Prosthetic Devices
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Prosthetics History

- 1862: First law guaranteeing prosthetic replacements for limbs lost in warfare.
- 1870: Law provides replacement prostheses every 5 years for limbs lost while in military service.
- 1958: Power upper limb prosthesis (Russia).
- Weight and Bulk: In 1918, a wooden below knee (BK) prosthetic leg: 9 pounds, vs. 1990s plastic BK prosthesis: less than 3 pounds.

Prosthesis
Upper Extremity

Body Powered
- Uses person’s power
- Is more useful for work
- Can have several “terminal devices”
- Generally more durable
Example Body Powered “terminal device”

Source: http://www.ottobockus.com

Prosthesis
Upper Extremity Powered

External Powered
• Uses battery
• Is more cosmetic
• Can have several “terminal devices”
• Generally avoid wet, dusty, dirty areas

Lower Extremity

• Mechanical rather than powered.
• Except “C” leg, (computer enhanced)
• SACH foot vs. energy storing foot
Otto Bock C-leg
(computer operated hydraulic knee-foot)

Keys for Successful Tx

- Early therapist involvement
- Good pre-operative assessment
- Pre- and post-operative therapy
- Early mobilization
- Good integration of prosthetic service with rehabilitation
- Team approach
  - good communication b/w team and family/community resources
- Regular follow-up appointments