

# Rochester Parapodium

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The Biomechanics Team at the University of Rochester Medical Center has been developing and testing design modifications to the Toronto parapodium since 1975. Early in 1983, these design modifications had stabilized, and prototypes of the new design were offered to medical centers and orthopedic laboratories in the United States and Canada. The Rochester parapodium has now been fitted to over 80 young children of ages 17 months to 14 years. Most of these children have flaccid paralysis due to spina bifida or spinal injury from L5 to T12.

The Rochester parapodium differs from the Toronto design in the hip and knee hinge and locking mechanisms. The hip joints unlock together with a single lever release and lock automatically on extension. The hip joints unlock with a forward motion and have no lateral projections, which allows ease in releasing hip lock in a confined space such as a wheelchair. The knee joints also unlock independent of the hip joints with a second single lever release and lock automatically on extension with the aid of an extension assist bar.

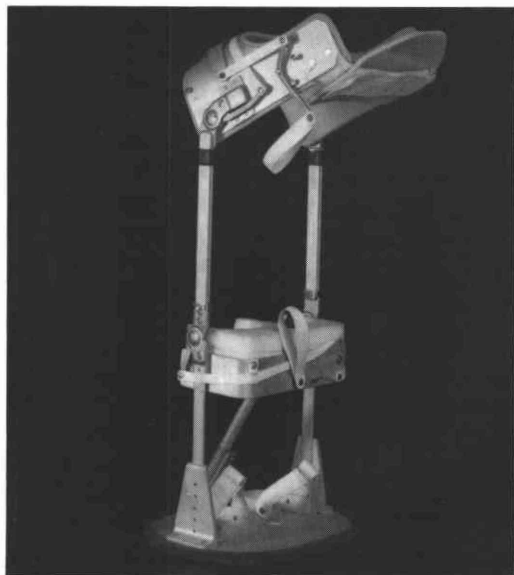


Figure 1. The hip joints unlock independent of the knee joints.

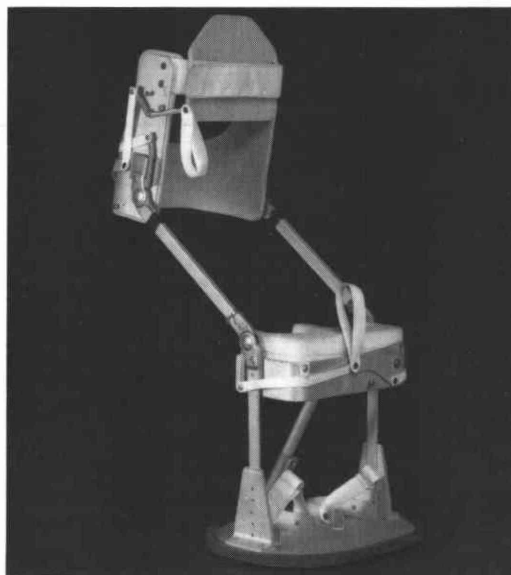


Figure 2. Both joints unlock with a pull of a lanyard.

