

Office ergonomics: sit-stand devices

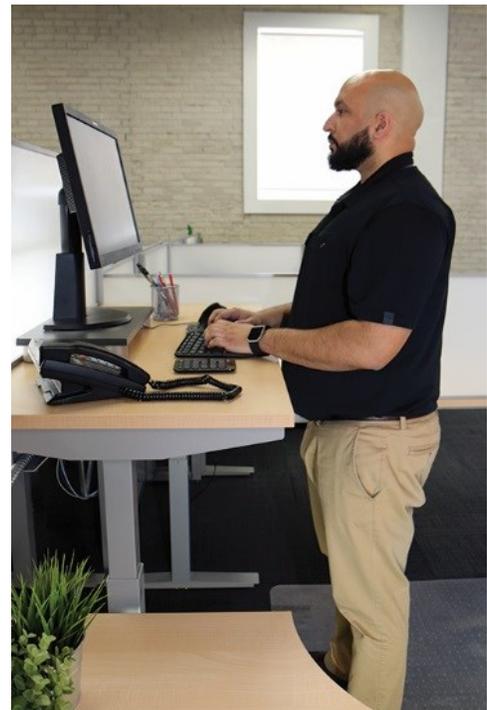
What is a sit-stand device?

A sit-stand device allows a worker to alternate between sitting and standing at their workstation.



Why should I choose a sit-stand device for my office workstation?

Alternating between sitting and standing and moving more often while working in an office environment has been shown to have health benefits. Recent studies indicate that prolonged sitting can contribute to metabolic disorders, circulation issues and even some cancers, and prolonged standing can lead to circulation, foot and leg issues.



What do I need to consider when choosing a sit-stand device?

a. Height ranges

It is important to consider the height range of the worker when setting up a workstation to accommodate sitting and standing.

About 95 per cent of the population will be able to use a device that can be adjusted between 22" and 48" high. The device height should be adjusted to the elbow height of the worker (whether seated or standing), which is where the computer keyboard should be placed.

(see over)

Fact Sheet



For example:

- the elbow height of a seated female in the 5th percentile (shorter than the majority of the population) is about 22"
- the elbow height of a seated male in the 95th percentile (taller than the majority of the population) is about 29"
- the elbow height of a male in the 95th percentile, seated in a wheelchair, is about 34"
- the elbow height of a standing male in the 95th percentile is about 48".

For taller workers, the range needed is about 25" to 51" high (at elbow height).

Many employers will buy devices that accommodate the majority of their workers, and then make customized purchases for those who are taller or shorter. Generally, items are less expensive when purchased to fit "the 95 per cent" or the majority of the workers in the workplace.

b. Weight capacity

The sit-stand device, whether it is a table or another type of platform, needs to support office equipment and some of the worker's upper-body weight (due to leaning, etc.). A typical weight capacity should be between 91 to 113 kilograms (200-250 pounds).

What are some common sit-stand devices?

There are several equipment options you can buy to facilitate standing, sit-stand variability and movement in the office, including height-adjustable desks, desktop converters and clamp-on height-adjustable towers.

- **Height-adjustable desks**

A height-adjustable desk (*see page 1 for photos*) is a table-like work surface where the entire tabletop adjusts up and down. Height-adjustable desks can be tension-loaded, electric or adjusted with a manual crank. Some desks can be programmed to rise and lower at given increments of time. Ideally, the greater the range of height adjustability, the more workers will be accommodated.

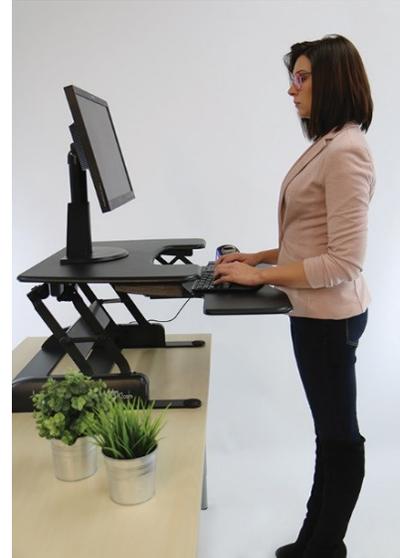
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Fact Sheet



- **Desktop converters**

A desktop converter (*see right*) is a less expensive way to convert a standard desk into a more height-adjustable option. Converters are placed on top of a regular desk surface and usually don't need to be fixed or secured in place, because they are very heavy. Height is usually adjusted manually with latch-releases on one or two sides of the section that elevates. Desktop converters have one platform for the monitor and a second for the keyboard. The height between these two platforms is typically fixed, so a height-adjustable monitor can be used to accommodate changes in distance between eye level and keyboard height when sitting and then standing.



- **Clamp-on height-adjustable towers**

Clamp-on towers have a sturdy clamp to secure the unit to the front or back edge of a desk. Arm attachments include support trays for a keyboard and a monitor. The attachments are designed to allow the support arm to swivel and adjust for height and angle. Raising and lowering the support arms along the tower unit allows users to move between sitting and standing positions.

- **Height-adjustable keyboard platforms**

Traditionally, height-adjustable keyboard platforms have not been able to meet the height requirements of most workers when in standing position, because they require a substantial desk depth for installation (up to 48" deep). In response, manufacturers have designed an alternate scissor-like arm (*see right*), which allows the platform to be adjusted to greater heights, and sometimes adjusted lower than desk height for a seated worker. The keyboard platform needs to be combined with a height-adjustable arm for the monitor.

