

A man wearing a white hard hat and safety glasses is looking at a tablet computer. He is wearing a blue work shirt. The background is a blurred industrial setting, likely a factory or warehouse, with overhead lights and various equipment.

How to Get Started with Ergonomics

Table of Contents

[How to Get Started with Ergonomic Risk Assessments](#)

[How to Choose Short and Long-Term Ergonomics Metrics](#)

[How to Build Your Ergonomic Assessment Team](#)

[How to Select Your Ergonomic Assessment Tools](#)

[How to Train Your Ergonomic Assessment Team](#)

[How to Manage Your Ergonomics Data](#)

How to Get Started with Ergonomic Risk Assessments



A safety team without a proactive ergonomic risk assessment process is a safety team flying blind. Learn how to get your ergonomics process off the ground safely with the right team, tools, training, and technology.

The Wright brothers beat the odds and accomplished the impossible in 1903, proving that controlled flight was possible. But there was still a major hurdle to get over before scheduled air travel could take place: humans are unable to safely fly “blind” in the clouds for any length of time.

The inability for pilots to fly in bad weather meant that the airplane wasn’t able to compete with ground transportation and achieve its full potential as a mode of transportation.

That is, until September 24, 1929 when Lt. James H. “Jimmy” Doolittle made the first complete flight from takeoff to landing solely by the use of instruments and radio.

He was able to do this because he had the tools and technology he needed to go from guesswork and flawed intuition to precise direction and informed decision-making. This empowered him to turn scheduled flight from just a dream into a reality that has changed the world as we know it forever.

We often see a transformation like this in our ergonomics services practice. Clients go from a reactive approach to ergonomics to a proactive approach when they have the team, tools, and technology in place to provide direction and the information required for better decision-making.

It’s usually a big leap forward in how they view workplace ergonomics and musculoskeletal disorder prevention. For the first time, they’re in front of the problem. They feel in control. They know the risk at their worksite, so they can do something about it.

If it feels like your safety team has been flying blind, it’s time to get the right team, tools, and technology in place so you can confidently manage the musculoskeletal health of your workforce and the risk factors that endanger it.

We’ve put together this guide to give you everything you need to know to get started with a proactive ergonomic risk assessment process, including practical tools and powerful technology to help you get the job done.

Let’s get started.

The goal of proactive ergonomic risk assessments

First, let’s start with the goal of proactive ergonomic assessments. This will inform your ergonomic assessment strategy and tactics.

The goal of your ergonomics process as a whole is to identify and control risk factors that contribute to musculoskeletal disorders.

The goal of your ergonomic assessment process, specifically, is to identify those risk factors as efficiently and as accurately as you can.

We recommend and assist clients in adopting a proactive approach to this. If you're only conducting ergonomic assessments after an injury occurs, then it's too late. By all means, conduct an assessment if there is an injury. But what you really need to do is get in front of the problem.

Start a proactive ergonomic assessment process that immediately, aggressively, and relentlessly identifies risk factors leading to MSDs. If you commit to and own this process, you'll always have a firm foundation upon which you can make smart decisions and take proactive actions to reduce risk before injuries occur. You can only do this when you have the data always at your fingertips through proactive assessments.

Take the proactive approach. The benefits are many and the bottom line results are clear: it works.

Just getting started? Here is your ergonomic assessment checklist

Ready to get started with proactive ergonomic assessments? There are a few decisions to make and things to do before you jump in and get started.

Here is your getting started checklist:

Step 1: Choose metrics that define what success looks like for the short and long term

The ergonomics metrics you set at the beginning of the process will be your north star, guiding your efforts and ensuring you make progress toward your goals.

Step 2: Select your ergonomic assessment team

Your ergonomic risk assessment team should be multidisciplinary. Everyone on the team should have roles and responsibilities that are clearly and regularly communicated. Each team member should be held accountable.

Step 3: Select a common set of ergonomic assessment methods and tools

Selecting a common set of ergonomic risk assessment methods and tools keeps everyone on the same page and ensures consistent, reliable data and a one-to-one comparison across sites, departments, jobs, and tasks.

Step 4: Train your team to ensure they can conduct accurate and efficient assessments

Bad data can be worse than no data at all. Prevent this problem by making sure everyone on your ergonomics team has the knowledge and skills required to meet their roles and responsibilities. Accurate and efficient assessments are the backbone of the ergonomics process.

Step 5: Determine how your ergonomics data is going to be managed and used

Don't let your hard-earned ergonomics data go to waste! Make sure you are properly storing data inside a well-designed management system. Having the right data always at your fingertips empowers you to make smart resource allocation decisions.

No more flying blind

Getting started with proactive ergonomic assessments by executing these steps is like instrumenting your plane with the necessary tools and

technology for safe flight. You'll be guided by data that empowers you to go from guesswork and flawed intuition to precise direction and informed decision-making.

The data you gather will tell you if your worksite is laden with MSD risk. Or maybe it's not bad overall but there are a few hot spots that need your attention.

Either way: if you don't conduct proactive ergonomic risk assessments, you won't know. And you're flying blind.

So don't wait until the next injury to get started! That's like waiting until your plane hits the ground.

The good news is that now is a great time to get started, and we've got you covered.

How to Choose Short and Long-Term Ergonomics Metrics



Ergonomics metrics are an important tool to keep your ergonomics team focused and aligned on the right activities to identify and control risk. Read this article to learn how to choose your short and long-term ergonomics metrics.

One day Alice came to a fork in the road and saw a Cheshire cat in a tree.

“Which road do I take?” she asked.

His response was a question: “Where do you want to go?”

“I don’t know,” Alice answered.

“Then,” said the cat, “it doesn’t matter.”

– Lewis Carroll, *Alice in Wonderland*

Much ink has been spilled on the virtues of setting specific, measurable, actionable, time-dependent (aka SMART) goals. You’ve likely encountered this advice many times before. Maybe even with respect to your workplace ergonomics process.

Sometimes when you hear something over and over again you tend to brush it off. So, like the Cheshire cat in *Alice in Wonderland*, I have to ask: Do you know where you want your ergonomic assessment process to go? Have you set your ergonomics goals?

And, further, have you documented the specific metrics you’ll track along the way? These metrics will tell you whether or not you’re on the right path. Whether you’re making the right day-to-day decisions. If you need to dedicate more or less resources.

The documentation piece is particularly important because the members of your ergonomics team frequently come to a fork in the road.

Every day they make decisions about how they allocate their time and energy. All of those decisions are forks in the road. Your documented ergonomics process metrics tell them which way they should go.

[Back to top](#)

Ergonomics Metrics 101

While every organization's ergonomics metrics might look a little different, you should set your metrics based on a few best practices:

Ergonomic metrics should include both leading and lagging indicators

Ergonomics metrics should align with the ergonomics improvement process

Ergonomics metrics should take into account the current state of your ergonomics program

1. Ergonomics Metrics Should Include Leading and Lagging Indicators

The ergonomics metrics you select will be a combination of leading and lagging indicators.

Leading indicators: measures preceding or indicating a future event.

These metrics are used to proactively drive activities carried out to prevent and control injury.

Lagging indicators: measure a company's incidents in the form of past accident statistics.

These metrics are used to quantify after-the-fact results.

We recommend clients adopt a combination of each type with a focus on leading indicators to drive proactive actions.

2. Ergonomics Metrics Should Align with the Ergonomics Improvement Process

Your ergonomics metrics should be aligned with each step of the ergonomics improvement process:

- Assess risk

[Back to top](#)

- Plan improvements for moderate to high risk jobs and tasks
- Make improvements to jobs and tasks
- Measure effectiveness of controls

You should have a corresponding metric for each of these steps to measure your ergonomics team's operational effectiveness.

3. Ergonomics Metrics Should Take Into Account the Current State of Your Ergonomics Program

The metrics you set should be based on an evaluation of the current state of your ergonomics program. It is helpful at this point to conduct a comprehensive audit so you can understand the current state. The audit will likely identify specific shortcomings you want to focus on.

Short-term Ergonomics Metrics

This series of articles revolves around how to get started with ergonomic assessments, so let's assume you're just getting started with a formal, proactive ergonomic assessment process or you're making an investment into revitalizing an existing process.

Your short term ergonomics metrics should include what it's going to take to launch (or revamp) your ergonomic assessment program and what you hope to have accomplished in the first 90 days of your launch.

Committing to achieve these metrics will get your ergonomics process off to a fast start and generate the momentum you need to sustain it.

Ergonomic assessment process launch (30 days)

Given the short time frame, these are likely to be leading, activity-based metrics. It's more of a checklist of items you need to accomplish to get your process off the ground than it is a specific number to hit.

- **Establish ergonomics metrics:** Determine your short and long term ergonomics metrics.

- **Establish the ergonomics team:** select a multi-disciplinary ergonomics team with representation from safety, engineering, maintenance, supervisors, and industrial athletes. Decide who on the team is responsible for conducting ergonomic risk assessments.
- **Select ergonomic assessment tools:** each team member should be using the same methods and tools to assess ergonomic risk factors to ensure a one-to-one comparison across departments, jobs, and tasks.
- **Train the ergonomics team:** the team should be trained to develop the knowledge and skills required to accomplish their roles and responsibilities.
- **Select an ergonomics data management system:** determine in advance how you are going to manage the data generated from the ergonomic assessments.

Ergonomic assessment process rollout (60 days)

Now that you have everything organized and in place, it's time to execute the ergonomics process. These metrics should align with the process of assessing risk, planning and making improvements, and then measuring the effectiveness of those improvements.

- **Number of Assessments Completed:** we recommend setting an activity-based goal for the first 60 days after the launch for number of assessments completed. This gives your team an opportunity to start fast and build momentum for the new ergonomic process.
- **% of Jobs at Moderate to High Risk with Improvement Plans in Place:** Ergonomics isn't just about assessments, it's about making improvements. Make sure the team is planning improvements for jobs and tasks that fall outside of recommended thresholds.
- **% of Jobs at Moderate to High Risk with Improvements Made:** Again, the goal is to reduce risk by making improvements. Track that improvements are being made by conducting post-improvement assessments.
- **% Risk Reduction:** Did the improvements you made reduce risk? Be certain your control methods are effective by tracking risk reduction percentages.

If you're just getting started, the numbers you select here will likely be small. That's okay! You'll improve over time.

The key is to make sure you're tracking all four of these measures from the beginning. This is about building good habits. You're reinforcing the fact that ergonomics isn't just about conducting assessments, it's about making improvements. Ergonomics is a process. Track this right from the start.

Long-term Ergonomics Metrics

Now that you have your ergonomics process off the ground, it's time to sustain it. You can use your long-term ergonomics metrics to guide you.

Ergonomics Training Metrics

% of Ergonomics Training Plan Completed: Always make sure ergonomics teams have the knowledge and skills to do their job, even as members of the team naturally come and go.

Ergonomic Design

% of New Jobs/Processes Implemented at Low Risk: Make sure you don't introduce any jobs and processes to your worksite with ergonomic risk factors present. The best time to consider ergonomics is during the design phase.

Ergonomic Improvement Process Metrics

- **% of Jobs Assessed for Risk:** The job improvement process starts by understanding the ergonomic risk factors at your worksite.
- **% of Jobs at Moderate/High Risk with Improvement Plans in Place:** Ergonomics is about making improvements! Make sure improvements get planned for moderate/high risk jobs.
- **% of Jobs at Moderate/High Risk with Improvements Implemented:** Ensure improvements actually get implemented.
- **% Risk Reduction:** Ensure workplace improvements are effectively reducing risk.

Bottom Line Results

- **% of Jobs at Low Risk:** This is the ultimate leading metric for your ergonomics process. The goal of your ergonomics process is to drive this number as high as possible.
- **Number and Cost of Musculoskeletal Disorders:** Track the number and cost of musculoskeletal disorders at your worksite.
- **Return on Investment:** Make sure you are getting a return on your investment in ergonomics.

Documenting Your Ergonomics Metrics

It is important that you document your metrics and make them widely available to everyone on the team and to all stakeholders.

Sometimes the biggest benefit of documenting something is that it forces you to think it through all the way. You need to boil down all the thoughts and ideas in your head to make them concrete. When they're written down, they're solid. They're tangible.

The other major benefit is that you can use these metrics to gain support throughout your organization. You'll be able to show, with exact numbers, how your efforts have contributed to your organization's success. The more support you gain, the more sustainable and effective your ergonomics process will be.

So make sure you do the work to document your ergonomics metrics. You'll be glad you did.

Now, do you know where you want to go?

Tracking your ergonomics metrics over time will be what guides your team to make decisions. When they come to a fork in the road during their workday, they'll be able to look at the metrics and determine the course of action that will get them closer to where you want them to be.

Not only does this help you focus the efforts of the team, but it's also a better experience for team members. It feels good to have clarity. It feels good to make progress toward shared goals.

A happy, productive team leads to a more sustainable process, creating a reinforcing loop of success. You'll start to build momentum and your ergonomics process will begin to take off.

How to Build Your Ergonomic Assessment Team



Ergonomics teams provide the critical infrastructure needed to drive workplace improvements that reduce ergonomic risk factors at your worksite. Read this article to learn everything you need to know to build a successful ergonomics team.

“The strength of the team is each individual member. The strength of each member is the team.”

– Phil Jackson

Phil Jackson would know.

He coached the Chicago Bulls team to a run of championships in the 90's that propelled them to be one of the greatest sports dynasties of all time.

And he did it by understanding the unique attributes of each member of the team. He knew their strengths and weaknesses. And he used that knowledge and understanding to maximize each individual's potential to positively contribute to the team's shared goal: winning NBA championships.

It worked. The Bulls won six championships in the 90's amidst all the drama and pressure that comes with professional sports (and having Dennis Rodman on your team).

Then he went on another streak as coach of the Lakers. The final count of NBA championships rings as a coach? 11.

"The strength of the team is each individual member. The strength of each member is the team."

On both teams, Phil was able to make the most of the talent available to him. And that's exactly what you can do with an ergonomics team at your worksite. Take a multi-disciplinary group of individuals and coach them up into a team that executes a championship-worthy ergonomics process.

Ergonomics is Everyone's Responsibility

Before we get into the details about how to establish an ergonomics team at your worksite, let's clear up any confusion: ergonomics is everyone's responsibility! It's important to involve as many people in the ergonomics process as possible, from the management sponsor and ergonomics process champion all the way down to every industrial athlete out on the shop floor.

The more people you involve, the better you'll be at ergonomics.

Industrial Athletes: The workers doing the job day in and day out are the real experts. They know the job intimately and can speed up the ergonomics process with that knowledge. Involving them early and often will also ensure workers will adopt the new tools and job processes you create when workplace improvements are made.

Supervisors: Supervisors are your eyes and ears. They can keep an eye on their area of responsibility to report on any ergonomics problems and encourage industrial athletes to stay involved in the ergonomics process.

Engineering and Maintenance: It is critical to involve engineering and maintenance in your ergonomics process. They are the ones who will help you design and implement workplace improvements.

Athletic Trainer/Injury Prevention Specialist: If you have an athletic trainer on staff at your worksite working with your industrial athletes, they know your worksite inside and out. They're an invaluable addition to the team.

Ergonomics Champion: Every ergonomics process should have a person who champions the process. This is typically the safety or HR manager, depending on the environment you work in.

Management Sponsor: The ergonomics process should have a management sponsor who regularly demonstrates and communicates the organization's commitment to the process.

Everyone inside the organization has a role to play in making your ergonomics process successful and should be held responsible for their role.

Establishing an Ergonomics Team

The ergonomics team itself is a small group of people with representation from each group outlined above.

- Industrial Athletes
- Supervisors

- Engineering and Maintenance
- Athletic Trainer/Injury Prevention Specialist
- Ergonomics Champion
- Management Sponsor

Teams are typically 5-15 people, depending on the size of your worksite and the type of work environment.

Establishing an ergonomics team shows management commitment to the ergonomics process, involves many throughout the organization to garner support and resources, and gives you the critical capabilities you need to execute the process itself.

Show your commitment. Establishing an ergonomics team shows your commitment to the process. You are saying that the ergonomics improvement process is worth valuable time and resources.

Involve many. Ergonomics teams should have representation from each group listed above to encourage active participation in the process and garner ongoing support.

Add capabilities. A successful ergonomics process requires a broad range of knowledge and skills. You need to be able to get the job done! Having a multi-disciplinary team ensures you have all of the capabilities you'll need to execute the tactical elements of the process.

Ergonomics Team Responsibilities

The ergonomics team is responsible for executing the tactical elements of the ergonomics improvement process.

Assess risk. Conduct ergonomic risk assessments to identify risk factors.

Plan improvements. Prioritize, plan, and cost-justify ergonomic improvement projects.

Make improvements. Implement workplace improvements to control risk.

[Back to top](#)

Measure progress. Ensure improvements controlled risk without introducing any new risk factors.

Ergonomics Team Training Plan

Your ergonomics team should be equipped with the knowledge and skills to execute the ergonomics process. Each team member should undergo training as they are added to the ergonomics team and then periodically receive continuing education to sharpen their skills.

An upcoming installment of this series of articles on How to Get Started With Ergonomic Risk Assessments is titled How to Train Your Ergonomics Team, where we'll go into further detail on how you can empower your team with ergonomics training.

Ergonomics Team Rhythms

Your ergonomics team's rhythms should follow a similar pattern to other teams in your organization. They should meet regularly, be held accountable for results, and celebrate success.

Meet regularly. Establish a regular meeting schedule for your team where updates are shared and clear outcomes are decided and agreed upon that should be done before the next meeting.

Be held accountable. Each team member should be held accountable for their responsibilities, just like any other team.

Celebrate success. Celebrate your ergonomics team's wins and make them visible throughout your organization! Post ergonomics success stories in any internal communication channel available to you.

How to Select Your Ergonomic Assessment Tools



Selecting a common set of ergonomic risk assessment methods and tools keeps everyone on the same page, ensures consistent, reliable data, and allows for a one-to-one comparison across sites, departments, jobs, and tasks. Read this article to learn how to select a set of ergonomic assessment tools to use at your worksite.

“You cannot mandate productivity, you must provide the right tools to let people become their best.”

— Steve Jobs

One of the biggest struggles we see from safety and ergonomics teams just getting started with ergonomic risk assessments is the tool selection.

What ergonomic assessment tools should we use? When should we use them? Do we need a job-level tool or a task-level tool? Do we need a checklist evaluation? Should we make our own tool? How do the tools work together in a coherent, logical way to recognize hazards and progressively quantify risk levels without wasting valuable time and energy?

These are a few of the common questions we hear. And for good reason: you absolutely must provide the right tools for the job. Or, as Steve Jobs knew, your people will never become their best.

Following are the different types of ergonomic assessment tools, principles for tool selection, and a best practice ergonomic assessment toolkit.

Let's get started.

Types of Ergonomic Assessment Tools

First, let's understand the lay of the land. There are a lot of ergonomic assessment tools out there. Each tool has a specific purpose and should be used a certain way. This also means that each tool has limitations and shouldn't be used in every situation.

Ergonomic Assessment Tools by Type

Broadly, there are three types of ergonomic risk assessment tools:

1. Hazard Recognition Checklists
2. Simple Risk Assessment Screening Tools
3. Objective Assessment Tools

(Note: To get a sense for all of the available tools out there, you might find this tool picker from the Centre of Research Expertise for the Prevention of Musculoskeletal Disorders (CRE-MSD) helpful.)

1. Hazard Recognition Checklists

These checklists do exactly what their name implies. They help you document any recognized ergonomic hazards at your worksite. They will usually include a list of hazards such as awkward postures, forceful exertions, and repetitive motions. When you or a member of your team observes these hazards, you document them with the checklist.

Hazard Recognition checklists are qualitative and low complexity. Examples include:

- ErgoPlus Quick Screen
- WISHA Caution Zone
- WISHA Hazard Zone
- Kodak Ergonomics Checklist
- HSE Risk Filter

2. Simple Risk Assessment Screening Tools

Simple Risk Assessment screening tools systematically evaluate the major ergonomic risk factors for each of the major body segments. They will typically have guidance criteria for posture, force, and repetition.

Simple Risk Assessment screening tools are typically quantitative and medium complexity. Examples include:

- ErgoPlus Job Screen
- Quick Exposure Checklist
- HSE Risk Assessment Worksheet
- ISO 11228-3

3. Objective Assessment Tools

Objective Assessment tools are comprehensive, detailed evaluations of specific risk factors.

Objective Assessment tools are quantitative and high complexity. Examples include:

- NIOSH Lifting Equation
- Rapid Entire Body Assessment
- Rapid Upper Limb Assessment
- Snook Tables
- WISHA Lifting Calculator
- Job Strain Index
- HAV Calculator
- Ohio BWC/OSU Push-Pull Guidelines
- ACGIH Hand Activity Level
- ACGIH Upper Limb Localized Fatigue
- AAMA Metabolic/Physiological Assessment Method
- 2D Static Biomechanical Model

Ergonomic Assessment Tools by Body Segment

Not every assessment tool is designed for a comprehensive analysis that includes each ergonomic risk factor for each body segment. Make sure you understand the primary focus for each tool as well as its limitations.

Ergonomic Assessment Tools by Level of Abstraction

There are job-level tools and there are task-level tools. There is a time and a place for both, just make sure you understand at what level you're assessing and reach for a tool that matches your context.

Ergonomic Assessment Tool Selection Principles

Here are a few principles and best practices for selecting your ergonomic assessment tools. You can use them as a filter when you're introduced to new tools to determine if they'd be a good fit at your worksite.

A Set of Tools, Not One Tool

Given that there are tools of different types, tools that evaluate different body segments, and tools that evaluate risk at varying levels of abstraction, what you really need is a set of tools, not just one tool. Your tool set should

include each type of tool so that you can always reach for a tool appropriate to the context of your situation.

At the same time, you don't want to overwhelm yourself and your ergonomics team with too many tools in your bag. Keep it simple and provide specific guidance on when to use each tool.

A Mix of Qualitative and Quantitative

Your ergonomics process will benefit from having both qualitative and quantitative tools at your disposal.

Qualitative, checklist-style assessments are great because they have low training requirements. Anyone that recognizes an ergonomic risk factor can document it, which is an opportunity for you to involve everyone at your worksite in the ergonomics process. Qualitative tools also allow for quickly screening your worksite to determine where you should prioritize your more in-depth ergonomic analysis.

Quantitative tools allow for a data-driven continuous improvement approach, helping you measure progress and show quantitative risk reduction over time. They are also useful as design guidelines when you're making workplace improvements or implementing new jobs and processes at your worksite.

A Tool for Each Level of Abstraction

You should have both job-level tools and task-level tools and use them appropriately.

A Logical Progression Through Each Level

Your tools should work together in harmony. There should be a logical progression through each level of assessment.

Practical Enough to Use, Accurate Enough to Trust

There is a tension in ergonomics between pinpoint accuracy and a tool that is practical enough for everyday practice. You likely have hundreds of jobs

to evaluate and there is only so much time in the day. You need a tool set that is practical enough to use and also accurate enough to trust.

A Best Practice Set of Ergonomic Assessment Tools

Standardizing your ergonomic assessment methods and tools keeps everyone on the same page, ensures consistent, reliable data, and allows for a one-to-one comparison across sites, departments, jobs, and tasks.

Here are the tools we use ourselves, recommend to clients, and have built into ErgoPlus Industrial, our ergonomics management software platform.

Hazard Recognition:

ErgoPlus Quick Screen

Simple Risk Assessment:

ErgoPlus Job Screen

Objective Assessments:

NIOSH Lifting Equation

REBA

RULA

Snook Tables (Push, Pull, Carry, Lift/Lower)

WISHA Lifting Calculator

How to Train Your Ergonomic Assessment Team



Ergonomics training ensures your risk assessment team is empowered with the knowledge and skills they need to successfully execute their responsibilities in the ergonomics process. Read this article to learn how to train your ergonomics team.

“Poets say science takes away from the beauty of the stars – mere globs of gas atoms. I too can see the stars on a desert night, and feel them. But do I see less or more? The vastness of the heavens stretches my imagination – stuck on this carousel my little eye can catch one-million-year-old light. A vast pattern, of which I am a part... What is the

[Back to top](#)

pattern, or the meaning, or the why? It does not do harm to the mystery to know a little about it. For far more marvelous is the truth than any artists of the past imagined it.

– Richard Feynman

There is a certain type of beauty to work. The end product doesn't always have to have a beautiful aesthetic for that to be true. I'm talking about the process of building the thing.

Carefully selecting the materials. Fretting over the designs. Assembling the pieces. Making adjustments as you go. Polishing the edges.

Then the moment happens. You set the thing you built in its new place. You make a few slight adjustments until it's perfect. You take a step back. And that's when you feel it: the satisfaction of doing your work with excellence. A job well done.

Often, this process feels like a form of art. And it is. But it's also a science.

Ergonomics is the science of work and it governs all of the activities we do to build products and deliver services.

Through the ergonomics improvement process, you are making the work better and more enjoyable for those doing it.

There are fewer forceful exertions, awkward postures, and repetitive motions. There is less wasted movement. There is less fatigue and discomfort throughout the day.

This gives the person doing the work more energy to focus on their craft and build a better product. It gives the person more energy when they go home to their family at night. And they will have more energy when they wake up in the morning to do it all over again.

Viewed this way, ergonomics delivers significant value to your organization and its people. It's how you can build great products and deliver a good experience for the people who build them.

Everyone in your organization should have this understanding about what ergonomics is and how it adds value. Everyone should be aware of it and your ergonomics team should be highly skilled in executing each step of the ergonomics process in order for you to get the most value out of it.

Ergonomics Training: Who, When, Where, What, and Why

Ergonomics training is about transferring knowledge and skills to people in your organization so they can effectively meet their ergonomics process responsibilities.

Regardless of whether or not you bring in an outside expert, this knowledge and skills development is critical as you execute an ergonomics improvement process.

Who should get ergonomics training?

Everyone should get ergonomics training. Yes, everyone.

Earlier I said, "Ergonomics is the science of work that governs all of the activities we do to build products and deliver services." By definition, everyone in your organization is involved in these activities and so it logically follows that everyone should get training.

What should the ergonomics training content include?

The goal of ergonomics training is to transfer knowledge and skills to your organization. Knowledge is relatively easy to accumulate quickly, but it also depreciates quickly. Skills are harder to win, but keep their value a little longer.

The knowledge and skills requirements are different for each role in the ergonomics process, so ergonomics training content and frequency should be adjusted according to each role.

When should they get ergonomics training?

This depends a little bit on the context of your situation and the maturity of your ergonomics process. If you're just getting started, you'll want to sequence your ergonomics training top-down to get management support and sponsorship before moving on.

Where should ergonomics training take place?

Most organizations today use a combination of online and onsite ergonomics training.

Online training is great for building knowledge quickly and at scale, and then reinforcing this knowledge over time through micro-learning sessions available anytime, anywhere.

Onsite training is better for skills-development through step-by-step instruction from an ergonomics expert combined with real-life practice and application of knowledge.

Why does ergonomics training matter?

Training is one of the highest leverage activities for any manager. Here is Andy Grove, former Chairman and CEO of Intel, on the subject, "Training is, quite simply, one of the highest-leverage activities a manager can perform. Consider for a moment the possibility of your putting on a series of four lectures for members of your department. Let's count on three hours of preparation for each hour of course time — twelve hours of work in total. Say that you have ten students in your class. Next year they will work a total of about twenty thousand hours for your organization. If your training efforts result in a 1 percent improvement in your subordinates' performance, your company will gain the equivalent of two hundred hours of work as the result of expenditure of your twelve hours."

The benefits of ergonomics include reduced musculoskeletal disorder related costs, improved productivity, better product quality, better employee engagement, and a better safety culture.

Ergonomics training is the highest leveraged activity you can engage in that will empower you to realize these benefits at scale.

Develop an Ergonomics Training Plan

Now that we know the who, what, when, where, and why of ergonomics training, it's time to develop a documented ergonomics training plan.

Keep in mind that ergonomics training, like the ergonomics improvement process itself, is a process and not a one-time event.

Ergonomics knowledge and awareness, especially for the people not on the ergonomics team executing ergonomics tactics every day, tends to depreciate quickly.

Ergonomics skills are developed over time as knowledge is put into practice and hands-on application.

This is why an ongoing ergonomics training plan should be part of your ergonomics process that is documented and tracked.

Your training plan should include:

Each role in the ergonomics process

The responsibilities of each role

The training objectives for each role

The training frequency for each role

Only when your ergonomics training plan is on target can you know whether or not your people are properly equipped to execute their role in the ergonomics process.

Remember: knowledge and skills are fundamental to productive work and training is one of your highest leverage activities as a manager.

How to Manage Your Ergonomics Data



Ergonomics software streamlines your ergonomics process, keeps your team on the same page, and automatically measures progress over time. Read this article to learn how you can leverage ergonomics software to save time, get more done, and get the most out of your data.

“The temptation in the existing business is to always feed yesterday and starve tomorrow. It is, of course, a deadly temptation. The enterprise that does not innovate inevitably ages and declines. And in a period of rapid change such as the present ... the decline will be fast.”

— Peter Drucker

Believe it or not, the period of “rapid change” Peter Drucker was referring to was the 1980’s.

Things were certainly moving fast during that time period. Faster than they were before, anyway. But in 1985 when Drucker’s book was published, the internet as we know it was just getting started. The first web page wasn’t built until 1991.

Change has dramatically accelerated since then. To say there is rapid change in today’s world is putting it mildly. But Drucker’s observation about enterprises and innovation is still spot on. It’s even more true today. The enterprise that does not innovate inevitably ages and declines, and that decline will be fast.

Perhaps the biggest contributor to the acceleration of change is software.

Marc Andreessen, creator of the Mosaic internet browser, penned his famous, “Why Software Is Eating the World” essay nearly a decade ago.

“Six decades into the computer revolution, four decades since the invention of the microprocessor, and two decades into the rise of the modern Internet, all of the technology required to transform industries through software finally works and can be widely delivered at global scale.”

He was right. Software is pervasive in everyday life and more so all the time.

At home, you can have nearly anything you want delivered right to your door at the swipe of a finger. You can stream an unimaginable choice and

variety of content to any of the multiple devices you have laying around the house at the touch of a button.

At work, you can meet with anyone in the world at any time just by opening up Zoom or GoToMeeting. You can get in touch with any of your colleagues by opening up Slack or your email client. Your organization has powerful tools to manage customers, allocate resources, manage payroll and employee benefits. All of this information is available to you all of the time. How do you get stuff done at work? You log in.

At home and at work, there is little you do not have access to. You have more knowledge and power at your fingertips than even the wealthiest of kings did for all of time before modern technology arrived.

So why are we still managing ergonomics using outdated and unreliable methods and tools?

Software Needs to Eat Ergonomics

When you're just getting started, it makes sense to reach for whatever tools you have available to you.

With ergonomic risk assessments, this usually means either a paper-based worksheet or an excel spreadsheet that has been created to perform calculations for you.

You needed to do an assessment, so you did some research and found a tool to get the job done.

This works fine for a while! We did the same thing at first.

But we soon realized how problematic paper-based methods and general purpose tools are and how badly software needs to eat ergonomics

The data starts to pile up. You end up with hundreds (and eventually thousands) of files to keep track of. It gets very difficult to compile the data into a coherent monthly or annual report. It's hard to know what the status

[Back to top](#)

of the ergonomics process is. It's hard to keep the ergonomics team on the same page.

Does everyone have access to the information they need? Does everyone know what to do next? Is everyone using the same set of tools?

It's hard to tell with documents and files scattered all over the place.

We kept running into this issue more and more as we managed complex, large-scale ergonomics programs for our clients. When we went looking for a software solution to this problem, we couldn't find anything that worked for us.

We couldn't find one, so we built one.

Benefits of Ergonomics Software

What we've found is that using software instead of outdated tools is just as good as we hoped. There are many benefits to using ergonomics software.

The benefits of a new technology can be measured along the three dimensions of new value creation:

Speed, get it done faster

Before ergonomics software: You want to do a REBA assessment. First, you have to search for the file you need. If you're using a paper-based tool, you have to print it off and walk over to the printer. You do the assessment. Now you have to transfer the data manually or scan the document to get a digital copy.

After ergonomics software: You sign in. Click Add New. Click REBA. Do the assessment. You're done.

How it's better: Using ergonomics software is so much faster and more streamlined. You don't have to waste time hassling with finding, printing, scanning, and saving documents. The next time you need the information from the assessment, you always know where to find it. Everyone on the

[Back to top](#)

team has access to that data, too. You don't have to email the results to communicate. Everything is in one place and everyone on the team knows exactly where to find it. This streamlined workflow results in a massive time savings.

Quality, get it done better

Before ergonomics software: Using paper-based tools or general purpose software creates more surface area for mistakes. If you're using a paper-based tool, you often have to do the calculations yourself. And if you're using general-purpose software like Excel, you'll need to manually transfer data from one place to another to track your workplace ergonomics process. Both of these methods are outdated and unreliable because your manual calculation and data transfer is more prone to errors and mistakes.

After ergonomics software: Results are calculated and saved automatically in the system. There is no need for manual calculations or transferring data from one spreadsheet to the next. Everything is accurate and up to date, always.

How it's better: Using outdated and unreliable methods and tools results in sloppy work. The opposite is true with the modern approach. Using ergonomics software helps you get the job done better.

Output, get more of it done

Before ergonomics software: Ergonomics requires a significant amount of documentation. It feels like a lot of work. And it is when you're doing everything manually. Individual assessments aren't too bad, but what about collecting and combining all of the data you've gathered in order to generate a monthly or annual report? What is the state of your worksite's ergonomics process? It takes quite a bit of effort to put all of this information together to find out.

After ergonomics software: Reports are automatic. Because all of the right data is in the right place, ergonomics software can instantly generate reports and tell you the status of your site's ergonomics process.

How it's better: Not only does ergonomics software help you get the job done faster, but it also helps you get more of it done. The result of a painfully manual process is that many ergonomics teams don't have a coherent view of how they're doing. They don't generate a report at all. It's too much work! Ergonomics software solves this problem by making it automatic so that you get more work done.

Embrace Innovation or Embrace Decline

Digital transformation is a core strategy of most Fortune 500 CEO's today, and for good reason. It's because they know they can either embrace innovation or embrace decline.

It's time for safety and ergonomics leaders to embrace innovation.