

Department of
PROSTHETICS & ORTHOTICS

Prosthetics and Orthotics





What is Prosthetics and Orthotics?

Prosthetics and Orthotics is the clinical discipline related to the provision of:

- **Prostheses** (artificial limbs) to individuals with amputation, and
- **Orthoses** (supportive devices/braces) to individuals with musculoskeletal weaknesses, neurological disorders and fractures.

What Do Prosthetists and Orthotists do?

The clinical role of the Prosthetist and Orthotist includes assessment of patients, prescription, measurement, fabricating and fitting of prostheses and orthoses.

They are an integral member of the multidisciplinary health-care team and work closely with other allied health professionals to deliver the best outcome for our patients.

Prosthetists & Orthotists combine knowledge of anatomy, physiology, biomechanics, pathology and materials science together with specialised skills to provide prosthetic and orthotic treatment specific to each individual patient's needs.



Established in 1981, the Prosthetics and Orthotics Department at Tan Tock Seng Hospital (TTSH) provides expert prosthetic and orthotic services to Singapore and South East Asia.

About Us

Located within the Foot Care and Limb Design Centre, the Prosthetic and Orthotic Department comprises of clinical and gait rooms for amputee rehabilitation. Along with four specialised workshops to enable efficient on-site fabrication and fitting of customised prostheses and orthoses.

The Department has a dedicated team of certified Prosthetists/Orthotists with extensive international experience. We strive to uphold the highest standards in patient care through the use of evidence-based practices along with the latest in design and manufacturing technology.



PROSTHETICS & ORTHOTICS

Orthotic Services

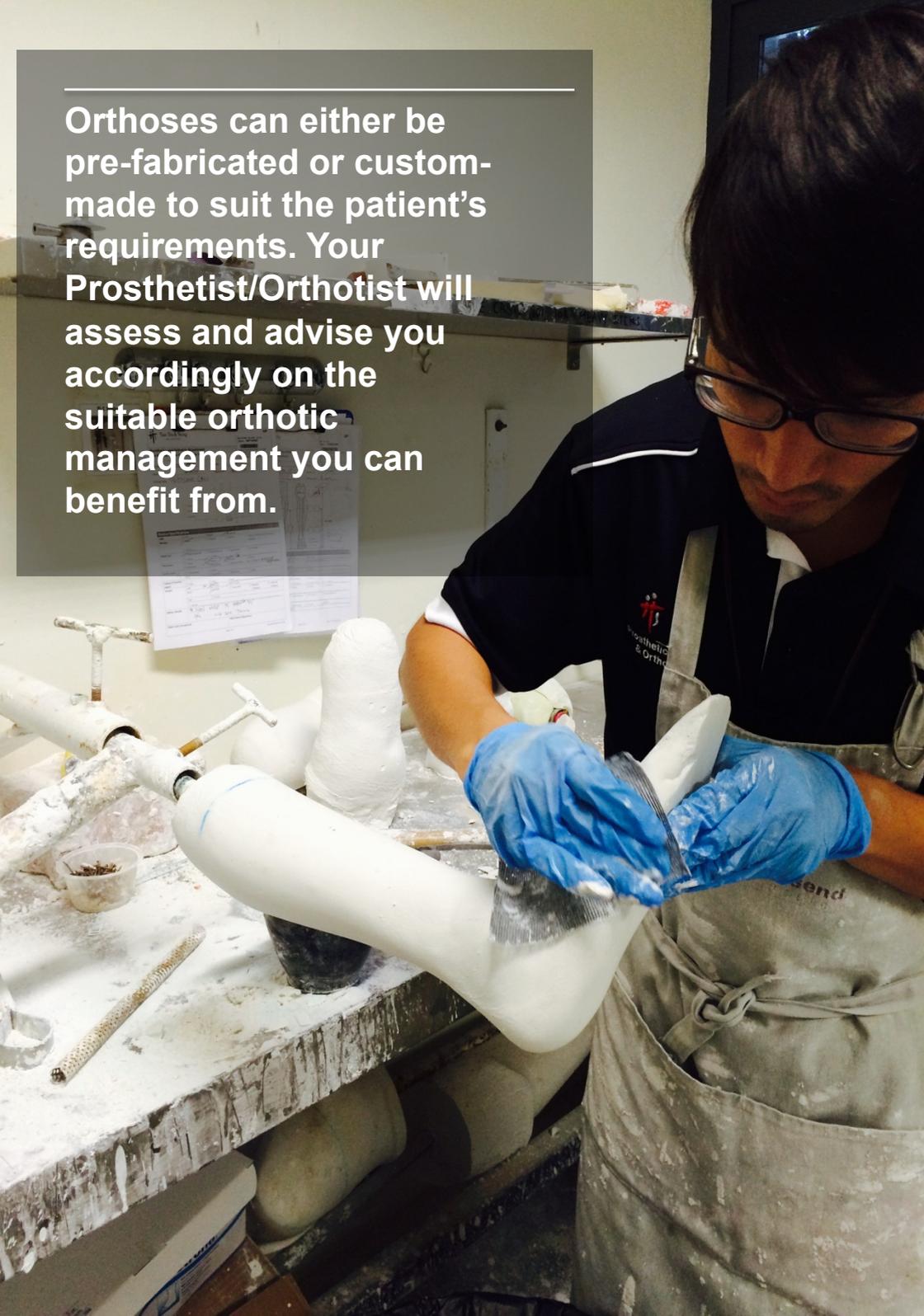
An orthosis (brace) is a supportive device that helps to:

- Control biomechanical alignment
- Prevent injury
- Provide support after an injury
- Assist in rehabilitation
- Reduce pain
- Increase mobility and independence

At the Prosthetics and Orthotics Department, we specialise in the custom measuring and fitting of:

- Foot orthoses
- Ankle and knee orthoses
- Fracture orthoses
- Spinal orthoses
- Cranial helmets

Orthoses can either be pre-fabricated or custom-made to suit the patient's requirements. Your Prosthetist/Orthotist will assess and advise you accordingly on the suitable orthotic management you can benefit from.



What are Prosthetic Services?

Prosthetics is the design, fabrication and fitting of custom-made artificial limbs for amputees.

The need for amputation could be due to:

- Disease
- Traumatic injury
- Congenital deformity

Prosthetic limbs restore, as completely as possible, the function and appearance of a full or partial missing limb. Fabricating prostheses is an intricate procedure requiring a high degree of skill and technology.

The design is determined by the prosthetist after considering the patient's physical condition, activity level and functional needs.





Amputees generally require a new prosthesis every few years. As children grow faster, they will need to replace their prosthesis more regularly.

Prosthetic adjustments, repairs, re-alignment, and component upgrading are also aspects of ongoing care that are carried out at our department.

We specialise in fabricating prostheses for:

- Below Knee Amputations
- Above Knee Amputations
- Hip Disarticulations
- Upper Limb Amputations & Myo-electrics

Our centre recently introduced the latest in CAD/CAM technology (Computer Aided Design and Computer Aided Manufacture), the first in Asia.

Using a scanned computer image of the leg, we are able to manufacture the prosthetic socket with a high level of accuracy, leading to an intimate fit and improved comfort levels.

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