# Alternative Keyboards and Alternatives to Mice

**Purpose:**

- To use different muscles during keying or mouse.
- To reduce awkward postures of the arms or hands during keying or mouse. The main target postures are deviation (sideways bending at the wrist) or pronation (working with palms facing the floor).

**Possible Drawbacks or Misuse:**

- Some users find it difficult to adapt to new keyboard shapes or mouse alternatives. Error rates usually increase and speed slows. Most typists eventually return to their original accuracy and speed.
- Often, a wrist rest needs to be reshapes to fit an unusual horizontal or vertical angle of the keyboard. Inexpensive raw-foam wrist rests are a good solution because they can be cut.
- Some alternative devices use thumb motions frequently and can tire the thumb or cause tendinitis.
- Some alternative keyboards need additional arm support, because the keyboard requires higher hand positions than usual.
- There is no evidence (yet) that trackballs, etc. are healthier or unhealthier than mice. The main problem is overuse regardless of the kind of device. The best approach may be to switch back and forth frequently from one kind of pointing device to another. For Macs, this is easy because Macs support several devices without having to plug/unplug. Newer PCs with the Universal Serial Bus (USB) can do the same thing.

**General End-User Instructions:**

- Get used to alternative devices slowly. If discomfort develops, it may be due to the new design. Evaluate the situation carefully.
- For pointing devices (mice, trackballs, styluses, touch pads), consider switching back and forth between different kinds of devices, rather than completely replacing one device with another.

**Choices:**

- For keyboards, current choices are split and/or angled keyboards. Keyboards that adjust from a closed position allow users to use the board in the usual way, or to gradually adapt to new positions.
- For mice, choices include trackballs, mouse pens, mice that use one finger, and touch tablets, plus a wide variety of mouse shapes and sizes. When choosing alternatives, evaluate whether the alternatives truly use different muscles.
- Having a variety of keyboards and pointing devices available to users often produces the best results.