Ergonomics 101 – **the science of work**

Ergonomics is the science of work. It's about fitting jobs and tasks to the workplace athlete so they are safer, healthier, more comfortable and more productive. This is part of your company's commitment to providing a safe work environment for all workplace athletes.



The word "ergonomics" comes from the Greek word "ergon" which means work and "nomos" which means laws. You can think of it this way; ergonomics is the science of designing the workplace, keeping in mind the strengths and weaknesses of the human body.

Ergonomics is the science of work. Taking a scientific approach allows us to objectively measure workplace risk factors that lead to fatigue, discomfort and pain for workplace athletes.

The three primary ergonomic risk factors are:

Awkward Postures
Awkward postures place excessive force on joints and overload the muscles and tendons around the effected joint. Joints of the body are most efficient when they operate closest to the mid-range motion of the joint. Risk of MSD is increased when joints are worked outside of this mid-range repetitively or for sustained periods of time without adequate recovery time.

High Force Requirements
Many work tasks require high force loads on the human body. Muscle effort increases in response to high force requirements, increasing associated fatigue which can lead to MSD.

Repetitive Motions
Many work tasks and cycles are repetitive in nature, and are frequently controlled by hourly or daily production targets and work processes. High task repetition, when combined with other risks factors such high force and/or awkward postures, can contribute to the formation of MSD. A job is considered highly repetitive if the cycle time is 30 seconds or less.

Ergonomics is important because when you're doing a job and your body is stressed by an awkward posture, high force requirement, and/or repetitive motions, your musculoskeletal or "movement" system is affected. Bad ergonomics increases fatigue in your soft tissues and your body may begin to have symptoms such as fatigue, discomfort, and pain, which can be the first signs of a movement system disorder.

If you are exposed to ergonomic risk factors over weeks, months and years, fatigue will outrun your body's recovery system. When fatigue outruns recovery over the course of time, a movement system disorder develops.

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The ergonomics improvement process is about defeating the enemy (movement system disorders) by making workplace improvements to work smarter, not harder. Implementing workplace improvements that reduce ergonomic risk factors makes your job safer, more comfortable and more productive. It's the smarter way to work.

The real workplace improvement expert

Do you know who the real workplace improvement expert is?

It's YOU!

That's right. You are the real expert for preventing wear and tear at work. You alone feel the physical stress of your job day in and day out. We would like to know if you think there are any ergonomic risks associated with your job, and what you think can be done to reduce or eliminate any risks.

The Team Member Ergonomics Survey was developed to give you an opportunity to express your ideas and concerns regarding ergonomics. We would love to work with you to identify any potential ergonomic risks present in your job and get your input on improvement suggestions.

You are the real workplace improvement expert, and we need your help! Ask your on-site injury prevention specialist for a copy of the survey. Please take just a couple minutes of your time to help your team win with ergonomics.

Key takeaways

Ergonomics is the science of designing the workplace, keeping in mind the strengths and weaknesses of the human body.

The goal of the ergonomics process is to design jobs and tasks to be safer, healthier, more comfortable and more productive.

You are the real workplace improvement expert. Complete the Team Member Ergonomics Survey to contribute to the workplace improvement process and help your team win with ergonomics.