### TOTAL INCURRED



### TOTAL CASES



### AVERAGE SPEND / CASE



# Return On Investment – Lumber Company clinic based ESI

**13**  
OUT OF  
**14**  
CASES RESOLVED  
WITHOUT DOCTOR

@  
**\$6,000**  
PER CASE  
=  
**\$78,000**



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What questions can we answer for you?