Group No:

• Group members
What is Ergonomics?

It is . . . fitting the work to the worker

- Ergon = Greek for “work”
- Nomos = Greek for “laws of”
- The Study of Work
- Applies both on and off the job
Benefits of Ergonomics

- Decreased injury risk
- Increased productivity
- Decreased mistakes/rework
- Increased efficiency
- Decreased lost work days
- Decreased turnover
- Improved morale
Ergonomic Risk Factors

- Repetition
- Awkward posture
- Forceful exertion
- Static posture
- Mechanical contact
- Stress
- Temperature
- Vibration
Ergonomic Controls

• Engineering
  – Modify the tool or work area design

• Administrative
  – Don’t do one thing too long

• Work Practices
  – Use the right tool
Ergonomic Products, Gear and Equipment

Electronic Gadgets
Computer Gear
Office Supplies
School Supplies
Kitchen Gadgets
Lawn & Garden Tools
Fitness Gear
Ergonomic Food
Home Improvement Tools
Ergonomics for power computer users

- Correct ergonomics are very important, wrong postures and sitting may lead to serious injuries.
**Usual Zone:** This area should contain only items that are used most frequently, e.g. keyboard, mouse, note pad.

**Occasional Zone:** This area should contain items that are used periodically, e.g. telephone, calculator, in-out tray, rolodex.

**Rare Zone:** This area should contain only items that are seldom used or for display only, e.g. pen/pencil cup, desk plant, photos, clock.
**STAND** in front of the chair. Adjust the height so that the seat is approximately at knee level.

**SIT** so that the space between the front edge of the chair and the lower part of the legs just fits a clenched fist.

**ADJUST** the backrest of the chair so that it supports the curve in the lower back.

- Backrest height adjustable
- Backrest forward/backward adjustable
- Swivel 360°
- Height adjustable
- Non-slip surface
- Minimum 5 rungs on wheels
1. Use a good chair with a dynamic chair back and sit back in this.
2. Top of monitor casing 2-3" (5-8 cm) above eye level.
3. No glare on screen, use an optical glass anti-glare filter where needed.
4. Sit at arms length from monitor.
5. Feet on floor or stable footrest.
6. Use a document holder, preferably in-line with the computer screen.
7. Wrist flat and straight in relation to forearms to use keyboard/mouse/input device.
8. Arms and elbows relaxed close to body.
9. Center monitor and keyboard in front of you.
10. Use a negative tilt keyboard tray with an upper mouse platform or downward tilt able platform adjacent to keyboard.
11. Use a stable work surface and stable (no bounce) keyboard tray.
12. Take frequent short breaks (microbreaks).
Tilt the work surface instead of the wrist.

Stand with weight evenly distributed between feet. When standing for long periods of time, rest one foot on a sturdy object above floor height and switch legs periodically.
Keep elbows close to the body.

Reduce the need for outstretched arms. Use a higher work surface.
Avoid bending over your work.

Avoid overhead work. Use a ladder.
Bend the tool, not the wrist.

Use tools that distribute pressure evenly across the palm.
Squatting

When possible, avoid squatting

Better . .

Use tools or extensions that allow you to stand upright

Consider using a long handle tool
Highly repetitive motion

Better . .

- Use properly designed ergonomic tools
- Vary your motions
- Rotate to other tasks
Using the knee/hand as a hammer

Better...
Use a mallet
Use a tool
Moderate to High Hand - Arm Vibration

Better . .

✓ Use low vibration tools if available
✓ Maintain tools
✓ Use anti-vibration gloves or tool wraps
✓ Take frequent pauses
✓ Stretch your hands and arms
Lifting

• Size up the load

• If too heavy for one person, get help!

• Lift together or use mechanical assistance
Lifting Safely
Unsafe Lifting Techniques
Pushing and pulling

Has potential for straining arm, shoulder and neck muscles

Use your legs and tighten abdominal muscles
Work Smarter – Not Harder

✓ Notice and report symptoms EARLY
✓ Stretch
✓ Take adequate and frequent breathers
✓ Do a different task or do the task differently