Design Document

Training Title: Introduction to Body Mechanics and Ergonomics

Business Goal and Problem	**Business Problem(s):** There is a lack of education about body mechanics, proper lifting techniques, and ergonomics. Therefore, company employees have a high rate of absenteeism which results in low productivity and/or reduced work hours. There are also high rates of insurance claims among employees related to musculoskeletal disorders. **Goal:** The goal is to reduce the injury rates by improving the safety of employees in the workplace to increase productivity. Over the next 12 months, employees will increase the proper use of ergonomic tools by 50%. This, in turn, will positively affect insurance premiums when fewer employees pursue health care due to injuries related to poor posture, lifting techniques, and or ergonomics.
Target Audience	Current employees with health insurance provided by the company. Company provides incentives for employees to enroll in the Wellness Program to educate and reduce health risks. The demographics of the employees are diverse. They range anywhere between age 25 - 60 and may be new or veteran employees.
Learning Objectives	**Terminal LOs:** Use proper body mechanics when working in an office setting. Utilize proper form when lifting heavy items. Implement ergonomics in daily work practices.
Training Recommendation	**Delivery Method:** e-Learning Storyline **Approach:** Continuous scenario-based module with a scenario-based final assessment
Training Time	18 minutes
Deliverables	Published SCORM file, e-Learning .story file, storyboard, job aid quick reference to ergonomics with stretches
Training Outline	Welcome Navigation guide Learning Objectives • Use proper body mechanics when working in an office setting • Utilize proper form when lifting heavy objects • Implement ergonomics in daily work practices Subtopic 1: Body Mechanics • Maintain three natural curves of the spine (From a side view - a straight line can be seen from ear to ankle when in proper posture) ▪ Thoracic curve - space between your neck and the abs - chest out ▪ Lumbar curve - this part connects your abs to your lower body- stand against the wall, there should be space between your back and the wall ▪ Cervical curve - better known as the neck - slightly curved inward to create an S curve • Slide chair under the desk; avoid leaning over your work

- Stretch every 30-60 minutes
    - Stretches for different muscle groups (two examples each)
        - Neck, shoulders, back, hips/glutes, hamstrings, and arms

Subtopic 2: Proper Lifting Techniques

- Get help if load is too heavy
- Lift with your legs and not your back
- Keep the load close to your body
- Bend at the hips and knees

Subtopic 3: Ergonomics

- Ergonomics is the study of work and the science of designing the job to fit the worker
- Adapting tasks, work stations, tools and equipment to fit the worker can help reduce physical stress on a worker's body and eliminate work-related musculoskeletal disorders.
- Workspaces should be modified to fit the worker even if the job is only temporary. Think of it like driving a rental car. You always adjust the mirrors and seat when driving a car even if it's only for a short period.

Standing Workstation

- Arrange your workstation so that you can easily reach all frequently used items without twisting, bending or excessive reaching.
- Place the telephone on either the left or the right side of the monitor.
- Use a headset if you frequently use the telephone in combination with computer use or writing.
- Remember to perform occasional stretches at your workstation to reduce stress and improve circulation.

Sitting Workstation

- Working tables and benches should be adjustable.
- Use standing workstations that have built-in foot rails or portable footrests to allow the worker to shift body weight from one leg to another.
- Elbow supports for precision work help reduce tension in the upper arms and neck.
- Controls and tools should be positioned so the worker can reach them easily without twisting or bending.
- A seat should be provided to allow the worker to occasionally sit. Taking breaks to sit will expand the variety of body positions and flexibility.

Other Items: Placement of commonly used office items

- Chair
    - Make sure the chair provides adequate back support.
    - Position the chair directly under the work-station.
    - Chair height should be positioned so elbows are at 90-degree angle at the elbow when placed on the work surface.
    - There should be an adequate base of support for feet to be placed flat.
- Monitor
    - The monitor should be positioned directly in front of you when seated.
    - Make sure the top of the monitor is level or slightly below your horizontal eye level.
    - The monitor should be at an arm's length distance when sitting back in your chair.
- Mouse
    - The mouse should be positioned at the same height and in close proximity to the keyboard.
- Lights
    - Make sure lighting is adequate.

	○ Keep the monitor screen free of glare. Summary Final Quiz ● 5 questions Congratulations
Assessment Plan	**Level 2 Assessment:** Final assessment will be scenario-based with 5 questions (multiple-choice, matching, and multiple-answer) with a required 80% to pass. Learners will have unlimited attempts to pass the quiz. **Level 3 Assessment:** Employees will take a survey post-training to gather information about which strategies they intend to incorporate into their daily work practices. Supervisors will track observations of employees using ergonomics in day-to-day work practices including proper posture, proper lifting techniques, and use of ergonomic tools . Observations will be completed 1 month, 3 months, and 6 months post-training to track changes and progress related to ergonomics.