By the end of this presentation you will be able to:

- Identify the elements of the law
- Identify the training requirements
- Define ergonomics and its benefits
- Recognize signs and symptoms of early injury
- Identify work activities that can lead to injury
- List examples of ergonomic principles that reduce risk of injury
Maine VDT Law

- MRSA Title 26 – Labor and Industry
- Chapter 5 – Health and Safety Regulations
- Sections: 251 and 252 – Video Display Operator
- Effective date: January 1, 1992
Section: 251 Definitions

• **Bureau** – Bureau of Labor Standards

• **Employer** – Uses 2 or more terminals

• **Operator** – Four consecutive hours daily

• **Terminal** – Video display terminal
  
  *(Does not apply to television, oscilloscopes, cash registers, or money typewriters)*
Section: 252 Education

• Training requirements
  ▫ Under 5 employees **MAY** be only written
  ▫ 6 employees or more **MUST** be oral and written

• Training schedule
  ▫ Within the first month of hire
  ▫ Annually thereafter
Training Program Requirements

• Notification of rights by posting the law and poster that explains these rights and duties in plain language. (available from Bureau of Labor standards – 624-6400)
• Explanation of the proper use of the terminals
• Protective measures to avoid symptoms
• How to achieve and maintain proper posture
• How to adjust your workstation equipment
Definition of Ergonomics

- **Ergonomics**: It is the science and practice of designing jobs and workplaces to match the capabilities and limitations of the human body.

- **Ergonomics means**: fitting the job to the worker.
Benefits of Ergonomics

• Ergonomics helps to prevent injuries

• Ergonomics has other benefits:
  ▫ Improved quality of work
  ▫ Improved quality of life
  ▫ Reduced fatigue and discomfort
Safety, Health and the VDT Law

• Education on injury prevention is an important part of safety and health

• There are thousands of injuries, known as WMSD’s, in Maine each year

• *(WMSD: Work-related Musculo-Skeletal Disorders)*
What are Work-related Musculo-Skeletal Disorders (WMSD’s)

• Also known as:
  ▫ Cumulative Trauma Disorders
  ▫ Repetitive Strain Injuries
  ▫ Overuse Injuries

• Usually develop gradually, but sometimes can appear suddenly

• Can be serious, if not taken care of early
What are Symptoms of WMSD’s?

• Discomfort, pain, dull ache
• Decreased range of motion, tightness
• Numbness, tingling
• Change of color
• Swelling of joint or limb
• Decreased grip strength
What Causes WMSD’s?

- Repetitive motion
- Forceful exertion
- Awkward posture
- Mechanical pressure
- Cold temperatures
- Stress

- Nutritional deficiencies
- Poor lighting
- Prolonged standing in one place
- Sitting (poor posture)
- Working with neck flexed
Will it happen to me?

Factors

- Age
- General health
- Heredity
- Posture
- Diet
- Activities
WMSD Injury Depends On!

- Duration of exposure (how long) – usually need hours of exposure before risk factors become a concern.
- Frequency of exposure (how often)
- Intensity of exposure (how much)
- Combinations of factors
Awkward Postures
Awkward Postures
Awkward Postures
Solutions: Static Postures

• Foot rests, shifting weight

• Well designed, adjustable, supportive seating

• Work surfaces at appropriate height

• Change positions frequently

• Routine stretch breaks
Neutral Posture

• Head centered over shoulders
• 90° angle for arms
• 90° angle for legs
• 90° angle for torso
Solutions: The Chair

- The right size
- Lumbar support
- Proper height
- Armrests (removable)
- Pan
- Good foundation
- Adjustable while sitting or seated
Adjustments

- Backrest
- Lumbar support
- Seat
- Height
- Foundation
- Armrest
Armrests

- Relaxed
- Armrest too High
- Armrest too High & Wide
Base of Chair

- Correct Casters
- 5 Point Suspension
Shoulders
Solution: The Monitor

- The monitor should be directly in front of you
- Top of screen should be eye level
- A copy stand should be adjacent to or in front of the monitor
- Adjust brightness and contrast
Monitors
Options

- External keyboard
- External mouse

- Space saver
- Low glare
Monitor Riser

- Up and back
- Down and forward
- Up in place
Glare
Placement
Not good

Not good
Solution: The Keyboard

- Spread keyboard work throughout the day
- Use macros for common functions
- Take stretch pauses
- Improve your posture and move around as much as possible
Keyboard Trays

- No lever
- Difficult places
- Keyboard swivels
- For curves Knee clearance
Keyboards

- Wrist bent to side
- Wrist bent upward
Alternatives
Wrist

• Not good

• Not good
Wrist

- Good
Compromise

- Chair height

- Chose right height for the keyboard
Mouse / Pointer
Alternatives
Support
Mouse Placement

- Not Good

- Not Good
Mouse Placement
You, Keyboard, Monitor
Solution: Lighting

• Bright lighting may “wash out” the image making it hard to see which will cause eye fatigue.
• Lighting should be indirect or “task lighting” should be used to reduce wash out or glare.
Solution: Glare

- Screen 90° angle to window
- Drapes or blinds
- Avoid bright lights
- Screen hood
- Walls, work surfaces non-reflective
- Keep screen clean
- Adjust color, contrast, and brightness
Solutions: Workspace and Other Devices

- Workspace
- Document holders
- Telephones
- Stretching
- Office Environment
Where Should it Be?
Document Holders
Choices

- Okay
- Best
Telephones
Talking

- Not good
- Very good
Work Area
Organizers
Organizers
Stretches

• Relieves static posture

• Keeps fluids circulating

• Prevents toxins from building up in tissues
Change Positions
Stand-up Workstations
Sharing Workstations
Office Environment
Lighting
Stress
Environment

• Air conditioning

• Air circulation
What Can You Do?

• Recognize and report symptoms

• Get involved in ergonomics

• Perform an Ergonomic Risk Assessment
Ergonomic Risk Assessment

• Identify the Hazards – use the attached checklist.
• Assess the Risk – how often do you do your job, your health, posture, workstation evaluation (attached).
• Control the risks – Adjust your workstation to fit your ergonomic needs.
Symptom Recognition and Reporting

• Report symptoms if:
  ▫ Pain is persistent, severe or worsening
  ▫ Pain radiates
  ▫ Symptoms include numbness or tingling
  ▫ Symptoms keep you from sleeping at night
Why is it Important to Report Symptoms?

• Chronic symptoms can lead to disabling injuries, even surgery

• Early treatment is more successful
Work Process

- Even when the workstation design and environmental factors are at their best, a worker can suffer discomfort and injuries from factors related to the work process.
Five Key Points to Remember

- Ergonomics can help you on your job and at home
- WMSD’s can happen in jobs with risk factors
- Risk factors can be reduced and WMSD’s prevented
- Reporting symptoms early is important
- You can help by following good ergonomic practices
Getting Assistance

- Your supervisor
- MDOL/Bureau of Labor Standards
  Telephone No. 623-7900
  Fax No. 624-6449
  www.safetyworksmaine.org
  Keys to Your Good Work -Publication
- OSHA –
  www.osha.gov/SLTC/etools/computerworkstations
- OSHA – www.OSHA.gov
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