

General Considerations for Measures of Workstation Layouts

When judging the adequacy of work spaces, consider the following:

- The physical makeup of the worker population;
- The specific body parts involved in particular tasks;
- Whether the workstation features are fixed or adjustable.

It is common to find workers who do similar work but differ in height, weight, and other body dimensions. Problems occur when workstation features (e.g., bench/desk height, access to tools, space clearance) do not fit the range of body sizes.

The following are indicators of potential problems with workstation design:

- Workers constantly bending over a work surface;
- Workers stretching to reach needed parts;
- Workers assuming awkward postures;
- Workers having insufficient leg room under work tables.

Workstation layout must accommodate body size characteristics of the workforce and, of course, adjustable workstation features make it easier. In either case, some general guidelines are as follows:

- Do not place needed tools or other items above shoulder height;
- Position items for the shortest arm reach to avoid overstretching while reaching for an item;
- Keep frequently used tools or items close to and in front of the body;
- Position items for taller worker so that workers do not have to bend while reaching down;
- Keep items to be lifted between hip and shoulder height.

Computer Workstation Measures and Design

For guidelines on computer workstation measures and recommended design features, please see [ANSI/HFES 100-2007 Human Factors Engineering of Computer Workstations](http://www.hfes.org/publications/ProductDetail.aspx?ProductId=69). [link to <http://www.hfes.org/publications/ProductDetail.aspx?ProductId=69>]

The diagram below describes optimum layouts for seated and standing work.

For standing work involving precision, light assembly, and heavy duty tasks, the range of work surface heights must accommodate all but extremely tall or extremely short workers, regardless of gender. If a work surface height is not adjustable:

- Use a platform to raise a short worker, or
- Use a pedestal to raise the height of the work item or of the work surface for a taller worker.

For seated work, take into account the range of functional reaches for most of the working population. Tabletop work surface should be divided into primary and secondary task areas:

- Primary area = space for doing usual or frequent work activities;
- Secondary area = space for doing occasional work activities.