

## **For Your Information**

Tel.: 1 877 622-2472 Fax: 1 855 860-5595 info@waramps.ca

# **Feet for Adults**

A wide variety of artificial feet are available to suit the varying needs of amputees. The type of foot an amputee requires will depend on his or her size, weight and activity level. Discuss with your prosthetist what activities you plan to take part in so the appropriate foot can be chosen.

## Low to Medium Activity Levels

#### SACH (Solid Ankle Cushion Heel) Foot

This foot is a non-articulated rubber foot that is inexpensive and durable. Because of the increased energy use when wearing this foot, it may be best suited for short-term wear, such as with a preparatory or temporary fitting. It is also suitable for older amputees who do not put a great deal of weight on the forefoot.



#### **Single-Axis Foot**

This foot is articulated (with jointed parts) and is best suited when more knee stability is required on the amputated side. The full sole of the foot comes into contact with the ground more quickly, making it more stable. Because of this, it may be recommended for amputees with a higher level of amputation to provide more stability.

## **Intermediate Activity Levels**

#### **Multi-Axis Foot**

Similar in weight, cost and reliability to the single-axis foot, the multi-axis foot conforms better to uneven surfaces. The added ankle motion helps absorb some of the stresses of walking and better protects the skin and artificial limb from wear and tear. Amputees requiring a sideways leg motion (activities such as dancing and golfing) will like this foot.





#### **Elastic Keel Feet**

Because of their light weight, these feet are particularly well-suited for general walking. The elastic keel mimics the action of the human foot during push-off (the way you hoist yourself up and forward when you push off with your forefoot). This foot may also be useful during gait training because of the smooth rollover given by the elastic keel. A slight delay in push-off makes them less suitable for high-energy activities.

### Advanced/High-Energy Activity Levels

#### **Dynamic Response Feet**

This group of feet, often referred to as "energy storing," have a spring mechanism in the keel that bends during "heel-off" and returns to its resting position during "toe-off." These feet help an amputee achieve a more even gait and normal range of motion and give the feeling the foot is helping them push forward.

#### **Hybrid Designs**

Another approach to foot design is to incorporate separate components, such as an ankle unit, into the overall design of the foot – known as a hybrid design. The idea is to somewhat "customize" the foot with already available components to best suit the needs of the individual amputee.

#### Microprocessor Controlled Foot/Ankle Systems

This group of feet have sensors that determine the speed and direction of the foot's movement. A microprocessor allows the foot to adjust to changes in force, speed and the ground. This type of technology is intended to make walking more efficient and prevent falls.







