

The Productive Workplace



Pelletier
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Pelletier & Associates Presents

“Best Practices” at UC Risk Summit

Diana Pelletier

Continuing our objective of bringing innovative solutions to the safety community at large, Pelletier & Associates was invited to speak at the University of California Risk Summit held at the Hyatt Regency San Francisco March 3-5, 2008. Based on the work we have conducted at the University of California, Irvine, Environmental Health and Safety Injury Prevention Manager Sandra Huang Conrad and EH&S Director Marc Gomez requested that Pelletier & Associates present on the topic of Best Practices in Ergonomics Program Management. Due to the significant positive impact the ergonomics program at UCI has had on employee health and wellness, this topic was felt to be beneficial to the safety and risk associates gathered for the summit. Representatives from all 18 UC campuses throughout the state were present, as well as representatives from other UC locations and medical center locations.

Alongside topics in workers' compensation case management, incident reports and safety related issues,

Diana Pelletier spoke on the methods that have been found to be most beneficial to organizations looking to streamline their ergonomic offerings and expand the reach of their ergonomics programs.

The focus of this presentation was on reducing administrative workload in the ergonomics process and gathering metrics to track and support ongoing ergonomics efforts. Ms. Pelletier presented a look at Pelletier & Associates proprietary ergonomics tracking tool, which allows users to gather relevant data and uses the information to determine trending, where to allocate resources for the most impact and ROI for ergonomics programs. These “best practices” make for a comprehensive program and Pelletier & Associates was happy to share this information with the UC community.



Determining Ergonomic

Dan Pelletier

Program Components

In the first part of this series, *Policy and Human Dynamics*, I asked the question, “What pain is the organization feeling?” When asked in the context of ergonomics, the answer(s) to this question will likely represent the greatest opportunity to affect a positive change with regard to the health and productivity of your workforce. These answers are the low hanging fruit that have *already* garnered top management support, even if you are not aware of it.

Determining an organization's ergonomic pain is really not that difficult. It can be revealed in a number of ways:

- An increase workers' compensation filings for similar injuries
- Funding for hard safety programs increasing at a rate faster than an organization's overall revenue growth. This is often accompanied by a corresponding decrease in funding for ergonomic programs.
- High turnover or a decrease in productivity in highly repetitive, physical, or sedentary positions
- The purchase of ineffective ergonomic equipment
- The *lack* of a periodic ergonomic program review utilizing hard data to support the efficacy of the program and its relevance with regard to achieving ergonomic policy and objectives

Focusing on solutions that target such issues will bring about the greatest degree of change for the least amount of funding and effort. Typical for program development, ergonomic programs will have specific initiative-related start up costs, then on-going costs to support newly instituted program components. By the time you are seeking funding for on-going costs, new initiatives should be well on the path to demonstrably paying for themselves. Then, identify the next piece of low hanging fruit and repeat the process. Approaching ergonomics in this manner assures that you will be successful in slowly, but methodically broadening your program's outreach. More importantly, it assures that your program will be supported for many years to come because each program component delivers measurable value to the overall process.

Having beaten the drum for expanding your program, it is important to note that ergonomic programs should not be allowed to evolve into an ever expanding bureaucracy. Rather, they should be finely tuned and continually adapting to changing work environments. Highly developed ergonomic programs can benefit from periodic program review that identifies the following for each program component:

- In what way does it achieve a stated policy objective?
- In what way does it measure and demonstrate that achievement?
- What are the problems in executing this program component, and does the cost and effort justify its contribution to the overall value proposition? In other words, are unsustainable ergonomic practices in effect?
- Is executing one program component taking resource away from executing another? Realistically speaking, does funding dictate that only the more valuable of the two components should be carried forward?
- Have training and ergonomic assessment kept pace with changing work conditions?
- Are purchasing and participation incentives in line with current ergonomic policy objectives?

Possible Program Components

What follows are the most typical program components we have encountered in large scale, sustainable ergonomic programs. In determining which of these components represent the lowest hanging fruit for your organization, keep in mind the following:

- *Cost* - both start up and on going. Over time, cost should lower and stabilize to a justifiable and sustainable level.
- *Staffing* - be sure your staff recognizes the value of any new initiative, or they will not voluntarily release other unsustainable responsibilities.
- *Public relations* - what will it take to make people aware of the new initiative?
- *Data gathering* - what data do you need to gather to demonstrate effectiveness, and how will that data be gathered?
- *Metrics and reporting* - how, to whom, and when will you report the results of this initiative. If you can't or aren't planning for this, you may want to revisit why you are considering a particular initiative.



Training

Effective ergonomic programs are as much about people as they are about processes and products, if not more so. It is about how people think, perceive, and react to risk laden situations. Adopting an organizational mindset that promotes ergonomic awareness is critical to establishing an effective ergonomic program. Ergonomic training is the keystone to seeding this philosophy. Without this awareness, few other initiatives can succeed. As such, ergonomic training is the single most important program component to put into place. Training is the most effective tool in your tool belt for promoting awareness, reducing injuries, and broadening the outreach of your ergonomic program. The mere tracking and

correlation of training attendance to injury reduction (in all of its related forms) over time can be a very powerful program justification.

Ergonomic training occurs in a variety of forms and modes. It can be conducted either in person or online. The former is more effective in the long run, but more expensive to reach the same number of people. Due to the lack of interactivity, the latter is less effective, but can disseminate information to more people, more quickly, and more cost effectively. Consider a mixed mode approach, focusing your in person trainings at the highest risk or most specialized job functions.

Ergonomic training can occur in three general levels: Basic Employee Awareness, Manager/Supervisor training, and Train-the-Facilitator. Manager/Supervisor training is an adjunctive training that it will allow your front line managers to reinforce the principles taught to employees during Basic Awareness training. More evolved programs, or programs that must span thousands of employees can implement a Train-the-Facilitator approach in which key designated people in your organization are trained in the performance of basic in-person ergonomic evaluations. This can be especially effective for organizations with large numbers of seated workstations.



Ergonomic Evaluations

Ergonomic evaluation, or risk assessment, is the second “must have” for any ergonomic program. Evaluations are an organization’s front line offense in determining and mitigating risk exposure. While necessary, ergonomic evaluations will spawn numerous activities. It is important that you understand how these activities will impact your staffing, dollars, and interaction with other departments in your organization.

Like training, ergonomic evaluations can occur in different modes, and with varying degrees of complexity. Several reputable online risk assessment tools are available that can at least expose risk trends.

While effective in reaching large numbers of people at a relatively low per-evaluation cost, they are almost totally reliant on being able to obtain an employee response and in that employee understanding what is being asked of them. A huge benefit to these programs is that they generally have extensive data tracking capabilities. I have seen mixed results with these programs.

The keys to success when using an online assessment program are the following:

- Choosing a vendor that is willing to work closely with your organization to tailor the program to your needs
- Clearly understand your ergonomic process so that administrative burden can be kept to a minimum. Focus primarily on the reports that help to drive your process.
- Clearly understand the objectives of your ergonomic policy so that you can quickly identify, from the myriad of available reports, those that will be able to demonstrate the achievement of your goals. Your vendor should be able to bundle and streamline the delivery of these reports.

Ergonomic evaluations can, and should, also occur via in person assessment. If your organization lacks the funding for an online assessment tool, this will be your only choice. If your organization has an online assessment tool, in person evaluations can be used as a second line offense in mitigating high risk situations, or as a first line offense for highly industrial, physical, or other non-seated workstation job functions.

The key to success when conducting in person assessments is in keeping your facilitators doing what they do best, evaluating:

- Use a website to help automate the request and scheduling functions
- Pair those scheduling functions with routing reports for your facilitators. Make it easy for them to know when and where they need to be.
- Use email to gather at least some initial and follow-up data

- Be sure to incorporate data gathering into each visit by a facilitator. Then, utilize administrative personnel for data entry, not your facilitators.
- Use automation tools to streamline and standardize the delivery of assessment reports.
- Use automation tools to help manage product procurement activities

Other Program Components and Practices that Support your Ergonomic Objectives



Ergonomic Website – Establish a website as a means to distribute information to your employees and evaluators. Allow for training and evaluation requests. Publish your ergonomic policy and objectives, and standardized ergonomic products. Once established, there is no end to the benefits that can be derived.

Standardized Product Lists – Don't make your facilitators and purchasing agents research product for each evaluation. Conduct product research up front, establish relationships with vendors, and publish your list... on your website if possible.

Demo Lab – Establish a product demo lab where your employees and facilitators can go to fit and tryout ergonomic equipment. If your organization is large and has established relationships with vendors, many of them will be more than happy to stock the lab with commonly used items, including some large ticket items like keyboard trays, monitor arms, and chairs.

Establish procurement reports and tracking – The use of ergonomic products is almost a given these days. Establish a means to easily report and track product usage and procurement activity, especially the receipt and distribution of product. Not knowing what was recommended, ordered, received, or installed will significantly increase administrative workload.

Follow Up – Establish follow-up procedures for your ergonomic evaluations. Be sure these procedures include the gathering of data. No follow up, no metrics. No metrics, no program justification. It's that simple.

Electronic Forms – Use electronic forms to gather data. They will greatly extend the reach and effectiveness of your facilitators.

Participation and Purchasing Incentives – These can be very effective in helping to close the evaluation and training cycles. Be prepared to track the availability and use of incentives.



Ergo Fairs and Newsletters – Both of these are relatively simple to do and are great at promoting awareness. If your organization is proactive about ergonomics and habitually follows through on assessment recommendations, you will find significant employee interest in an ergo fair. Ergo fairs can also be incorporated into company health fairs. Again, leverage your vendor's participation where appropriate.

Lessons Learned

At any point in the evolution of your ergonomic program, go after your organization's most painful ergonomic issues. For a variety of reasons, they are the easiest to correct, will demonstrate the most value, and they are foundational for more complex initiatives. Take on only one initiative at a time and master it before you move on to the next.

Anytime you are faced with the choice of increasing the complexity of a program component versus increasing its outreach, choose outreach. Affect as many employees as possible. Keep programs simple and be sure to follow through. Do not increase complexity until you have mastered the art of follow through. Taken in reverse, your ergonomic program will be severely compromised in its effectiveness and support.

ROI, ROI, ROI. Design programs that support it. Be sure to demonstrate it. Don't take on initiatives that feel good, but can't demonstrate value.

In my next article, I will discuss specific techniques that can be used to gather and track data, as well as to streamline and standardize your evaluation process.

Past and future newsletters may be found at <http://www.pelletierinc.com/newsletter.html>

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Ergo-on-the-Go: Tips to use Mobile Technology Without Exposing Yourself to Ergonomic Risk Factors

Jaulla Saatchi

Basic ergonomic awareness should be practiced wherever and whenever a mobile device is utilized. The primary focus should be on maintaining neutral posture in every situation and staying within the body's natural range of motion while recognizing its limitations. Risk factors that involve the mobile worker include duration, repetition, awkward postures, excessive force and pressure, and environmental factors.



Laptops

Anytime a laptop is being used, there must be a compromise between neck and hand/wrist/arm comfort. To accommodate neutral neck posture, the top third of the laptop screen must be at or slightly below eyelevel.

For appropriate hand and

wrist posture, the keys should be placed around elbow level. The design of laptops presents issues that result in a compromise between proper neck and arm postures. Occasional and frequent laptop users need different solutions (see Part II of Ergo-on-the-Go for more information). Risk Factors: Poor sitting and typing posture, neck flexion, over reaching, and contact stress.

Solutions:

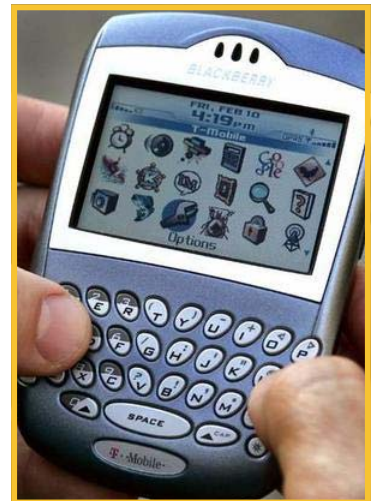
- If possible, a laptop stand, docking station or laptop riser should be used to elevate the laptop screen into the user's line of vision. This will help avoid neck flexion and encourage neutral head and neck posture while viewing the screen.
- External mice and keyboards are recommended to reduce reaching, leaning in and shrugged shoulder posture. If a stand and external input devices cannot be implemented, the laptop should be used only for short periods to avoid the risk of prolonged repetitive and awkward postures.

PDA Devices - "Blackberries", "Treas" and "Palm Pilots"

Risk Factors: Repetitive motions, awkward neck postures, dangerous use on the road, and awkward use of the fingers, wrist and thumb

Solutions:

- Users should always be aware of their head and neck posture.
- The stylus of the device should be used. This will reduce contorted hand and finger gestures.
- If possible, use two hands.



- The use of shortcuts should be considered to minimize repetitive movements.
- Users should avoid scrolling excessively and exclusively with the thumb.
- To maximize visibility, keep the screen clean and free of scratches.
- Although it is fine to check email on these devices, try and utilize a correct computer setup with full keyboard to type responses to messages.



Cell Phones

With the introduction of laws that prohibit hand held cell phone usage while driving, many companies also are beginning to implement policies that take safe cell phone use into account. **Do not let the phone act as a distraction endangering your life and the**

lives of others on the road.

Risk Factors: Dangerous use on the road, awkward head and neck postures, shrugged shoulder posture, prolonged elbow

flexion.

Solutions:

- First and foremost, it is important to consider safe cell phone practices while in the car and on the go. It is imperative that the main focus remains on driving and not manipulating the cell phone device while driving.
- Hands free headsets should be used. Cell phone usage with hands free headsets is still allowed under most laws in America.
- When headsets are used for prolonged periods, it is important to switch ears as not to cause damage to the eardrum.
- When dialing or text messaging, use both hands.
- Use voice dialing to help reduce finger movements.



Refer to the next section in this series for more information pertaining to the use of technology on the go.

In the Spotlight:

Microsoft Natural Ergonomic Keyboard 7000

Jaulla Saatchi

Microsoft introduces their most innovative solution in ergonomic product design with the introduction of the Natural Ergonomic Desktop 7000. The desktop includes a wireless keyboard and mouse ergonomically designed to reduce the strain on the hands and wrists while typing and mousing. Building on their breakthroughs in ergonomics and technology, Microsoft unveils their most advanced product offering yet.

The Natural Ergonomic Desktop 7000 takes the advancement of wireless technology and combines it with the ergonomic design of the bestselling wired keyboard, the Natural Keyboard 4000 to present the Natural Desktop 7000. The keyboard has a split design to mimic the natural positioning of the hands and forearms and encourage neutral arm and wrist posture while keying. The keys of the keyboard are angled as to promote neutral hand, wrist and forearm positioning while typing. The keyboard also includes a built-in palm rest made of plush, soft touch material. Other features of the keyboard include an intuitive Zoom feature, an improved number pad, Internet and email hot keys, and "My Favorites" hot keys. These features were specifically designed to reduce fine wrist manipulations and provide lasting comfort during prolonged computer use.



In addition to the innovative keyboard features, the design of the mouse included with the Natural Ergonomic Desktop 7000 stimulates productivity by alleviating the awkward hand and wrist postures incurred during prolonged standard mouse usage. The contoured shape provides support and better fits the natural shape of the hand. The mouse offers other features including High Definition Laser Technology, 4-Way Scrolling, an Instant Viewer, Magnifier, Battery Indicator and five customizable buttons. Overall, the Natural Ergonomic Desktop 7000 provides a comfortable, time-saving alternative to the standard, wired keyboard and mouse.