

RETURN ON INVESTMENT FROM ERGONOMICS

PRO-ACTIVE ERGONOMICS SUPPORTS WELLNESS
PROGRAMS AND PROVIDES IMPROVED ROI



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Introduction



Bill Pace
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When you think about creating sustainable cost savings within your own organization, does the application of ergonomics immediately come to mind? Probably not.

What issues are the most discussed initiatives in organizations today that can be addressed by Health and Safety, wellness or pro-active ergonomics?

- Absenteeism
- Turn-over or attrition
- Productivity
- Healthcare costs

How can you help? What department generally makes the decisions for programs that impact these challenges? I will venture out on a limb and say that in most organizations it is not the health and safety people.

Of course, we need to better understand how these factors are impacting your organization. What measures does your organization currently use? How can they be used to help you?

What if I tell you that an employee in pain is less productive, takes more sick days and tends to seek relief through a medical practitioner, or by getting a new job? We know employees in discomfort take frequent breaks to seek relief. We know these employees seek medical help. When do they usually see a medical professional? During the day. How is their morale compared to an employee without discomfort? Do you think your customers notice which one has a smile and a bit more patience?

I've asked a lot of questions here. And I haven't answered them all. The big question must be: what is discomfort and risk currently costing your organization? Keith Osborne is here to help you find ways to measure these factors and find out the impact on the bottom line. Let's simply slow down and take a more detailed look into how you can measure your current status and use the measure to provide the best solutions.

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About the author



Keith Osborne
Ergonomist
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Keith Osborne has been active in the fields of ergonomics and wellness for several years and is currently the ergonomist for Seattle City Light where he is responsible for building a comprehensive office and industrial ergonomics program.

Keith is a veteran of the US Army where he had a distinguished career spanning 25 years. Keith served in several theatres of operation in many different capacities. He was the lead in developing a security checkpoint for troops deploying to the Balkans in the mid-90s and his checkpoint design is still used by NATO and UN forces today.

Among his many awards and decorations is the DeFleury Medal given for career achievement as an army engineer. Keith's previous ergonomics work was primarily at Honeywell Technology Solutions in Colorado Springs, Colorado where he built an integrated health and wellness program that garnered numerous awards and saved Honeywell more than \$27M in potential costs from 2009-2014. His ergonomics and wellness programs were cited as OSHA and Honeywell Best Practices during his tenure and he was awarded The HSE President's Award in 2010 and Honeywell's 2014 Engineering and Innovation Award. He was also nominated for the 2012 OSHA Innovation Award for his work in those fields.

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Background

Why are organizations interested in return on investment? The logical answer to this is to ensure that any money spent is money well spent, with the ultimate goal to make that organization more effective, more productive and more profitable. Ergonomics can drive this, but equally important, it can also drive down injury rates, absenteeism, presenteeism, empower employee ownership, and elevate morale. This impact can be seen throughout an organization because, after all, the most important part of an organization is its employees.

Ergonomics can also have an impact on the organization's ability to bring in new talent by showing those potential new hires the depth of the organization's desire to improve their employee's quality of life while at work.

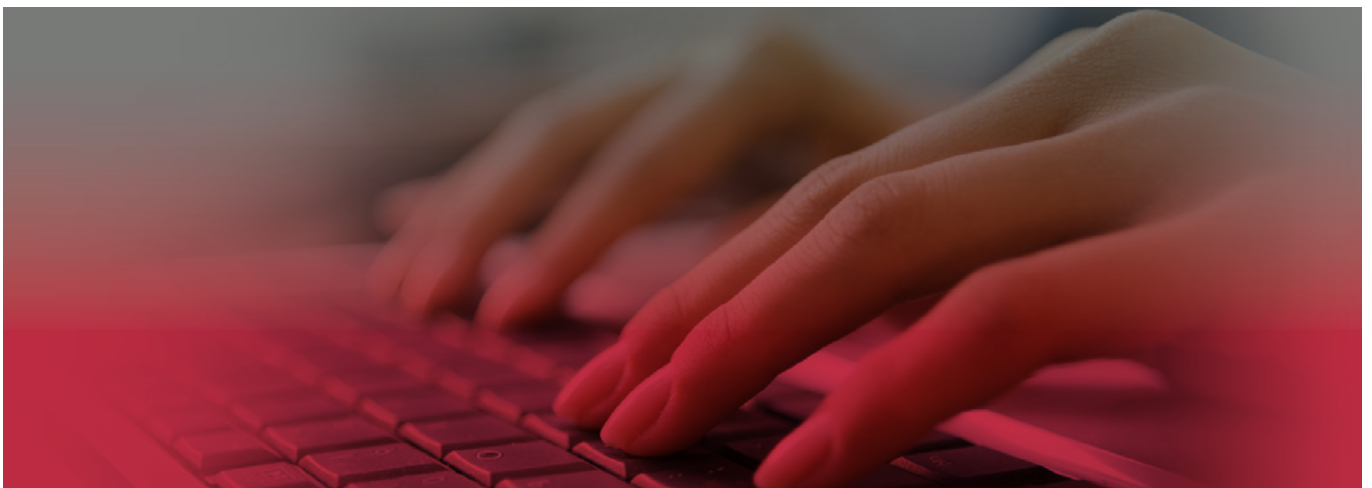
Protecting, developing and continuously improving the effectiveness of that asset is the best-case scenario for all stakeholders. Ergonomics, when executed proactively and in a multi-faceted way can do all this and more. Ergonomics is an integral part of every efficient workplace because it recognizes a person's capabilities in relationship to each specific job task. It helps an organization understand the physical attributes of their employees and refine work processes to take advantage of those attributes.

For an ergonomics process to be successful, the company's management must be fully committed to integrating ergonomics into the workings of the organization. Management must also understand that ergonomics in itself is a process just like safety, maintenance, and production and must be afforded the same attention and overseeing.

Human resources, facilities, safety and engineering departments all have a stake as well. HR can use the process to help with return to work and alternative work arrangements by engaging the ergonomist. A great process is also a fantastic selling tool for talent managers within HR to tout what the company can do for the individual employee once they come on board.

Facilities, in working with the recommendations of the ergonomist, can help design and reconfigure workspaces to better accommodate the needs of the employees they support. They can install equipment that is not only functional and efficient but adjustable to accommodate several different body postures and a range of body types which promotes better postures and lower discomfort levels.

Safety and engineering have a stake to ensure that ergonomics is addressed early in a design process. This means making sure the recommendations are safe and add value to the entire project. Ergonomics is about process improvement throughout the organization and should enhance these disciplines, never sacrifice them.



Returns on investment in ergonomics

Ideally, a sound ergonomics program has many parts to it. Use of online risk management/assessment tools can help determine risk levels and allow for prioritization of work. They can also help an organization become more proactive by allowing the program administrator to determine root cause and effect solutions before a case becomes a recordable injury, or worker's compensation claim.

The tool supplements the ergonomist's ability to prioritize work and focus on those who are the highest risk. It allows the ergonomist to be more effective, spending the most time with the highest of risks. When developed properly, the online assessment tool also becomes a training tool with embedded tips and training to assist those who although show some level of risk, can self-correct many of their issues through administrative solutions (training, reinforcement etc.). This is a key component because it gives employees ownership in their processes.

What follows is a focused review of two case studies that show how a proactive office ergonomics program was able to impact two different companies, one that I previously worked for and one that I currently work for. Both had (one still is a work in progress) elevated injury rates with a good percentage being ergonomics related. Through the development of these programs, injury rates were lowered along with compensation claims related to workplace musculoskeletal disorders (WMSDs). In the first case, WMSDs were eliminated completely and the company has not had an ergonomic related injury in five years (2010-2014). The second case (Oct 2014-Jun 2015) there are the beginnings of positive trends based on initial data that show a reduction in soft tissue injuries related to ergonomic issues.

Case study one

Case one is work completed (2003-2014) while I was working at Honeywell in Colorado Springs, Colorado. It is an 800-person facility whose primary mission is aerospace defense contract work. From 2003-2007 there was no formal process to address ergonomic injuries. In fact, there was no program at all and this was evident by the injury rate. 2003-2005 saw an injury rate of seven to ten WMSDs per month with 80 per cent of those injuries requiring days away from work. Each of these injuries resulted in lowered productivity and a reshuffling, to varying degrees, of the work that needed to be completed.



Some improvement was seen 2006-2008 when the organization decided to become a VPP Star site. One of the issues brought up by OSHA was the lack of a documented ergonomics process. That report spurred change and a program began. Progress began slowly, it was still a one-on-one assessment-driven process with the lone ergonomist completing more than 500 assessments annually to accommodate the staff. Injury rates were declining, and the program moved forward but until an online tool and ergonomics lab were added (2010- 2011), a totally proactive process it was not. Once these were implemented the statistics bear out that a multi-faceted approach to ergonomic risk mitigation

is the best approach to any ergonomics process. There is a wellness aspect to all of this, but I wanted to focus purely on the ergonomic process impact. The process is a Honeywell and OSHA Best Practice.

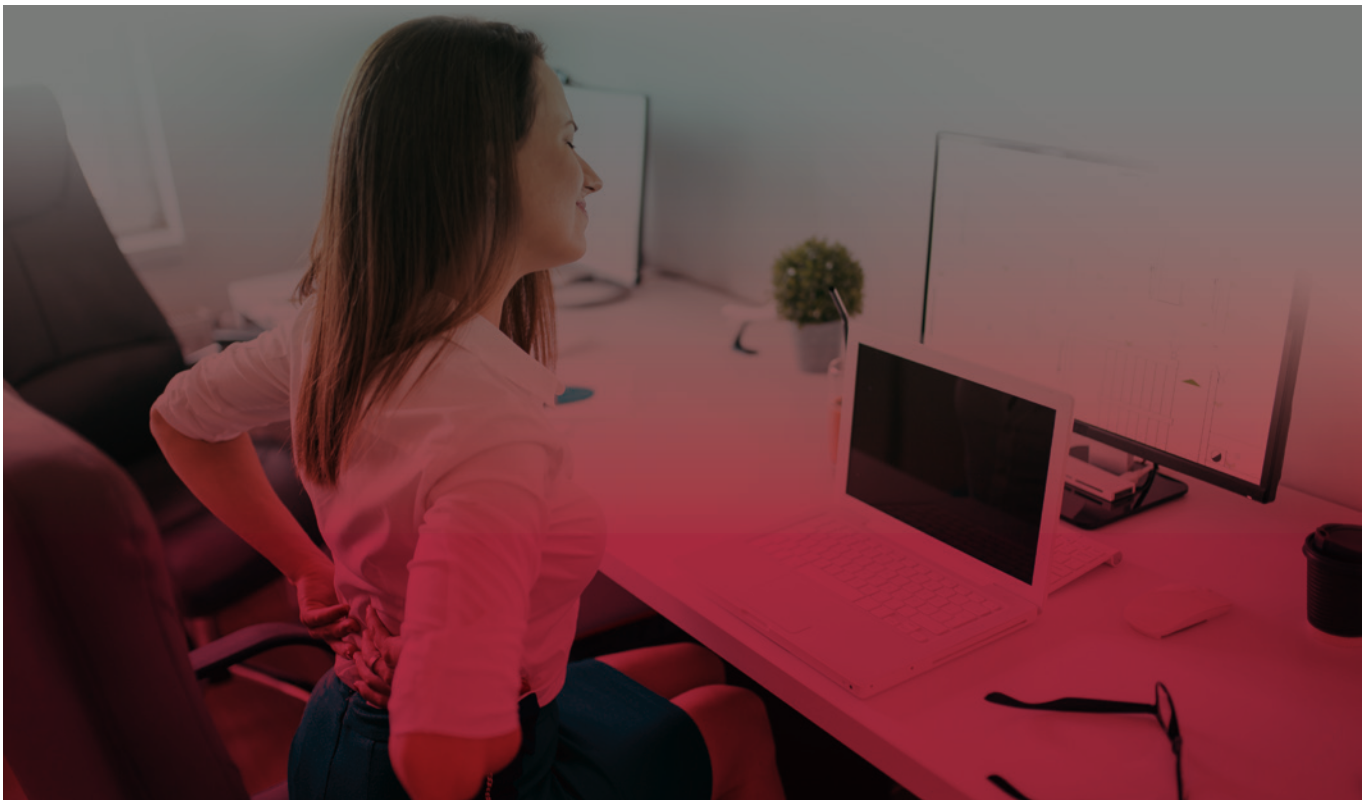
With a fully integrated process (2011- 2014) here is what was accomplished:

- 2010 to 2014 – zero WMSDs
- Zero WMSD-related compensation costs
- Zero high-risk employees
- Ratio of low to medium risk employees – 4:1
- Organizational risk score (2011-2014) – increased

70 per cent (476/142)

- Reduction in lost time per day (2011-2014) – 37.5 per cent (48/30 minutes)
- Contract performance rose 12 per cent annually (on-time work authorization completion and overall customer satisfaction)
- \$25.95M proactively saved in potential compensation claims stemming from WMSDs
- 5 per cent reduction in absenteeism (days away rate)
- \$736K in improved productivity for just 2013 alone
- Return on investment of 135.5

Program enhancement at Honeywell using a multi-faceted approach with robust risk management tools and integrated training enabled the ergonomics program to be more effective for the company and the process owner (the ergonomist). It provided a goal based approach for employees from both an ergonomics and wellness aspect by letting employees self-correct through training and visual reinforcement. It allowed the organization to focus on high risk employees to mitigate and eliminate those root causes that cause discomfort, awkward postures and disabilities. But is it repeatable? Is this an approach that can be effective in more than one instance? The answer (so far) is yes.



Case study two

Case two is a work still in progress but is beginning to show the process is effective and repeatable. Seattle City Light in Seattle Washington is a public utility company where I currently work. It has about 1900 employees with approximately 900 office-based employees (some do limited field work). The remaining are line workers, meter techs, construction (multiple fields), warehouse, and shipping workers who have a limited footprint in the office environment. Again, the focus of this case study article (an overall case study will be presented at NECE 2015) will be application of what was learned and used at Honeywell and what results came of that effort to date.

Unlike Honeywell, Seattle City Light has several locations throughout the state of Washington where there is a significant office presence, so an online risk management tool was vital. The initial effort here was to revive what had become a dormant office ergonomics process and develop a robust field ergonomics process. Again, the focus here is the office portion. There was no documented process in place and nowhere for employees to turn for help. There also was no formal training process for employees to help them understand what they needed to do to improve their overall comfort. What this organization did have from the beginning (that Honeywell did not initially) was management support for program development and the budget to build it.

To understand the need for a quick building of the program one only had to look at the statistics. Between 2010 and 2014 the company averaged more than 100 recordable injuries annually. Of those, close to 20 percent were soft tissue injuries that could be attributable to ergonomic deficiencies. So, to develop an efficient, proactive process you could have a huge impact on not only the morale and comfort of the employees, but also on decreasing significantly the compensation costs and injury rates of the organization.

- Organizational Risk Score – 521
- Percentage of high risk employees – 39
- Minutes in lost productivity – 48
- Average annual loss of productivity per employee – \$7,890.00

After developing an ergonomics process standard (pending final publication) a prioritization of work was developed, and efforts started to identify and train the high-risk employees. We sent out weekly safety tips as well as training through the tool, which improved the overall risk score of the organization. Corrective actions were initiated within several days, compared to the weeks it took before the tool and process was available. The tool also helped to streamline the sit/stand accommodation process, making it easier to determine implementation.



The question now is, has this effort begun to bear fruit? Short answer is yes. The statistics so far will show that a multi-faceted approach again has begun to make a significant impact on the overall well-being of the organization but even more importantly, has given employees somewhere to go to get answers and be more comfortable and productive in their workstations.

- 37 high risk cases worked have shown significant improvement
- Organizational Risk Score – 350 (32.8 percent improvement)
- 166.6 per cent return on investment to date n Improvement in productivity loss – \$7,890.00/\$5,961.00 (24.4 percent)
- Minutes lost in productivity – 48/36 (20.8 percent)

The online tool has also encouraged employees who are located at locations other than the headquarters building to become actively involved in the process, which has helped foster a feeling of inclusiveness.

To be a proactive organization, the focus needs to be on leading indicators not lagging (good for a historical

perspective such as OSHA 300 Logs).

Good leading indicators are:

- Percentage of low/medium risk workstations
- Percentage of workstations identified as at risk
- Numbers of workstations/tools/equipment/ processes assessed for risk
- Ergonomic opportunities identified/assessed/ corrected
- Proactive risk savings identified as compensation avoidance
- Regular audits

Developing a proactive process begins with a well-rounded, multifaceted approach using a robust online risk management tool that supports proactive risk mitigation through aggressive case management of high-risk employees from both an engineering and administrative corrective action effort. The metrics you develop will become the basis for process improvement and developing your program from one that sustains to one that changes a company's culture for the better.



Summary

There needs to be a fully vested management team for any ergonomics process to be successful. To be able to get that buy-in you as the champion for the process will need to build and maintain metrics that show the effectiveness of that process. Metrics that are both leading and lagging and that speak to productivity improvement, employee morale and efficiencies and a sound return on investment.

The most effective processes do this with a measurable, multi-faceted approach that includes online risk management tools, effective one-on-one assessment processes and the incorporation of other initiatives that can support your continuous improvement goals such as wellness.

Protecting, developing, and continuously improving the effectiveness of that asset is the best-case scenario for all stakeholders. Ergonomics, when executed proactively and in a multi-faceted way can do all this and more. Ergonomics is an integral part of every efficient workplace because it recognizes a person's capabilities in relationship to each specific job task. It helps an organization understand the physical attributes of their employees and helps refine work processes to take advantage of those attributes to be the most efficient and productive organization they can be.



How Cardinus can help you

How do you effectively and efficiently provide key guidance to a modern and mobile workforce? How do you manage ergonomics risks across a large and diverse population?

Given the logistical challenges of providing training for employees at different sites, mobile employees and home workers, the practical solution is e-learning and online risk assessment for safe, ergonomic use of workstation equipment.

Healthy Working includes specific variants for the different types of ergonomic equipment and the many ways the modern employee works. Users choose the equipment and working practices relevant to them at the start of the training and a tailored learning experience follows.

Healthy Working includes a dynamic online risk assessment, focusing on the issues relevant to the individual. For any issues raised, Healthy Working provides the employee with tailorable advice on how your employees can resolve their issues for themselves, meaning the majority of risk issues are dealt with at source.

Online training for all the other ergonomics risks you want to address with your employees, such as materials handling, induction, etc. is also available. Just make sure your employees are using their electronic equipment safely before they start.

The small number of remaining issues can be viewed, prioritized and resolved via a central online management module that is unique to all Cardinus e-learning and risk management software. This provides the simplest solution to manage your ergonomic risk.

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