

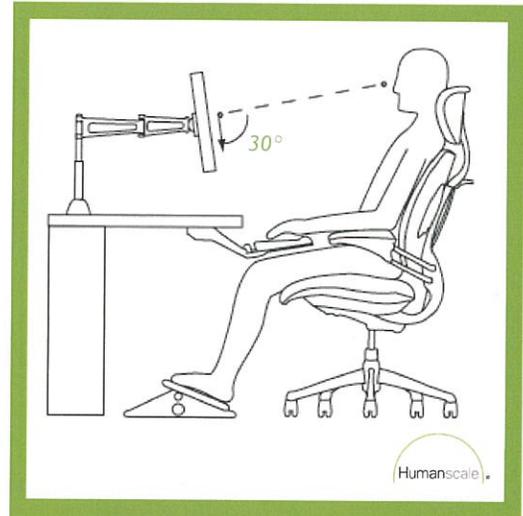
## ERGONOMICS... FITTING THE JOB TO THE WORKER

Musculoskeletal injuries can affect your body's muscles, joints, ligaments, tendons, and nerves. Most musculoskeletal injuries develop over time and can often be the result of repetitive stresses, awkward positions, or excessive use of force. Symptoms can include pain, discomfort, stiffness, swelling, or a decreased sense of touch or manual dexterity. Ergonomic principles can be used to help minimize the risk of musculoskeletal injuries. Ergonomics seeks to adapt the job to the person instead of the person to the job. This can be accomplished by designing tasks, workstations, tools, and equipment that are within the worker's physical capabilities and limitations.

An Ergonomic Subcommittee exists here at the lab to help deal with important ergonomic issues and assist employees with incorporating ergonomic principles into their day to day activities. The subcommittee includes a member from each division/section.

<http://www-esh.fnal.gov/pls/default/committees.html>

Please contact your division/section representative for assistance in applying ergonomic principles into your work or to report any ergonomic related issue or concern.



The figure above is an example of many of the ergonomic principles being applied in a well designed computer workstation. Please see a detailed description of the ergonomic principles for the computer workstation below.

Also, please remember to report any pain or discomfort that you feel may be related to your work to the Medical Department or your supervisor.

### *Ergonomic Principles for the computer workstation*

- *Adjust seat height so that your thighs are parallel to the floor & your feet are flat on the ground or foot rest*
- *Adjust seat pan depth so there is a minimum of 2" between the back of your knees and front of your chair*
- *Adjust backrest height to provide lumbar support*
- *Unlock back rest to allow recline and adjust the tension control as required*
- *Sit in a neutral position, as demonstrated in the figure, with arms and shoulders relaxed*
- *Position keyboard 1-2" above thighs*
- *While typing, keep wrists in neutral position and use palm support when paused (support palms only)*
- *Position mouse as close to the keyboard as possible and avoid anchoring the wrist or elbow*
- *Position monitor at least an arm's length away with the top line of type at eye level*
- *Minimize glare by avoiding reflection and backlighting and use task lighting when necessary*
- *Position frequently used materials within arms reach to avoid excessive reaching or twisting*
- *Take frequent breaks to allow your body to recover including resting your eyes on close and distant objects*