



DSI Work Solutions
Concepts that work. Solutions that last.

Work Solutions Insight

Your work injury management newsletter September 2006

FUNCTIONAL FITNESS FOR DUTY A NATIONAL CONFERENCE IN WORK INJURY Denver Colorado, November 10-11, 2006

The DSI Work Solutions national conference answers the questions from employers, medical providers and case managers....***“how do we know if a worker (or potential worker) is able to do the demands of the job” and what can we do about it if there is not a match”.***

The national array of speakers addressing this issue include: Susan and Dennis Isernhagen, Chad Demulling from Weathershield Manufacturing (windows and doors), Andy Wood of General Mills, Susan Abeln of Strategic Health Alternatives, Russell Green MD, Sharik Peck of Rehab Authority, and functional experts Scott Ege, Ginnie Halling, Curt DeWeese and Libby McCoy.. Other employers will join the discussions along with safety, HR, medical teams and ergonomists. Topics covered will be new methods of early return to work, post offer testing, ergonomics, employer commitment to fitness for duty, the new health number system, delayed recovery, Functional Capacity Assessment, the aging worker, and new methods of loss reduction.

For more information on this dynamic conference, [click here](#).

Guest Editorial

Gee, that’s interesting vs. Git ‘R Done
By Russell Green MD

For nearly twenty years various health care providers, payors, and members of the industrial community have tried to “prevent disease and promote health.” I believe we have carried out these activities in good faith and with a tremendous amount of energy. We have held health fairs and measured untold pounds of adipose tissue, cholesterol levels, blood pressures, bone densities, and blood sugars. We have profiled this and that with our health risk appraisals. We have given flu shots at all hours of the day and night. We have given out T-shirts for walking around the track at the hospital, or the YMCA, or the plant.

Have we had an impact on overall healthcare costs and expenditure? Have we addressed presenteeism in the

workplace? Do our workers benefit by having fewer days spent in the hospital or at home because of less illness or fewer injuries. The literature would suggest that while nearly 90% of workplaces have attempted various disease prevention and health promotion activities that there has been little to show for these efforts.

These efforts, while well intended, have been simply beating around the “health bush.” They have shown that your blood sugar is awfully high and that you ought to see “our endocrinologist.” But, to what purpose? The measurements have confirmed that your weight is pretty high. Do you think that person did not already know that? Individuals wander into the little room they give you to do the “health fair” and wondering why they are here, like they wondered last year. The hospital is hoping to get referrals. The employer is reluctant to let folks off the shop floor, but they also think that a “health fair” must have some value, but what might it be? It’s called going through the motions.

Let us all agree that we are not very healthy. Let us all agree we have to work because we have mortgages to pay and children to feed, or at least a pickup to pay off. Let us also agree that health care is way too complicated to understand and “reform.” Let us all agree that the current approach to having an ambulance at the bottom of the cliff when we break down is not working and is way too expensive.

Let me pose another somewhat pragmatic approach to dealing with healthcare. Let us encourage employers to require that their workers be able to “perform the essentials job functions,” of the positions that they fill. Let us offer them tools that can objectively facilitate that effort.

If testing determines that you are unable to do your job, you may lose that job, unless you step up and improve aspects of your performance. It is up to the owner of health (YOU) and if you do not improve there is consequence. The testing must be representative of your work and it must be fair, but there must also be accountability on the worker’s part.

Efforts towards disease prevention and health promotion have failed consistently because they are simply informational. (Gee, that’s interesting.)

By testing individuals in the workplace and holding them to objective functional standards, it is my view that workers’ health will improve if for no other reason than necessity. (Git ‘R Done.)

Join an interactive work health and disability roundtable

Many professionals are finding current research and a lively exchange of ideas about work disability through the Work Fitness and Disability Roundtable. Moderator, Jennifer Christian, MD, is a positive influence in bringing together many disciplines. The interactive roundtable she has created focuses on preventing and minimizing work injury and illness through promotion of functional outcomes.

The roundtable now has 900 members and is open to interested professionals including physicians, healthcare providers, case managers, safety and risk managers, return to work professionals, safety, HR, vocational counselors and attorneys.

The WFD roundtable is sponsored by Webility Corporation whose mission is positive change in disability benefits and workers’ compensations systems. Apply by going to www.webility.md and indicating the roundtable.

Download Articles from DSI Website

DSI Work Solutions inc has made available articles with content that are of interest to professionals interested in work injury prevention and management. Currently on the website are three articles written by Susan Isernhagen. Of interest to many employers, case managers and health care providers is the one recently published in the Journal of Workers Compensation. [Download PDF here.](#)

If readers of the website have articles to share, contact Susan Isernhagen at sisernhagen@dsiworksolutions.com to inquire about placement on the website.

DSI Ergo Tip

By Scott Ege MS PT

An aerospace company expressed concern regarding ergonomic stressors contributing to injuries in a testing and calibration area. A review of OSHA records revealed a history of back and shoulder recordable injuries, including lost time. An overhead trolley system was recently implemented by the employer to transport 50 lb motors to various test stands throughout the entire department, which significantly reduced the lower back stressors. However, reports of shoulder discomfort while maneuvering the motors along the trolley system were shared by several employees during informal interviews by the onsite ergonomic consultant. The trolley system is activated by applying a downward pull force using a plastic handle that attached to a ¼" diameter rope. The rope is threaded over a two-inch pulley and attached to a spring-loaded mechanism that allowed the employee to move the motors to/from their test stands (similar to a railroad track switch mechanism). There are over 100 rope/pulley mechanisms positioned every 10' along the trolley system.

Question: Where do you start with the analysis process?

Answer: You need to collect information (data) regarding the positions, forces, and loads required for several of the areas along trolley system. Speaking with 2-3 employees familiar with the job tasks should be included in the analysis process. Discuss their concerns and seek input from them regarding possible solutions. A basic analysis of the ropes, spring mechanisms, forces to move the motors, and forces to engage the spring should be conducted on several different rope/pulley mechanisms.

Question: What information would be included in the analysis?

Answer: Measurements of the positions, forces, and loads. Job analysis tools such as a tape measure, push/pull force gauge, grip dynamometer, and digital camera/video could all be used for the analysis.

Question: What specifically should I look for?

Answer: Simply put, **get data associated with each job function**. In this case, the analysis revealed the handles varied in height from 68" to 84", which required the operator to use > 120° shoulder flexion. The downward pull forces (measured via dynamometer) measured from 4 to 60 lbs. Some of the ropes were frayed as they passed through the pulleys, indicating significant wear. A few of the pulleys were completely sheared off, resulting in downward pull forces in excess of 60 lbs (overhead). Interviews with the employees revealed that minimal regularly scheduled maintenance was performed on the trolley system.

Question: What recommendations were made based on this data?

Answer: Recommendations were made and applied throughout the entire trolley system to standardize the length of the ropes and height of the handles to 68". This solution reduced shoulder flexion motions to below 90° for all employees working along the trolley line. The handles were all clearly numbered, which allowed employees to easily identify and report broken rope/pulley mechanisms to maintenance - - resulting in more timely repairs and eliminating downward pull forces to 15 lbs or less. Several of the springs were also replaced with lighter-tension springs, further reducing downward pull forces to less than 5 lbs. A regular maintenance and lubrication schedule of the trolley system was also established, reducing additional forces associated with transporting the motors.

Question: How long did it take the employer to implement the recommendations?

Answer: All these recommendations were implemented by the employer within 30 days of the Analysis.

Question: How much did all this cost the employer? Do you have a total cost savings?

Answer: The total cost of implementing these solutions was under \$1,500, including parts, labor, and consultation fees. The employer has reported incurring no further back or shoulder injuries since implementing the solutions. Analysis of prior injuries related to this task over the past three years revealed a cost of \$24,000. This represents a 6:1 ROI (return on investment) for the employer.

Scott Ege, PT, MS

Ege WorkSmart Solutions, PC

Why Workers do or do not practice new ideas.

By Sue Isernhagen

Do workers like attending back school?

When ergonomic ideas are presented, are all workers on board?

What makes a good safety presentation great?

These are the questions we all have faced whether we are the presenters, the workers, the supervisors, or a safety manager.

There are 3 main issues the presenter has to address:

1. The ideas have to be presented ***in an entertaining way***
2. Workers must (want to) participate ***and contribute their own ideas*** (which often have much more validity than yours)
3. The presenter should realize that all workers (audience) won't make a change until they reach the fifth step of **ATTAC** learning curve

Briefly: here are the ideas that work for successful presenters:

Be entertaining: One must know the audience. Humor goes a long way, but only if you are on the wavelength of the audience. Try a few humorisms that seem to be targeted to the group. Go with the humor that seems to click. Lightheartedness drops the defense against learning. Who knows, the workers might even enjoy this talk.

Let the worker contribute: If this is a presentation that is not at the actual jobsite, then use slides and the lingo of the group. Ask them what they think would work for this particular topic. When a group member is on to something, go with it. The answers the group members develop will be used and remembered long after your list. But they also can get engaged in interacting with your ideas. They must make the ideas their own!

ATTAC change curve:

This is a remake of some good learning theory (even this writer can learn new ideas!!)

People are receptive to making changes depending on how far they are along the change curve. Do you ever wonder why some people will come away from a presentation/interaction and be able to make change, while others just don't want to learn what you taught them about how they could change (healthy lifestyles, better body mechanics, improved ergonomic technique or work methods)

The five stages of learning are:

Awareness of the issue: Remember some workers may not even know the change is possible or desirable

Thoughtfulness of the importance of change is next. They have to start considering what you said

Taking the first step is the next big move. Often there is hesitation in change of work behaviors, health patterns like exercise or eating, or safer work mechanics. The first step is taken often in private and not announcing to the world that they are "trying".

Action taken is rewarded. Whether it is an internal recognition that doing the different pattern is positive, or if it is small rewards from coworkers or supervisors, the feeling of moving in a smart direction keeps them going.

Commitment to the idea is next. This is where we all get rewarded for our efforts...someone actually makes a change, we become aware of it, and the positives of this new action affects us, the worker, coworkers and supervisors. It is here that the new ideas take hold. Commitment is also infectious. It is easier to stay committed to a new practice when others are moving in the same direction.

So, in a nutshell, it is not so difficult to be an agent of new ideas, interactions and changes. The enjoyment we receive from helping a group comes from the group liking the new ideas and getting positive results. The followup to an education/change program is critical so we can see what impact it made, where we can do better, and whether we should continue to help the group move through the full change pattern.

If supervisors and employers understand that change takes time, and if we can move a group along the ATTAC change pattern one level at a time (knowing workers will definitely be at different stages at different times) then

success is more likely with the repetition. When a few workers buy-in and are at the commitment stage, the change takes on a life of its own. But, we must remember, that new employees, new supervisors, and just the passage of time can make the change pattern need refreshing or even repeating. How long did it take you to learn to swim? Repetition and mentoring are the key. And, if along the way, the workers bring new ideas to you.....the benefit has doubled and they are now the teachers!!

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