Prosthetist and Orthotist

A prosthetist is a person who makes artificial limbs called *prostheses* for people who have lost a body part such as a leg or an arm. A child who has lost a limb in an accident or has had a disease such as bone cancer may need a prosthesis. An orthotist designs and makes braces (orthoses) to support someone who needs extra help to sit, stand or walk. Children with cerebral palsy, muscular dystrophy or scoliosis often use braces for support. Prosthetists and orthotists work together with the child's doctor to design the best kind of support for that child.

Career Path

To become a prosthetist or orthotist, you need a Bachelors of Science degree from a four year college and a passing grade on the certification exam. Many people choose to become certified as a prosthetist and an orthotist. Prosthetists and orthotists work in large shops with special tools, machines and materials. They must have good technical skills and lots of patience. They also must have a good understanding of the human body and how it works. If you like building and making things and also enjoy helping people, this could be the career for you.

To make a custom-fitted orthosis or prosthesis, a plaster mold is made of the patient's body. Then the mold is used to shape the orthosis or prosthesis so that it fits the patient exactly. The prosthetist/orthotist works with the patient and the doctor making adjustments to the device until it fits and works just right. It takes a lot of time to get a perfect fit!

Technology Spotlight

Doctors at the Cleveland Clinic are helping people in Tanzania set up workshops where prostheses and orthoses can be made and tested. In many parts of the world it can be difficult to get an artificial limb or brace that has been made by a trained professional. The picture on the left below shows an instructor teaching students how to make a plaster mold for a prosthesis. The center and right-hand pictures below show a homemade artificial leg next to a professionally made leg. If you needed a prosthesis, which one would you choose?