

The S.H.A.K.E Model: Muscle Memory-focused Hand Protection Inspired By Dredging Crews

June 15, 2016
WODCON XXI Miami, Florida

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TODAY'S DISCUSSION

1. What We Know About Hand Injuries
2. S.H.A.K.E. Program Overview
3. United States & Middle East Pilot & Rollout
4. Project Launch
5. System-wide Sustainment



What We Know About Hand Injuries

> 2014 CONSTRUCTION INDUSTRY HAND INJURY STATS*

> Total Recordable Hand, Finger, Wrist Injuries: 2,386

- > Finger injuries led with 31.44% of total
- > Hand/Wrist injuries were 10.03% of total

> Total Lost Time Hand, Finger, Wrist Injuries : 743

- > Finger injuries led with 22.88% of total
- > Hand/Wrist injuries were 6.85% of total

*Source: Bureau of Labor & Statistics; US Department of Labor. Incidence rates represent the number of injuries and illnesses per 10,000 full-time workers and were calculated as (N/EH) x 20,000,000 where N= number of injuries and illnesses EH= total hours worked by all employees during the calendar year 20,000,000= base for 10,000 full-time equivalent workers (working 40 hours per week 50 weeks per year).



> GREAT LAKES HAND INJURY STATS

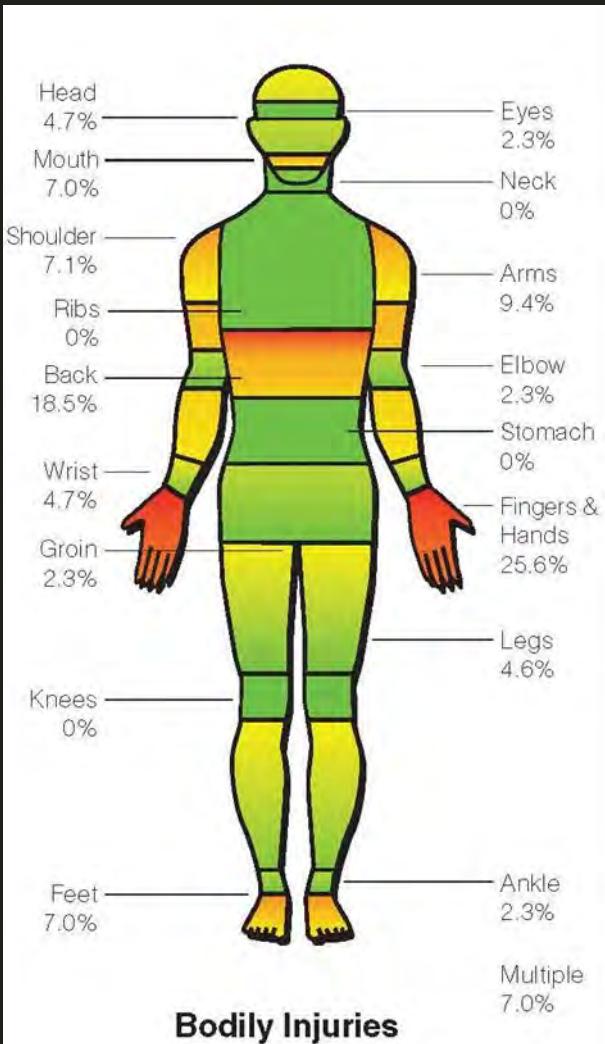
- > Typically, hands, fingers, and wrists account for roughly 30% of total injuries
- > 2014
 - > 4% Hand, 25% Finger, 29% combined
 - > Of the 29%, 1/3 finger fractures (high severity)
- > 2015
 - > 9% Hand , 16% Finger, 25% combined
 - > Of the 25%, just under 1/3 finger fractures with 1 amputation (high severity)
- > 2016 YTD
 - > 21% Finger
 - > Of the 21%, just under 1/3 finger fractures (high severity)



> PRIOR HAND PROTECTION INITIATIVES

- > Field-based glove study, upgrade of gloves selection, and rollout of revised glove PPE chart
- > Consideration of hand exposures in the development of *Save A Life Today* safety rules
- > Study of hand injuries using multiple cause incident analysis
- > Inclusion of hand hazards in task-based written and verbal JSAs





> S.H.A.K.E PROGRAM DESIRED OUTCOMES

- > Reduction in hand injuries fleet-wide
- > Crew ownership and leadership of a *different* approach to hand protection
- > Clear understanding of glove chart and use of the right glove for the task
- > Muscle memory-based hand protection skills
- > Peer-to-peer call outs when hands are at risk
- > Increased hand-related Good Catch and Near Miss reporting
- > Continuous reinforcement of hand hazard awareness through JSAs

> S.H.A.K.E. PROGRAM PILOT DESIGN

- > Work products developed with fleet/field martial arts, wrestling SMEs
- > US Dredge New York and Drillboat Apache and Middle East pilot sites
- > 2½-hour program kick off with tool box meeting reinforcement
- > Updated PPE Glove Chart
- > Moxie Media video: *Step Back for Safety: Hand Protection* and quiz
- > Elevation of hand hazard awareness in 100% of Job Safety Analyses



- > **S.H.A.K.E. MODEL**
- > Stand proud
- > Hand check!
- > Anchor off hand
- > Know your gloves
- > Eye-hand exercises



> **S.H.A.K.E. CORE & PILOT TEAMS (DOMESTIC & INTERNATIONAL)**

- > Project Lead: Senior Vice President, Corporate IIF and Northern Area Manager
- > Project Engineer and Wrestling SME
- > Mechanical Division Dredge Manager
- > Project Managers
- > Captains
- > Chiefs
- > Deck Captains
- > Deck Foremen
- > Crew
- > Director of Safety and Risk
- > International Division DSHEM
- > SSHA



> CURRENT SUCCESSES

- > Sessions averaging between 2½ and 3 hours, including a 10-minute break
- > Full-scale rollout is complete
- > 100% of employees have been through the program
- > Strongly positive response and engagement surrounding hand awareness from all crews
- > Hacky Sacks the favorite part
- > “Everyone appreciates what we are doing with hand protection and are fully engaged in the exercises and stretching.”
- > Despite language barriers on content, exercises cross diverse crews



United States & Middle East Pilot and Rollout Report



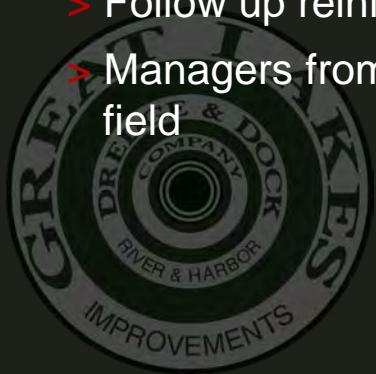
> SYSTEM-WIDE ROLLOUT—SAFETY WEEK & BEYOND

> Preparation

- > Train the trainer video and coaching of facilitators
- > Sites prepped for launch sessions
- > Materials finalized and distributed to fleet

> Launch

- > Locally-facilitated launch meetings on all project sites, with care taken to reach non-dredge locations
- > Follow up reinforcement across all crews
- > Managers from all levels participating in the field



> Follow Up

- > Check progress re use and impact of new knowledge and exercises
- > Include S.H.A.K.E. in New-hire Orientation
- > Revise JSA's to focus on hands placement, line of sight, balancing, and shaking loose
- > Extend hazard identification effort to pinch and crush points

> MANAGER ENGAGEMENT (A SELECT LIST)

- > Join us. We're having a blast and making a difference!
- > Know Hand Protection project's goals, planned activities and schedule, and resource needs
- > Track hand injury data and act accordingly
- > Encourage hand-related Good Catches and Near Miss reporting
- > Coach site supervisors for maximum program support
- > Take a S.H.A.K.E. Hand Protection walking tour:
 - Confirm expectations and offer support
 - Spot check that JSA's emphasize hand protection
 - Confirm necessary gloves are in stock
 - Stand down crew to check S.H.A.K.E. understanding of program
 - Be prepared to facilitate a quick refresher, if needed



> PROJECT MANAGERS SPEAK

- > 100% gloves requirement easy to see and enforce
- > Strong enforcement causing new norm
- > Leadership: visible Captain/Chief/Foreman enthusiasm a huge positive
- > Surprise: eye-hand coordination is improving noticeably in drills day to day
- > Ease: “Hand check!” in use as “heads up!”
- > Fluency: crews initiating SHAKE drills each day, including during project-related meetings off the job site



> SAFETY DEPARTMENT SPEAKS

- > Right tool for the job: classroom rollout design requires available and equipped classroom
- > 100% gloves being practiced, and going live in August 2016
- > 58% reduction in finger/hand/wrist injuries 2016 vs. 2015
- > Regular requests for new hacky sacks
- > Noticeable difference in hand hazards being noted on JSA's
- > Team members are calling for "Hand Check!"



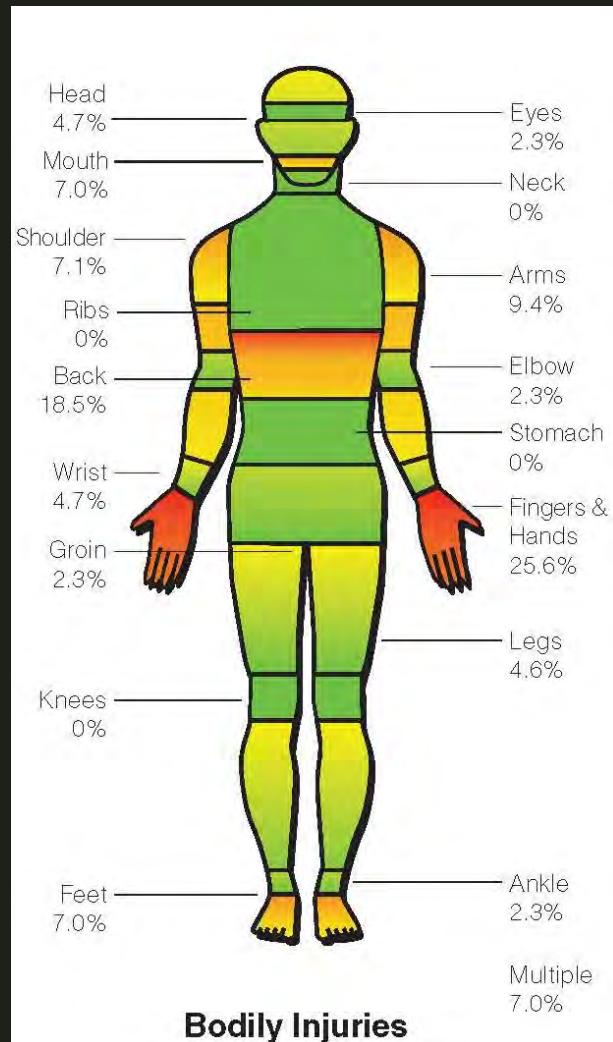
> CREWS SPEAK

"I believe me and my crew have benefitted greatly with tossing the ball around in the mornings. Not only does it raise your awareness, it shows you how to watch others' hands as well as your own". - Clayton Gibson

"[The hacky sack] brings a sense of urgency to my focus ability, similar to doing morning stretches, meaning the exercise capitalizes on my level of awareness and prepares me to know how to react to unsafe situations if they occur." - David Limon

"As for myself and the crew members, we do enjoy and benefit greatly from what seems like a simple exercise. It not only improves our hand-eye coordination, but seems very therapeutic. Everyone agrees that it does bring attention to your hands and focuses your mind on where your hands are along with where others' hands are." - Donnie Rhodes





100% Hand
Protection is
the Goal



Questions?



hile group

Thank you.

