

Amputation

January 31, 2008

Amputation is the removal of a body extremity by **trauma** or **surgery**. As a surgical measure, it is used to control pain or a disease process in the affected limb, such as malignancy or gangrene. In some cases, it is carried out on individuals as a preventative surgery for such problems. A special case is the congenital amputation, a congenital disorder, where fetal limbs have been cut off by constrictive bands. In some countries, amputation of the hands or feet was or is used as a form of punishment for criminals. Amputation has also been used as a tactic in war and acts of terrorism. In some cultures and religions, minor amputations or mutilations are considered a ritual accomplishment.

Reasons for amputation

- Bone **cancer** or soft tissue tumors
- **Severe limb injuries** in which the limb cannot be spared or attempts to spare the limb have failed
- **Circulation** problems
- **Deformities** of digits and/or limbs
- **Gangrene**
- Bone **infection** (osteomyelitis)
- **Traumatic amputation** (Amputation occurs actually at scene of accident, the limb can be partially or wholly severed)
- Amputation **in utero** (Amniotic band)
- Punishment/**Torture**



After-effects

A large proportion of amputees (50-80%) experience the phenomenon of **phantom limbs**; they feel body parts that are no longer there. These limbs can **itch, ache, and feel as if they are moving**. Some scientists believe it has to do with a kind of neural map that the brain has of the body, which sends information to the rest of the brain about limbs regardless of their existence. In many cases, the phantom limb aids in adaptation to a prosthesis, as it permits the person to experience proprioception of the prosthetic limb. Another side-effect can be **heterotopic ossification**, especially when a bone injury is combined with a head injury. The brain signals the bone to grow instead of scar tissue to form, and nodules and other growth can interfere with prosthetics and sometimes require further operations.

Expert in Amputation? DSES is always looking for volunteers to help teach or give presentations!!

Resources and Additional Information

National Amputation Foundation; www.nationalamputation.org

National Library of Medicine/National Institute of Health; www.ncbi.nlm.nih.gov