

Elbows



Description

Prosthetic elbows provide for flexion (bending) at the elbow joint and also allow the forearm to be rotated independently of the upper arm section.

Elbow will offer either a friction based tensioner to control forearm flexion position, or multiple locking positions. The rotation component in prosthetic elbows is usually friction based where the user must overcome preset friction in order to reposition the forearm.

Elbows are most commonly manufactured from plastic or aluminium alloys. The choice of materials depends on the strength and weight requirements of the user. Aluminium units are heavier and stronger than plastic.

Where an elbow has multiple locking positions, the unlocking mechanism will usually be a cable pull system (Bowden cable) or a manual release.

Advantages

- Simple.
- Robust.

- Durable.
- Increase range of motion of forearm.

Disadvantages

- Adds appreciable weight (especially Myoelectric elbows).
- Adds complexity.