

CSHEMA INNOVATION AWARD APPLICATION

Category: Process Improvement Area: Training Program Institution: Stanford University - Residential & Dining Enterprises Division: Maintenance Operations and Capital Projects / Student Housing Operations	Applicant's Name: Susie Claxton & Jommel Gutierrez Team: Health, Safety and Sustainability Date: March 20, 2018
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Executive Summary

Strain/sprain-related incidents account for the majority of total injuries of Stanford University Residential & Dining Enterprises (R&DE) Student Housing (SH) custodial employees. In 2015, SH devoted resources to implement a Stretch and Flex (S/F) program for custodial staff. The S/F program provides work-specific stretches to help our employees increase their overall flexibility and range-of-motion. These stretches will lengthen the muscle tissue making the muscles less prone to trauma, tears, and other types of injuries. The stretching program will also help muscles and tendons recover more quickly from job fatigue.

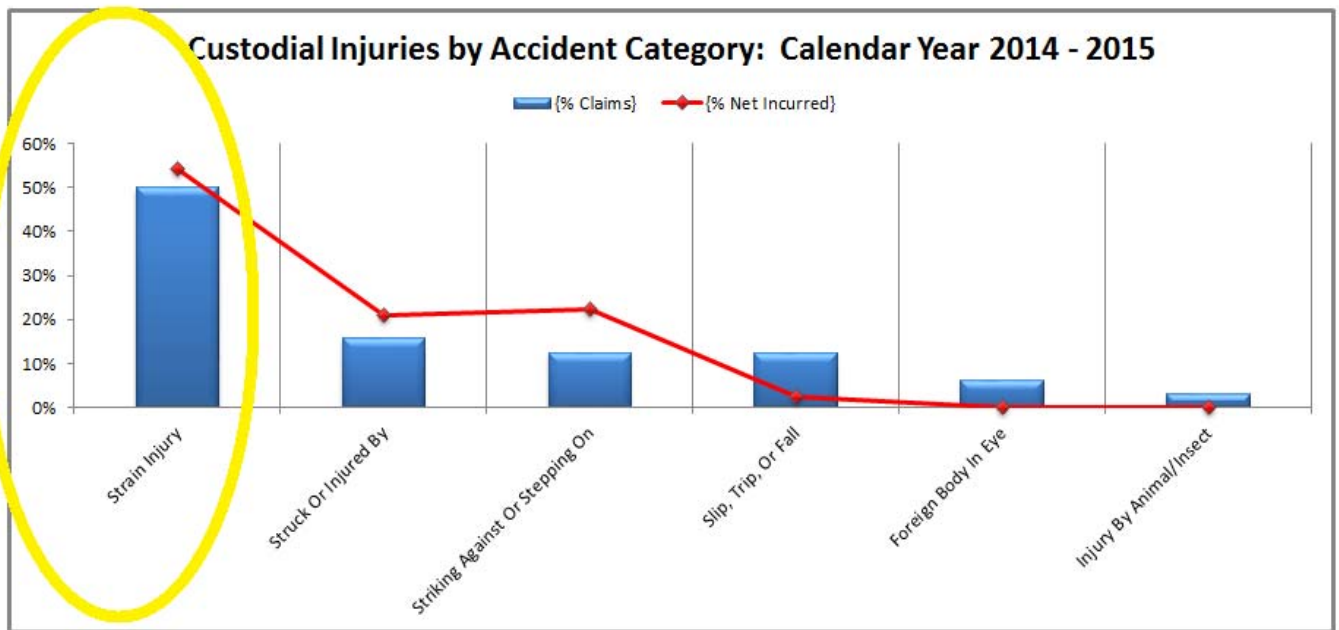
Stretching is recognized by numerous experts as having many benefits. This fairly simple and effective activity may decrease the risk of injury, increase work or activity performance, and minimize muscular soreness. Stretching may help decrease the chances of an activity-related injury by increasing the length of both the muscles and the tendons that are stretched.

Implementation includes an introduction by management, rationale and facilitation, as well as proper instruction and supervision.

Since the rollout, SH has seen an overall 18.2% reduction in strain/sprain frequency and 36.5% reduction in strain/sprain severity. Although we are not able to conclusively link reduced work related musculoskeletal injuries to an S/F program, the benefits outweigh the cost.

I. Identification of a Safety Problem

In SH custodial activities, strains have consistently been the leading injury type over the years. Overexertion, manual material handling and repetitive motion are the cause of most strain injuries. From 2014-2015, strain injuries resulted in 50% of the total claims and 54.3% of the total incurred costs. See figure below. Measurable preventative efforts such as the S/F program helps promote safety as an organizational value and priority.



II. Scope of Project – Cost to Implement, Method of Implementation, and Cost Effectiveness

Effective implementation of a stretching program depends on the specific location, typical work activity, and how comprehensive the stretching regimen needs to be. Effective stretching implementation would include an introduction by management, rationale and facilitation, as well as proper instruction and supervision.

- Introduction from management consists of both written and verbal communication from a Director and an operations manager.
- Employees participating in the stretching program must be provided with some rationale for the benefits of a stretching program. The benefits of such a program may include:
 1. reduced risk of injury to joints, muscles, and tendons;
 2. reduced muscular soreness;
 3. enhanced physical performance;
 4. reduced overall costs associated with work-related injuries.
- Ideally, stretches should be conducted two to three times per day; that is, at the beginning of a shift, after mid-day break or lunch break, and at the end of the work shift (as a cool-down.)
- In order to promote a safe and effective program, the leaders of the stretching program should ensure that employees are properly trained and monitored.

The program is customized and developed for custodial staff of RD&E SH by experts from Risk Management, Health & Safety and Zurich Services Corporation. Stretching and warm up takes each employee approximately 7-8 minutes at the start of each day to complete.

Approximately 80 undergraduate custodians and 15 management/supervisors receive onsite training. The roll out involves the following:

- Six one (1) hour training sessions of 15 - 16 participants over a week's period
- Two training sessions conducted per day over three consecutive days or a combination of days, e.g., Wed-Thurs-Fri
- Managers/supervisors receive training as a management group and as part of their respective teams
- Training materials include the following:
 1. 5 ft. x 7 ft. Banner = 2 (1 English and 1 Spanish)
 2. 30 in. x 36 in. Posters = 15 copies (10 English and 5 Spanish)
 3. Leaders Guides = 130 copies (110 English & 20 Spanish)
 4. Library of Stretches = 30 copies for managers
- “Field leader pocket guide” contains weekly stretching routines
- Brief warm-up and 6 stretches
- Refresher S/F Training conducted quarterly, and then annually
- Accountability was critical to the success of the program. Managers must submit monthly attendance sheets of their staff as part of our Leading Indicators Program and Metrics Tracking. Sign in sheets are uploaded to the cloud for easy and reliable recordkeeping.

I. Results and Metrics

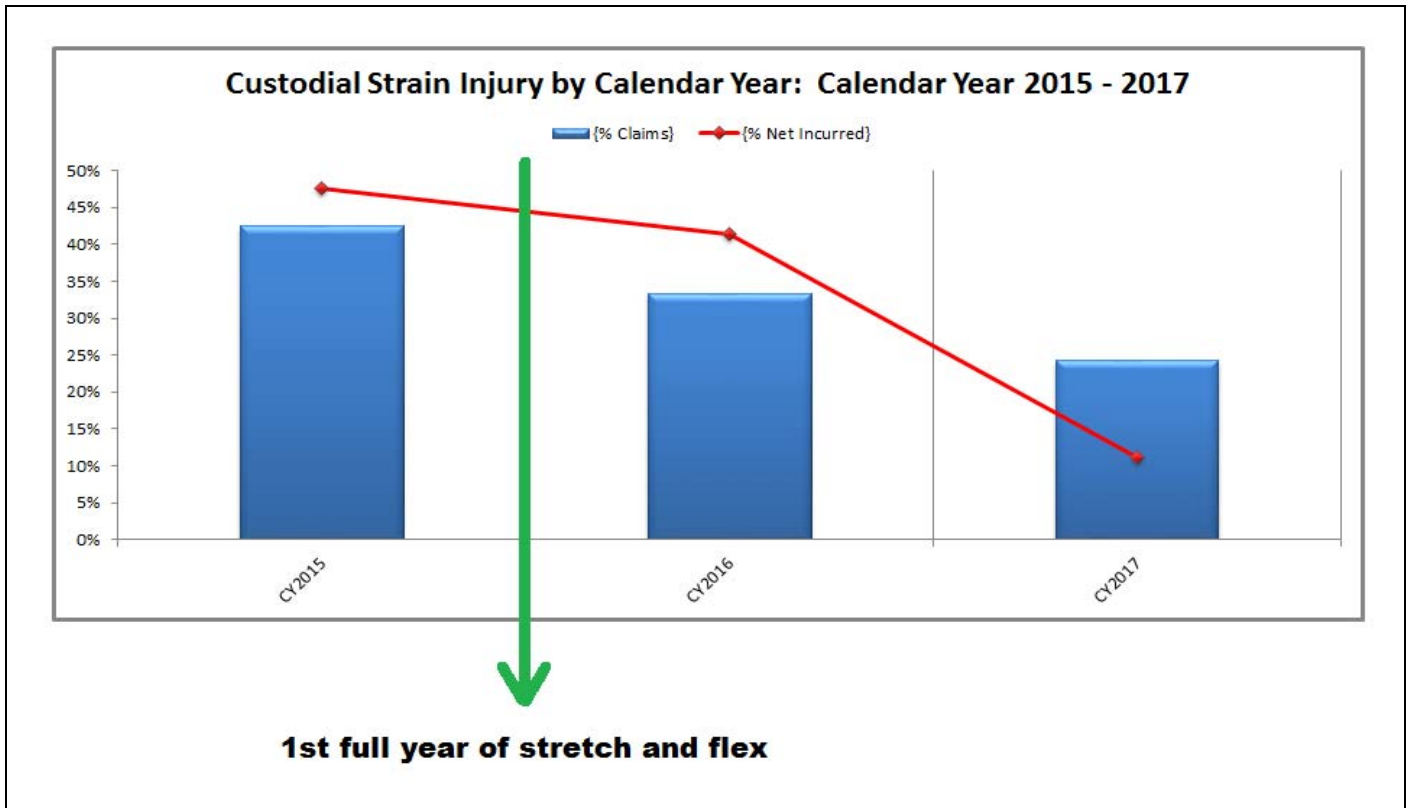
A survey was conducted and completed by participants for effectiveness in 2016. The S/F program participant feedback results are below from a 1 – 5 scale:

Stretch Flex Program Survey Data (All)		Avg. Score	Avg. Score	Avg. Score	Avg. Score
All Locations	Participates	Beneficial to Participant	Wellness & Safety (Focus)	Range of Motion (Flexibility)	Support (Management)
Totals	45	4.4	4.3	4.2	4.5

- **Comments**

- *Maybe if we could do it on our own instead of all the time in the morning*
- *I think it would be better to do after cleaning offices*
- *To stretch as a team each morning*
- *It would be great to have a new set of routines*
- *I think it is a very good program, it can only help in the long run*

The S/F program and other safety efforts have likely aided in decreasing injury claim incidence for the organization as a whole. After the first year of implementing the program, R&DE SH custodial staff experienced an 18.2% reduction in the number of workers’ compensation claims resulting from strain injuries while seeing a 36.5% decrease in net incurred costs (i.e. sum of payments and reserves for indemnity & expense including claim recoveries). It’s important to note, however, based on the natural fluctuations in injury claim incidence and severity data, more data and analysis is evident.



II. Applicability at Other Institutions

While technology has eliminated manual tasks in many industries, custodial duties still require a high degree of manual labor. Workplace stretching is a proven solution. Building a successful stretching program requires an implementation strategy:

- Assessment identifying where injuries occur, what body parts are most frequently injured and analysis of what activities typically result in strains and sprains.
- Analysis of physical job demands
- Development of a customized program
- Establishment of metrics
- Training and education
- Follow up

Lastly, strong senior management engagement towards enhanced workplace safety efforts can aid in decreasing injury claim incidence for an organization as a whole. Establishing proactive safety management systems is key, including but not limited to:

- Employee wellness initiatives
- Incorporating safety into job planning/ scheduling
- Ongoing screening/improvement of work operations
- Improved on-site reinforcement of best work practices