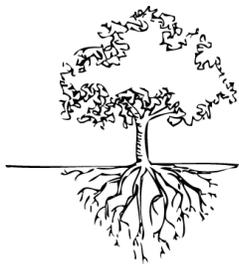# Perpetual Ergonomics

Vol. 1

An Essential WorkWellness Toolkit

Essential WorkWellness

A comprehensive guidebook for implementing a participatory ergonomics program in the workplace

WELCOME!

Welcome to the Perpetual Ergonomics Toolkit.

The *Perpetual Ergonomics Toolkit* will take you step-by-step through the basic elements of developing an ergonomics program, including hazard assessment, incident and near miss reporting, risk control and statistical tracking. Forms and checklist templates are provided for each phase of program development. The Toolkit also includes assistance for documenting program outcomes and continuous process improvement. Knowing where to start requires first knowing where you're going. Then all you need is the map to get you there. The Perpetual Ergonomics Toolkit is your map.

Whether seeking to develop an injury reduction program as part of regulatory requirements, or simply as best practices, the Perpetual Ergonomics Toolkit will guide you through the process.

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Introduction

The Perpetual Ergonomics Toolkit is designed as a step-by-step guide to creating a safety program that identifies, addresses and manages risks for work-related musculoskeletal disorders (WRMSD) among workers. The approach to ergonomics can be either *proactive* or *reactive*. A reactive approach means fixing something or making corrections after a problem has occurred, while a proactive approach seeks to identify and improve a situation before it becomes a problem. It is likely that most employers will be starting from a reactive approach. In time, however, your Perpetual Ergonomics efforts will set the stage for a proactive system of best practices for worker safety. Management commitment, worker participation and adequate staff training are critical to the success of the program, as are procedures for identifying, evaluating and remediating risks for WRMSD. Included with the Perpetual Ergonomics program is a "toolbox" of techniques, templates and resources to assist in the development of a WRMSD avoidance program.

Musculoskeletal disorders include injuries to nerves, muscles, tendons, cartilage, spinal disks and joints. A work-related musculoskeletal disorder occurs when the work environment or tasks contribute to or worsen the symptoms.   Work-related musculoskeletal disorders (MSD) among U. S. workers accounted for 31 percent of all injury and illness cases in 2015, according to the Bureau for Labor Statistics. Health care and social assistance, retail and manufacturing workers incurred the highest number of MSD cases reported in 2015. The most common types of injuries or illnesses were sprains, strains, tears regardless of industry or gender. Workers who sustained MSDs required a median of 10 days away from work to recuperate, compared with 8 days for all types of cases reported.[1] The financial and productivity burden of these injuries is becoming prohibitive, and the personal cost to the individual is life altering.   Furthermore, every employer has a legal obligation to provide and maintain a safe and healthful workplace for his or her employees, according to the Safety and Health Act of 1970.[3]

While the level of risk for WRMSD depends on the intensity, frequency and duration of exposure to risk factors, it is also influenced by the individual worker's capacity to meet the demands of the job. When the demands of the job exceed those capabilities, whether through intensity, frequency or duration of exposure, work-related musculoskeletal disorders occur. Implementing an ergonomics or injury reduction program assists in fitting the demands of the job to the capabilities of the

worker.   Effective ergonomics programs assure optimal productivity, avoidance of injury and increased satisfaction among workers.

Cost of Injuries

Musculoskeletal disorders cost workers and employers an estimated $50 billion annually by way of lost wages, decreased productivity and increased worker's compensation costs.[2]

Direct costs for WRMSD include medical bills and time loss payments, while indirect costs include expenses such as lost productivity, absenteeism, increased worker's compensation insurance premiums and time and money spent training new workers. For every dollar spent on the direct costs of a worker's injury, it is estimated that four times that amount is spent on indirect or hidden costs. [4] Consider what one worker injury would cost your organization in terms of:

- Decreased productivity by injured employee due to time loss, restricted duty or reduced performance
- Productivity time lost by supervisor managing the injury process
- Cost of time spent by Risk Management/HR staff to complete paperwork generated by the incident
- Cost of continuing all or part of the employee's wages, in addition to medical expenses during time loss related to employee injury
- Time to hire or to retrain other individuals to replace the injured worker until his/her return
- Cost of wages for replacement staff during time loss of injured employee
- Reduced morale among remaining staff, potential for increased staff turnover and lower efficiency
- Increased workers' compensation insurance rates (based on historical numbers of injuries)

Getting Started

Developing an injury reduction program requires identifying what needs to be done to promote the safety and health of your employees and worksite, and then outlining policies and procedures to achieve safety and health goals. Bringing in an outside expert for consultation and assistance with getting started may speed up the process while you develop in-house expertise. However, this book is designed to guide you through the process step-by-step, whether doing it on your own, or with the guidance of ergonomics professional.

Before getting started, you should have a basic understanding of what WRMSD are and how they affect the workforce. WRMSD are defined by the Occupational Safety and Health Administration (OSHA) as disorders of the muscles, nerves, tendons, ligaments, joints, cartilage or spinal discs to which the work environment and work tasks significantly contribute, or are made worse by work conditions. WRMSD reduce the productivity and satisfaction of workers, and are the most prevalent injuries to result in time loss. An online learning activity on ergonomic awareness can be found at:

http://www.lni.wa.gov/safety/trainingprevention/online/courseinfo.asp?P_ID=134

Step 1: Know Where You're Starting From

In order to get to where you're going, you have to know where you're starting from. Use this important step to discover what goals should be set and identify the internal resources you have available to assist you in achieving them.

Start by evaluating your facility's current safety and ergonomics program status.

- Do you have an active safety and ergonomics program in your facility?
- Is one person clearly responsible for the overall activities of the program? If so, who?
- Do you have a procedure for handling employee concerns regarding safety and risks for work-related injury? Is it being used effectively? If not, what are the barriers to using it?
- Are you keeping your employees advised of the efforts and accomplishments you and/or your safety committee have made to assure they will have a workplace that is safe and that there is a system in place for reporting risks, injuries and near misses?

Take note of any deficiencies in this area so you can be sure to incorporate them into your program development.

Next find out what company-wide general safety and ergonomics policies already exist.

- Who oversees your company's general safety and ergonomics policies? (Employee health, Occupational Medicine, Human Resources, Risk Management, etc.)
- Is there a safety committee or group made up of management and labor representatives that meets regularly and report on its activities in writing? Is your work group/site represented?
- Do they have a procedure for handling in-house employee complaints regarding safety and risks for work-related injury? If so, get a copy of it.
- Who is involved in injury investigation and follow up? Get to know them.

Culture of Safety

A **culture of safety** is the *shared commitment between management and employees to ensure the safety of the work environment*. A culture of safety permeates all aspects of the work environment, and encourages every individual in an organization to embody a level of awareness and accountability for safety and work wellness. Employees perceive the presence of a culture of safety based on multiple factors, including:

- Actions taken by management to improve safety
- Worker participation in planning safety-related policies
- Availability of written safety guidelines and policies
- Availability of relevant safety devices and protective equipment
- Attitudes regarding safe practices

All of these factors serve to communicate the organization's attitude and commitment to safety. In a positive culture, safety is valued as an organizational priority, even at the expense of "production" or "efficiency." When a culture of safety is maintained, the result is evidenced by:

- Strong safety programs with ongoing activities of continuous improvement
- Shared values, beliefs and behaviors supporting worker wellness at all levels
- Management involvement with a commitment to safety supported at the highest level of the organization
- High regard for safety programs and their leaders
- Candid and frequent safety-related communications between workers and management
- Care of equipment rather than "push til it breaks" mentality
- Infrequent unsafe acts
- Strong safety training and safety communications programs
- Worker confidence in the ability to report concerns without repercussion
- Problem-solving focuses on improving the process rather than blaming the individual
- Improved productivity

If you're not sure what the perception of your employees is regarding the culture or safety in your facility, or you want confirmation that your perception matches theirs, you can conduct an anonymous survey of your staff. See the **Resources** list in **Appendix C** for a link to a Culture of Safety Questionnaire.

Step 2: Safety Policy Statement

Based on the information discovered in Step 1, you may either be modifying an existing safety program or starting from scratch. Generally speaking, the goal of your program is to focus on the interactions between the demands of the work and the worker's capabilities in order to find a balance that optimizes

productivity, yet preserves the safety and health of the workforce. To begin, you'll want to write a Safety Policy Statement that reflects your goals and objectives.

Management commitment is perhaps the most influential factor in determining the success of a workplace safety and ergonomics program.   A Safety Policy Statement sets the tone of management's commitment toward maintaining a safe and healthy work environment for all employees. Begin by deciding exactly what you want to accomplish, and then determine what steps are necessary to achieve your goals. Goals establish the direction of the program and state clearly what you want to achieve with the program. Goals should be specific to your facility and in line with the overall safety intentions of the organization. The most rewarding goals are those that are achievable, but somewhat challenging to complete. Objectives outline the specific actions that will be taken in order to achieve your stated goals. The best objectives are those that can be measured or in some way demonstrated as completed.

Before you begin, review your organization's mission statement, vision statement, values and standards, and tie these in with your own goals and objectives. This becomes your Safety Policy Statement. It is recommended that you do not move on to Step 3 before writing your Safety Policy Statement. A **Sample Policy Statement** can be found in the Perpetual Ergonomics Toolbox Appendix A-1.

APPENDIX A: Toolbox

A2: Work-related Symptom Survey

Shift hours and days _____ Total hours per week _____

Job duties/responsibilities:

_____

_____

Time on this job _____ Other jobs in last year? _____

If yes where _____ Job title _____

1. Number of years working in your current profession.

1   2   3   4   5   6   7   8   9   10 or more

2. Do you have any injury symptoms related to your present job?

0   1   2   3   4   5   6   7   8   9   10

None   **Some**   **A lot**

3. If yes, how often?

☐ Seldom   ☐ 2-3 times per week   ☐ 4 or more days per week

4. If yes, number of years working in pain.

1   2   3   4   5   6   7   8   9   10 or more

5. On a scale of zero to ten, zero being no pain, and ten being the worse pain imaginable, how would you rate your pain? _____

6. Body parts affected. (Check all that apply)

☐Neck   ☐Upper back   ☐Mid back   ☐Lower back

☐Right shoulder   ☐Left shoulder   ☐Wrist(s)   ☐Hand(s)   ☐Other_____

7. Have you taken time off from work because of your symptoms? ☐Yes   ☐ No

8. If yes, did you use:

   ☐Sick time   ☐Vacation time   ☐Time without pay   ☐Worker's Comp

9. Have you received medical treatments for your symptoms? ☐Yes   ☐ No

10. If yes, did you use:

   ☐Personal medical benefits   ☐Worker's Comp medical benefits   ☐Pay out of pocket

11. Have you had any work safety training in the past for the job you are currently performing?

0	1	2	3	4	5	6	7	8	9	10
None					**Some**					**A lot**

12. How EFFECTIVE was any prior training in helping you know how to change how you do your job in order to avoid injury?

0	1	2	3	4	5	6	7	8	9	10
Very					**Average**					**Very**
Poor										**Good**

13. What is your level of knowledge of postural alignment as it relates to work safety?

0	1	2	3	4	5	6	7	8	9	10
Very					**Average**					**Very**
Poor										**Good**

14. What specific task related to your job aggravates your symptoms the most?_____
_____

15. Please comment on what you think would improve your symptoms

_____
_____
_____

A-6: WRMSD Near-Miss Hazard Reporting Form

Name (Last, First, MI)	Title
Department	Phone number
Name(s) of others involved or witnessing	Title of other person(s)
Department	Phone number
Date & time of incident/observation Date_____ Time_____ am/pm	Near-miss/Hazard location (Bldg name, room #, hallway location, etc)

Near-miss/Hazard description –use additional pages, if necessary
(Detailed description of protocol/procedure being performed, equipment being used, other factors influencing risk for WRMSD)

Cause of risk—in your opinion
(For example: protocol not followed, equipment faulty/inadequate, protocol/procedure needs revision, additional training needed)

Severity—Circle the level of severity *you feel* could occur if such an incident resulted in a WRMSD—this is just your best guess

HIGH	**MEDIUM**	**LOW**	**DON'T KNOW**
Permanent disability	Temporary disability	Minor injury	
High dollar loss	Some dollar loss	No dollar loss	

Probability—Circle the level of probability that *you feel* this hazard could result in a WRMSD

HIGH	**MEDIUM**	**LOW**	**DON'T KNOW**
Task occurs frequently	Task occurs on regular basis	Task occurs infrequently	
Majority of staff perform task	Only certain staff perform task	Few individuals perform task	

Suggested solutions—Please describe any ideas you have that would reduce the hazard identified, e.g. additional training, change of protocol or scheduling, additional equipment.

Submitted to (Last name, First name)	**Title**
Follow up action	**Date**

Please keep a copy for your records

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APPENDIX C: Resources

General Safety/Ergonomics

Culture of Safety Questionnaire
Link: http://www.essentialworkwellness.com/resource.asp

Human Factors and Ergonomics Society
http://www.asse.org

The American Society of Safety Engineers
http://www.asse.org

Online videos

Ergonomics Awareness : For Employees and Supervisors
Describes musculoskeletal disorders and the importance of early reporting of symptoms. Explains work-related causes of musculoskeletal disorders (WMSDs), including awkward postures, high hand force, repetitive motions, repeated impacts, lifting, and vibration from tool use. Identifies hazards and common measures to reduce them.
Free download: https://fortress.wa.gov/lni/shrl/VideoDetails.aspx?VideoID=924

Dr. Ergo
Humorous version of Ergonomics Awareness with Dr. Ergo who demonstrates work-related causes of musculoskeletal disorders and suggests simple solutions.
Free download: https://fortress.wa.gov/lni/shrl/VideoDetails.aspx?VideoID=1114&KeepPB=1

Back Your Back : Back & Muscle Injury Prevention
Explains the potential causes of back injuries, and discusses ways to prevent back pain. Covers establishing load capabilities and proper positioning. Slides to Video format. *Permission is granted to duplicate this tape in its entirety only for non commercial purposes.
Free download: https://fortress.wa.gov/lni/shrl/VideoDetails.aspx?VideoID=146&KeepPB=1

Working With Stress
Overview of job stress and how it affects job productivity. Can be used as orientation video for administrators and supervisors. Produced by CDC and can be viewed online at
http://www.cdc.gov/niosh/docs/video/stress1.html Permission is granted to duplicate this tape in its entirety only for non-commercial purposes.
Free download: https://fortress.wa.gov/lni/shrl/VideoDetails.aspx?VideoID=986