

A Safety Manager's Guide to **EVALUATION**



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How to Measure and Evaluate Your MSD Prevention Process

To borrow a commonly used quote from Peter Drucker, “If you can’t measure it, you can’t manage it.”

Evaluation and measurement comes at the end of our injury prevention framework, but it’s really the beginning, middle, end (and everything else in between) of your MSD prevention process.



Measurement is important because if you’re going to be putting time and effort into the MSD prevention process, you need to make sure you’re getting results. You also want to optimize the process and get the most out of it.

Using effective health and safety metrics isn’t always easy. We’ve written before about the difficulty of using [impactful leading and lagging indicators of safety performance](#).

So first we need to establish the fundamentals. We need to make sure we’re tracking what is important and using that information to continuously improve the process and prove its overall value.

Measurement Fundamentals

Measuring each part of the process is important for two main reasons.

1. Continuous improvement opportunities. You'll be able to use the data you collect to drive continuous improvement. Using both leading and lagging indicators, you'll be able to put the data together to get an idea of where the most risk lies. This will inform your priorities in the coming months.

2. Proving value. Measuring results will allow you to prove the value of the process and garner more support for it, creating a positive snowball effect. Over time, you should see major reductions in injuries, severity of injuries, lost-time days, workers compensation costs and many other lagging OHS metrics.

So what should you measure and when should you report the results?

We recommend a monthly report and an annual audit of the entire process. Let's go over each.

Monthly Report

The [monthly report](#) is a snapshot of the progress made over the course of the month. It should include:

- **Early intervention.** Track the total number of new early reports, early reports that resolved with no injury and reports that ended in an injury.
- **Education.** Track the number of formal education sessions for that month. Include management training, supervisor training, engineer training and group team member training sessions.
- **Ergonomics.** Track the number of ergonomic opportunities identified and ergonomic improvements made.

Annual Audit

The [annual audit](#) should review the results over the past year and check to make sure each element of the MSD prevention process is in place and working effectively.

For example ...

- **Establishment:** Have injury / illness logs and workers compensation records been reviewed to prioritize and develop a game plan for the MSD prevention process and document reduction goals related to MSD cases, MIR, lost/restricted workdays and costs?
- **Education:** Have employees received formal and 1-on-1 follow up training? Do they understand basic ergonomic principles and good work practices?
- **Early Intervention:** Do employees have a clear way to report fatigue and discomfort before it requires medical attention? Do you have a prevention specialist on your team to proactively assist employees with a self-care program?
- **Ergonomics:** Have you developed a prioritized list of jobs for analysis? Is there a schedule and tracking process for control measures?
- **Evaluation:** Is an annual self-assessment of each element of the MSD prevention process conducted and the results documented?
- **Results:** Have reduction goals for MSD cases, lost / restricted workdays, MIR and costs been achieved?

This is just a sampling of the annual audit. The full audit contains over forty questions similar to those above.

The Results Are In: Two MSD Prevention Case Studies from the Real World

You might be wondering what kind of results you could expect from the comprehensive MSD prevention process we often write about.

Well, the results are in.

Following are two case studies from Ergonomics Plus clients. We don't show you these to brag, but to illustrate what can happen when you [think prevention first](#) and implement a comprehensive prevention process. We'll also include the strategy and takeaways that can be learned from the case studies.

Let's get started.



Case Study 1 – Juno Lighting Group

The problem:

Upon contacting Ergonomics Plus for services in 2006, the Juno Lighting Group Fishers, Indiana facility was experiencing high levels of recordable injuries and illnesses. In 2005, the facility experienced thirty (30) OSHA recordable injuries and had a medical incidence rate of 20.29.

Although there was an active safety team, there was not an [ergonomic team](#), no formal process to identify [ergonomic improvement opportunities](#) and no formal [early intervention process](#) had been established to address early signs of employee fatigue or discomfort.

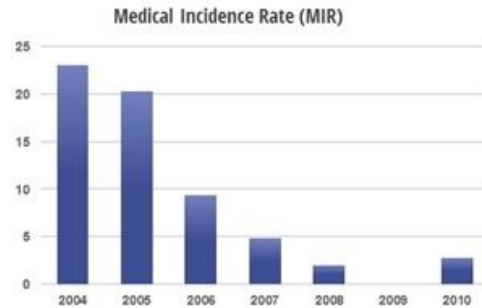
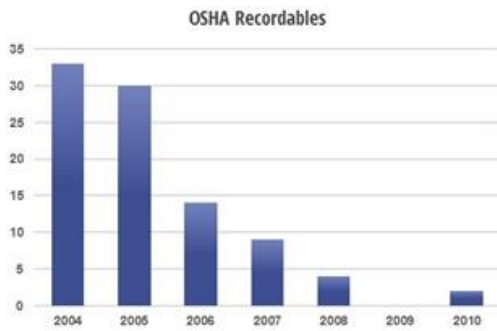
The solution:

Through the use of Ergonomics Plus [on-site services](#), Juno Lighting Group was able to establish a comprehensive MSD prevention process and see significant reductions in the key health & safety metrics they measure.

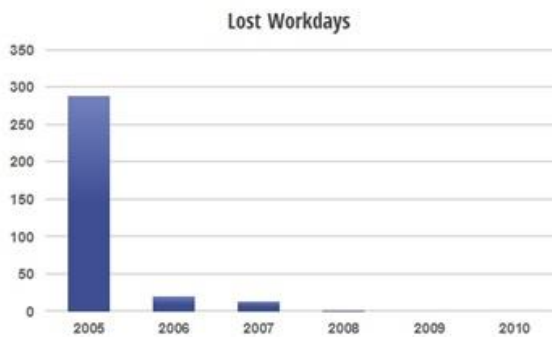
Juno Lighting Group was able to do this by implementing the Ergonomics Plus injury prevention process, [the E+ System](#).

The results:

Since instituting the E+ System in 2006, JLG Fishers has experienced significant decreases in OSHA recordable injuries, medical incidence rate, and lost workdays.



Juno Lighting group saw significant decreases in OSHA recordable injuries, medical incident rate and lost workdays. More importantly, JLG employees are safer and healthier as a result of a 100% commitment to the MSD prevention process.



Case Study 2 – Square D

The problem:

Upon contacting Ergonomics Plus for services, this facility was looking for solutions to combat high workers compensation claims and costs. The company had recently experienced 34 medical MSD cases with high severity and lost time rates as well.

They had a safety team in place but no formal ergonomic improvement process, education/training process or early intervention strategy to proactively reduce MSD risk factors.

The solution:

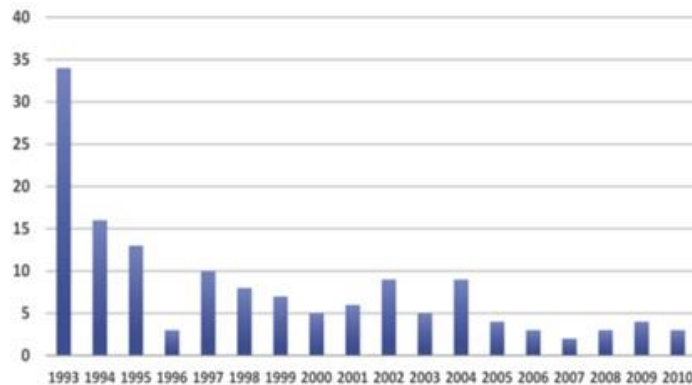
Square D partnered with Ergonomics Plus to establish a [comprehensive MSD prevention process](#) to systematically reduce injury risk. This has been a tremendously successful partnership. An Ergonomics Plus injury prevention specialist has been making weekly visits to this Square D facility since 1993 – an example of weekly dedication producing long-term results.

Square D has seen major improvements in the key health & safety metrics it tracks as well as a healthy return on their investment.

The results:

Since instituting the Ergonomics Plus MSD prevention process in 1993, Square D has experienced significant reductions in OSHA recordables, MSD cases and related claims and costs.

Square D realized a 91% decrease of MSD-related cases. This is good for their business and great for their people.



The Strategy and Takeaways

The key to successful MSD prevention is to reduce all risk factors that contribute to MSDs. Both of these facilities have completely bought in to this philosophy, and they are reaping the rewards.

If you're a [proactive health & safety leader](#) looking to take your OHS program to the next level, consider implementing a [comprehensive MSD prevention process](#) at your facility.

By systematically reducing MSD risk factors, you can improve key [health & safety metrics](#) as well as increase productivity and overall human performance.

Consider adding or improving upon these parts of your process:

1) Ergonomic Improvement Process: A systematic ergonomic improvement process is a cornerstone of successful MSD prevention efforts. Ergonomics is not just about doing ergonomic assessments; it's about making cost-effective improvements.

2) Education and Training Process: Education and training is a process that ensures the entire workforce is fully aware of all risk factors that can lead to MSD; and not only know, but apply principles of MSD prevention. This is simple in concept, but difficult in practice. Remember that education and training is a process, not a one-time event that is quickly forgotten.

3) Early Intervention: Early intervention is a proactive strategy to find early signs of an injury and prevent it from happening. When employees recognize they are experiencing fatigue and discomfort (early warning signs of MSD), they are encouraged to report it. Once the issue is reported, self-help tools should be readily available to the employee through an experienced [injury prevention specialist](#). Early intervention is about **prevention**, not treatment.

One Proven Way to Get Better Results From Your Ergonomics and MSD Prevention Process

According to the Bureau of Labor Statistics, [41% of all workplace injuries were sprain / strain related](#) in 2005.

In response, smart safety professionals are turning to ergonomics and MSD prevention initiatives to combat these injuries. (After all, [prevention is always better than treatment.](#))



One proven way to get better results from your ergonomics and MSD prevention process is to partner with an on-site, industrial athletic trainer.

By treating your employees like professional athletes and adopting a sports medicine mindset, you can create a prevention culture that gets results.

Back in 1989, [industrial athletic training](#) was a new and exciting, yet unproven, concept adopted by a few pioneers in health and safety. Today, however, as more and more industrial companies partner with athletic trainers, the concept is further validated by the data.

The numbers don't lie.

NATA Study: Athletic Trainers in the Workplace

The concept of athletic training in the industrial setting has been validated time and time again.

The National Athletic Trainer's Association conducted a [national survey](#) of industrial companies that utilize the services of a workplace athletic trainer.

Results of the study showed:

- 100% of the companies reported the athletic trainer provides a favorable return-on-investment (ROI).

Of the above companies that tracked a specific ROI amount:

- 30% indicated the ROI was at least \$7/employee per \$1 invested
- 83% indicated the ROI was more than \$3/employee per \$1 invested
- 94% of companies indicated the severity of injuries had decreased by at least 25%
- 68% of the companies indicated that the certified athletic trainer helped to decrease restricted workdays and workers' compensation claims for musculoskeletal disorders (MSDs) by more than 25%
- 50% of companies reported that the number of injuries decreased by at least 50%
- 46% of the companies that provided on-site physical rehabilitation indicated that health care costs had decreased by more than 50%

Client Study: Cost Reduction of Ergonomics Plus Clients

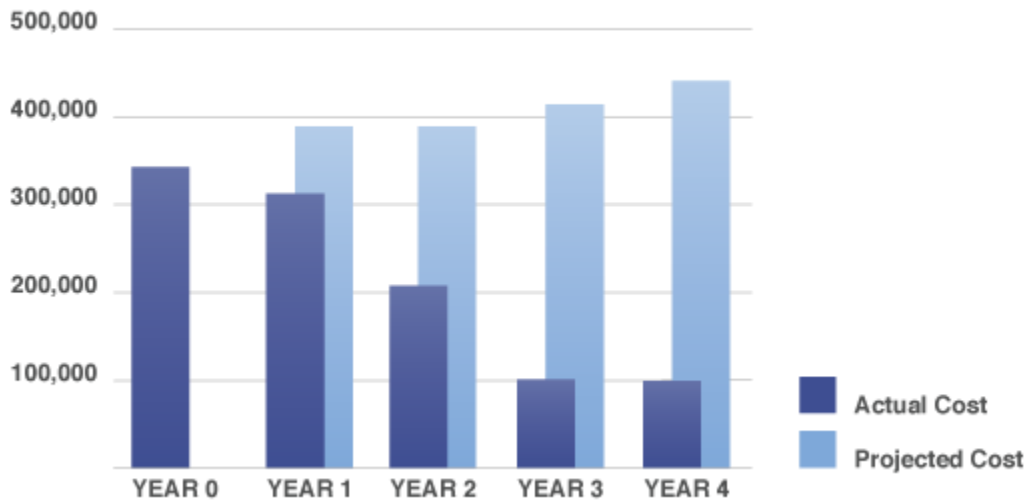
Our own results further validate this data.

We're often asked to demonstrate the business value of our services, so we conducted an internal study of [Ergonomics Plus clients](#) to find their average cost savings.

The Results:

This study averaged the MSD cost reductions for the 17 companies that participated in the study and includes the first four years an Ergonomics Plus program was implemented. Only direct medical costs were measured; other associated secondary or "hidden" costs were not included.

The results of this study are outlined below.



Year 1: Costs were 14% less than projected

Year 2: Costs were 47% less than projected

Year 3: Costs were 76% less than projected

Year 4: Costs were 78% less than projected

*based on a conservative 6.5% medical inflation rate

Why Industrial Athletic Training Works

As you can see from the two studies above, industrial athletic trainers are getting impressive results.

Why?

Industrial athletic training works for several reasons:

A focus on prevention. The biggest difference between the Sports Medicine and Health Care model is that Sports Medicine places the majority of its focus on prevention. Prevention is always better than treatment and athletic trainers are the ideal prevention tool.

Injury prevention and human performance expertise. Athletic trainers are specifically trained in injury prevention and human performance. This type of expertise is a huge asset to the OHS process, and is typically missing on most OHS teams.

It creates a culture of prevention. Creating a culture of prevention takes time. Ongoing dedication from a professional with the injury prevention and human performance expertise of an athletic trainer shows that the company cares about its people. In turn, this creates a culture of prevention where everyone takes responsibility for their part in the prevention process.

Conclusion

Are you getting the most out of your ergonomics and MSD prevention initiatives?
Have you considered partnering with an athletic trainer to get to the next level?

Four Free Tools to Evaluate and Improve Your MSD Prevention Process

Carefully evaluating your ergonomics and MSD prevention process is important for two reasons.

- Careful evaluation of your process allows you to find continuous improvement opportunities, and
- Careful evaluation of your process allows you to prove the value of your program and get the continued support and resources you need.



So where does your ergonomics and MSD prevention process currently stand?

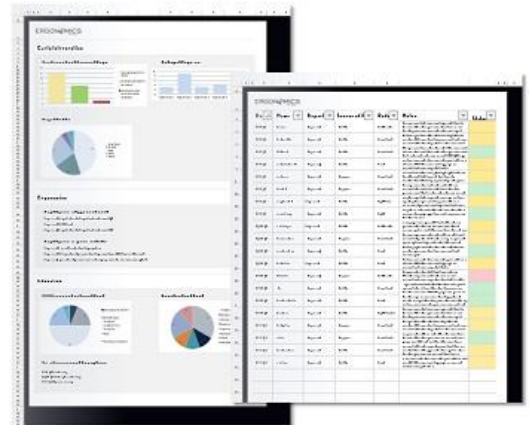
To help you evaluate yourself, we've put together a few (completely free) resources.

I hope you find them useful!

1. Example of a Monthly Report

What is it?

This Excel spreadsheet is an example of the progress report we submit to our clients on a monthly basis. It includes a summary of all activity as well as details on each element of the ergonomics and MSD prevention process.



Why should you download it?

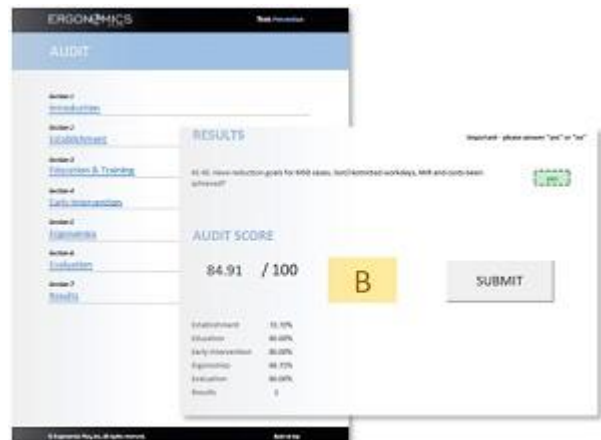
Consider downloading the example report for a practical and effective monthly progress report you can use as an example to create your own. You'll also develop a better understanding of the monthly activities of an Ergonomics Plus on-site injury prevention specialist.

[Click here to download your example monthly report.](#)

2. Annual Audit

What is it?

Every year we conduct a comprehensive audit of all of the facilities we service. We do this to ensure each element of the MSD prevention process is in place and working as effectively and efficiently as possible.



This free download includes the audit documentation and an excel spreadsheet that will calculate a grade for your facility.

Why should you download it?

Download the annual audit to grade your facility and find improvement opportunities.

For example ...

Ergonomics: Have you developed a prioritized list of jobs for analysis? Is there a schedule and tracking process for control measures?

Education and Training: Have employee received formal and 1-on-1 follow up training? Do they understand basic ergonomic principles and good work practices?

Early Intervention: Do employees have a clear way to report fatigue and discomfort before it requires medical attention? Do you have a prevention specialist on your team to proactively assist employees with a self-care program?

These are just a few of the questions you should be asking yourself. Download the audit for more.

[Click here to download your copy of the Ergonomics Plus annual audit.](#)

3. MSD Cost Calculator

What is it?

The MSD cost calculator takes your direct costs of MSDs (or worker's comp costs) and your company's average profit margin to calculate your total costs and the sales needed to cover your costs.

For example, if you have \$300,000 in direct costs, your indirect costs are approximately \$330,000. This brings your total costs to \$630,000. At a profit margin of 5%, your company must generate \$12,600,000 in sales to cover the cost of these unnecessary injuries.

(Note: Indirect costs can be up to twenty times the direct cost. This calculation uses a 1.1 ratio of direct to indirect costs, making this a conservative estimate. For a more accurate number, see [OSHA's Safety Pays calculator.](#))

Why should you use it?

Use the MSD cost calculator to build the business case for your ergonomics and MSD prevention efforts. Quantifying all costs of unnecessary injuries and relating these costs to your company's profitability is a great way to garner more support from your leadership team.

[Click here to calculate the cost of MSDs at your facility.](#)

4. Ergonomics Plus Cost Benefit Calculator

What is it?

The Ergonomics Plus cost benefit calculator is a tool we developed to help prospective clients see the estimated return on investment (ROI) of partnering with an Ergonomics Plus injury prevention specialist.

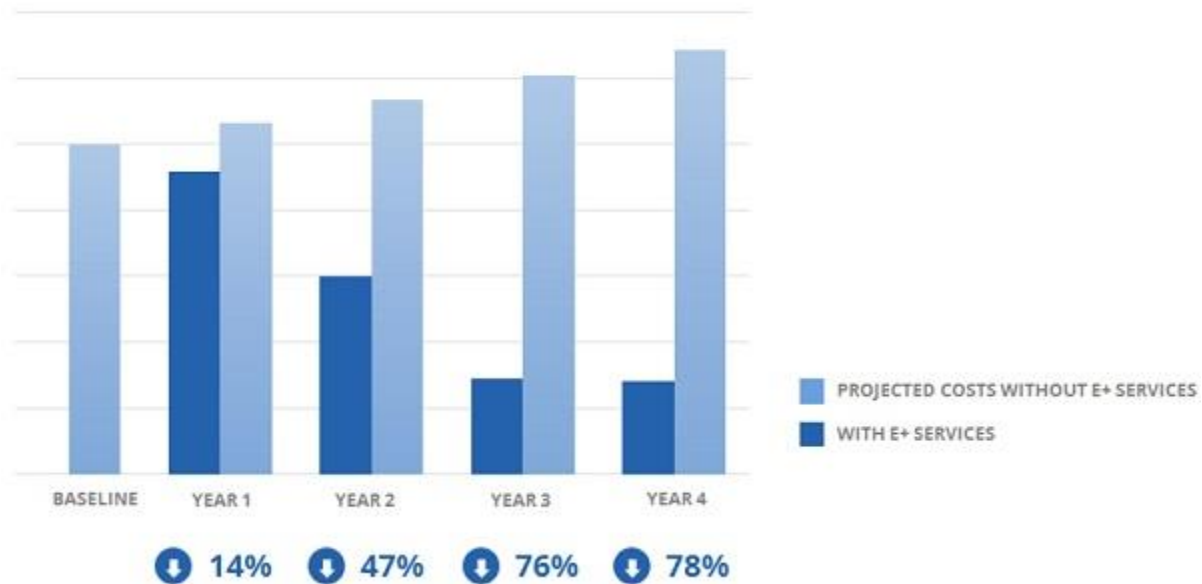
The Ergonomics Plus ROI Estimator is based on an internal study of Ergonomics Plus clients.

This study averaged the MSD cost reductions for the seventeen companies that participated in the study and includes the first four years an Ergonomics Plus program was implemented. Only direct



medical costs were measured; other associated secondary or “hidden” costs were not included. The results of the study are outlined below:

STUDY: COST SAVINGS OF ERGONOMICS PLUS CLIENTS



Why should you download it?

If you're ready for an experienced partner in ergonomics and MSD prevention and you agree with our [principles and values](#), consider downloading the calculator to find out if partnering with us makes business sense for you.

With just a few simple inputs, you'll find out your estimated cost savings, estimated cost of services and estimated ROI.

If you're not ready, that's ok too. Download the calculator as an example of a cost benefit analysis you can use to justify other services, capital expenditures, etc.

[Click here to get your customized cost benefit analysis of Ergonomics Plus services.](#)

Conclusion

Thank you for taking the time to read our guide to *Evaluation*.

I hope you found it useful and relevant to your situation. If you have any questions or need anything at all, [get in touch with us](#) and we'll be happy to help in any way we can.

About Ergonomics Plus



At Ergonomics Plus, we believe that **prevention is better than treatment and one injury at work is too many.**

Our experience has shown that a focus on prevention today improves returns tomorrow. Proactive companies that build a culture of safety and wellness achieve levels of human performance that is a competitive advantage for their business. We can help with that

Industrial companies hire Ergonomics Plus for a hands-on, practical and cost-effective approach to injury prevention and human performance. We make weekly visits to our client's facilities to implement our ergonomics and injury prevention methodology; a proven methodology that has been developed over two decades of providing services and thousands of hours on the shop-floor.

Are you ready to take your OHS process to the next level?

Take advantage of over two decades of experience and request a free consultation today.

Request a Free Consultation

Interested in more?

Contact Mark Middlesworth, Ergonomics Plus founder and president, to discover how your company can benefit from a comprehensive ergonomics and MSD prevention process.

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