

WorkWell and
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ERGONOMICS ON-DEMAND!
Ergonomics for Health Care and Safety Professionals

Ergonomics Design Guidelines

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MENU

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ERGONOMICS DESIGN GUIDELINES TRACK

Welcome!

Welcome to the *Ergonomics Design Guidelines Track!*

Hello everyone, I'm Mark Anderson. I am a Certified Professional Ergonomist and Physical Therapist with more than 30 years of experience working with ergonomics in a wide variety of settings.



Questions, Questions, Questions!

One of the things I have discovered in working in ergonomics on an on-going, day-in, day-out basis is you need to be able to answer questions like:

- How high should that workbench be?
- We need a transport cart, what specifications does it need to meet?
- Where should we position the foot and hand controls for that machine?
- How should we position the touch screen monitors on the production line?
- How high should the conveyor belt be?
- How much force is needed to grip a tool and what is acceptable?
- How much weight can a worker reasonably lift?
- What clearance do we need for the operator's feet and legs at the workbench?
- We are setting up a storage racking system, how should we adjust the shelf heights?
- Honestly, the list of questions goes on and on!

I suspect you are getting the point I am making. You become the go-to resource in ergonomics workstation, tool and equipment design.

Ergonomics Defined

In the *Introduction to Ergonomics Track* we defined ergonomics in the systems design context as:

Optimizing all aspects of job performance - safety, quality and productivity - accomplished through the appropriate *DESIGN AND USE* of work processes, workstations, tools and equipment and the overall organization of work.

Design is a critical word in the definition. Over the past 30 years I have been compiling answers to at least some of the questions. Believe me I am still learning everyday as something new pops up!

Honestly, that is what keeps it interesting to me. Like you, I enjoy solving problems and seeing the positive results.

Ergonomics Design Guidelines

At any rate, I have put together a series of *Checklists, Guidelines* and *Specifications* for workstations, tools and equipment in terms of ergonomics.

The *Guidelines* are available to you as a separate document you can print out and/or access as you need.

Table of Contents

Looking at the *Table of Contents* for the *Guidelines* you will see a wide range of topics ranging from Carts to Chairs/Stools to Controls to Conveyors to Fixtures to Grip and Hand Strength to Microscopes to Manual Material Handling to a whole host of Seated and Standing Workstation Guidelines and Specifications.

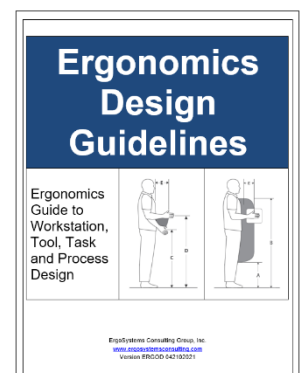


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Welcome to Ergonomics Design Guidelines

Primary Ergonomics Risk Factors

Primary Ergonomics Principles

Carts

- Cart Checklist
- Casters – Additional Information
- Handles – Additional Information
- Technique – Additional Information
- Shelves – Additional Information

Chairs/Stools

- Chair/Stool Checklist

Computer Workstation Guidelines

- Computer Equipment (keyboard, mouse, monitor, touch screen) Checklist

Contact Stress:

- Contact Stress Checklist
- Contact stress – sharp edge
- Contact stress – hard surface

Controls – Hand and Foot

- Hand and Foot Controls Checklist
- Recommended Specifications for Control Location

Conveyors

- Conveyor Checklist

Displays/Monitors

- Displays/Monitors Checklist
- Recommendations for Display Location – Seated and Standing

Environment

- Auditory, Temperature and Visual Checklist
- Auditory
- Temperature

Fixtures

- Fixtures Checklist

Floor: Anti-Fatigue Mats/Shoe Insoles

- Anti-Fatigue Mats/Insoles Checklist

Grip and Hand Strength

- Grip and Hand Strength Checklist

Hand Tool Design and Selection

- Tools: Checklist
- General tool guidelines

Machine Clearance and Maintenance

Accessibility Guidelines

- Machine Clearance and Maintenance Accessibility Checklist
- Accessibility
- Access Doors/Ports
- Fasteners
- Accessibility for Maintenance

Manual Material Handling Guidelines

- Manual Material Handling Checklist

Microscopes/Magnifiers

- Microscopes/Magnifiers Checklist

Neutral Posture

Reach Zones (Comfort and Functional)

- Comfort Reach Zone
- Functional Reach Zone

Shelves and Racks

- Shelves Checklist

Workstation Types and Characteristics

- Workstation Checklist
- Workstation Selection Characteristics for Sitting and Standing Workstations
- Seated Workstation Guidelines
- Seated Workstation Specifications
- Standing Workstation Guidelines
- Standing Workstation Specifications
- Sit/Stand Workstation Guidelines

Glossary

Accessing the Ergonomics Design Guidelines

When thinking how best to introduce the *Ergonomics Design Guidelines* to you, I knew for sure I did NOT want to go through each and every Checklist and Specification with you!

I don't think I would be awake at the end and I'm sure you would not be.

Instead, I would encourage you to browse the *Ergonomics Design Guidelines* to get a sense of what is included. You may have noticed in the other Tracks, I reference the *Guidelines* as appropriate. As you continue to work in ergonomics, please access the *Guidelines* as you run across questions that you need to answer.

I can't guarantee every question is answered, but I hope it provide some answers. Remember to always use your professional judgement when making use of the information.

Thanks for your time and attention!