

ASSISTIVE/ AUGMENTATIVE TECHNOLOGY:

Assisting Students with Orthopedic Impairment

What is Assistive/ Augmentative Technology?

Assistive Technology is “any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability” (IDEA, 2017).

1. Pencil Grips

- **Low-Tech**

- Helps students with poor fine motor skills to properly grip pencils and pens, which aids them in handwriting.



Pencil grips are a great tool to use for students who have difficulty holding a pencil or pen correctly. Many students with orthopedic impairment, and other exceptionalities, struggle with fine motor skills, and they like the pencil grips for their efficacy, low-cost, and because they are a discreet assistive aid.

Image courtesy of Amazon.com

2. Wheelchair

- **Mid-Tech**

- Helps students with an orthopedic impairment stay mobile.



Wheelchairs are assistive technological devices that students can use if they are not able to walk or tire easily due to an orthopedic impairment. This device offers mobility to students and is a wonderful tool for ensuring that orthopedically disabled students have the freedom of movement to participate in activities.

Image courtesy of Spinlife.com

3. Keyless Keyboard and Mouse

- **High-Tech**

- Helps students with Orthopedic Impairment work on a computer.



A keyless keyboard and mouse allows students with orthopedic impairments that effect the muscles of their arms and hands to navigate a computer screen. These devices are ergonomically tailored to people with poor fine and gross motor skills. A keyless keyboard and mouse is easy to use after acquiring training on the devices.

Image courtesy of Rehab Mart.com

References

- Gargiulo, R. M., & Bouck, E. C. (2018). Chapter 5: Assistive Technology. In *Special education in contemporary society: an introduction to exceptionality* (pp. 135–158). SAGE Publications, Inc.
- IDEA. (2017, May 2). *Sec. 300.5 Assistive technology device*. Individuals with Disabilities Education Act. <https://sites.ed.gov/idea/regs/b/a/300.5>.
- Logsdon, A. (2020, April 14). *How Orthopedic Impairments Affect Special Needs Students' Education*. Verywell Family. <https://www.verywellfamily.com/what-is-orthopedic-impairment-2162506>.