

## The British Association of Prosthetists and Orthotists

# A CAREER GUIDE TO: PROSTHETICS & ORTHOTICS





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## What is prosthetics and orthotics?

Prosthetics and Orthotics is a medical and engineering based healthcare proffession. Prosthetists and Orthotists are Allied Health Professionals and are registered as autonomous clinicians under their membership of the Health and Social Care Professionals Council. (hcpc-uk.org)

#### What do Prosthetists/Orthotists do?

Prosthetists and Orthotists assess, diagnose and treat people who require external medical devices. People seen include those with lifelong conditions such as diabetes, cerebral palsy and arthritis; and those whom may be recovering from a health event such as a stroke or after a knee operation or injury. The work is often varied and no two people are ever the same. They work as autonomous practitioners as well as part of a wider healthcare team to help manage the rehabilitation of anyone requiring treatment for a variety of conditions.

## Do Prosthetists/Orthotists do the same thing?

Fundamental theories underpinning prosthetics and orthotics are similar which is why they are taught as one degree, and clinicians have a dual title, however the jobs can be very different. In general Prosthetists deal with patients who have a limb absence, whereas Orthotists deal with patients who may have limbs that do not work correctly, need extra support or require pain relief.

Most people after their degree choose to specialise in either prosthetics or orthotics; however there are a few centres in the UK where you can work as a dual practitioner.

## HOW DO I KNOW IT WILL SUIT ME?

Prosthetics and orthotics is a practical health and engineering based subject, so it is beneficial if applicants:

- Enjoy helping others
- Enjoy problem solving
- Enjoy being practical and using your hands

However the best way to get an idea of what a Prosthetist/Orthotist does is to get some work experience at one of the centres who do this work or to speak to a clinician.

#### What is a Prosthetist?

Prosthetists are autonomous registered practitioners who provide gait analysis and engineering solutions to patients with limb absence They are extensively trained at undergraduate level in mechanics, bio-mechanics, and material science along with anatomy, physiology and pathophysiology. Their qualifications make them competent to design and provide prostheses that replicate the structural or functional characteristics of the patient's absent limb. They are also qualified to modify prostheses or componentry taking responsibility for the impact of any changes. They treat patients with congenital absence as well as loss due to diabetes, reduced vascularity, infection and trauma. Military personnel are forming an increasing part of their case load. Whilst they are autonomous practitioners they usually work closely with Consultants, Technicians, Physiotherapists and Occupational Therapists as part of multidisciplinary amputee rehabilitation teams.



## What is a prosthesis?

A prosthesis is an externally applied device that is used to replace wholly, or in part, an absent or deficient limb.

### Where does a Prosthetist work?

Prosthetists generally work in specialist rehabilitation or disability centres alongside a team dedicated to treating those with limb absence or deficiency. These can be based on a hospital site or in a different location at a specialist rehabilitation centre. They often have patients from a large geographical area as there is usually only one specialist centre per region. These specialist centres tend to be situated in bigger cities and so prosthetists may have to relocate in order to get work.

#### What is an Orthotist?

Orthotists are autonomous registered practitioners who provide gait analysis and engineering solutions to patients with problems of the neuro, muscular and skeletal systems. They are extensively trained at undergraduate level in mechanics, bio-mechanics, and material science along with anatomy, physiology and pathophysiology. Their qualifications make them competent to design and provide orthoses that modify the structural or functional characteristics of the patients' neuro-muscular and skeletal systems enabling patients to mobilise, eliminate gait deviations, reduce falls, reduce pain, prevent and facilitate healing of ulcers. They are also qualified to modify orthoses or componentry taking



responsibility for the impact of any changes. They treat patients with a wide range of conditions including diabetes, arthritis, cerebral palsy, stroke, spina bifida, scoliosis, MSK, sports injuries and trauma. Whilst they often work as autonomous practitioners they increasingly often form part of various multidisciplinary teams such as within the diabetic foot team or neuro-rehabilitation team.







#### What is an orthosis?

An orthosis is an externally applied device used to modify the structural and/or functional characteristics of the neuro-muscular and skeletal systems. Examples of orthosis include insoles; footwear and adaptions; spinal braces, callipers; knee, elbow, shoulder, wrist and hand braces

### Where does an Orthotist work?

Orthotists work in a variety of setting including in hospital outpatients department, with inpatients on wards, and in satellite clinics at health centres and at in special schools. They are often required to move between clinics and may be part of a wider team in specialist clinics.

In general, there tends to be more job availability for Orthotists than Prosthetists and you will find many more orthotics centres throughout the UK in cities both small and large.

## So how do I become a Prosthetist/Orthotist?

To become a registered Prosthetist/Orthotist you must first complete a Batchelor of Science degree in Prosthetics and Orthotics.

Two universities in the UK currently run the course: The University of Strathclyde and The University of Salford. Both degree courses will enable you to register with the Health and Care Professions Council, HCPC and become a practicing clinician in the UK.



It is worth bearing in mind the commitment you will have to make to successfully complete the programme. Many of the placement centres are based throughout the UK and require a period of relocation and the course itself requires a large commitment in regards to study time.

## Are there any requirements?

Minimum entry requirements are set by the universities and do vary. Both universities accept a variety of qualifications including A-levels, Highers and Irish leaving certificates and both consider prior learning and access courses. Exact grades can be found on their websites.

On top of this you will normally be asked to attend an interview before an offer is made, at the interview you will be expected to have researched the course, the role of a Prosthetist/Orthotist and be able to demonstrate essential skills.

As Prosthetists/Orthotists work in a health care environment with vulnerable patients, an enhanced criminal record check will be required and your offer will most likely be dependent on this. You may also be required to pass a health assessment and further vaccinations may be required before being allowed to commence placement.

#### What skills will I need to show?

- Communication skills
- Sensitivity and tolerance
- Ability to use initiative

- Reliability, honest and trustworthiness
- Enthusiasm, dedication and determination
- Evidence of hand and people skills

#### What would I learn?

The BSc covers many different topics and involves a combination of styles of learning; at a minimum you can expect to learn about:

- Anatomy, Physiology and Pathology
- Biomechanics
- Material Science and the Design Process
- Research skills
- Prosthetic and Orthotics Theory

You will also have practical sessions on hand skills and casting, communication and problem solving.

On top of the university learning you will be also be required to undertake work placements. Work placements are usually based in prosthetic and/or orthotic centres and can be anywhere in the UK meaning you may be required to relocate. During these placements you will be expected to observe experienced clinicians and participate in supervised practice.

## So how do I find out more and apply?

You can find our more details about the courses by contacting the universities. You must apply to these courses through UCAS, the university and college admissions service. More information about this can be found on their website: www.ucas.com



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www.strath.ac.uk/courses/undergraduate/ prostheticsorthotics/

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University of Salford Brian Blatchford Building

www.salford.ac.uk/ug-courses/prostheticsand-orthotics

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T: 0161 295 5000

## What are my career prospects?

Currently there is a national and international shortage of Prosthetist and Orthotist and career prospects both throughout the UK and abroad are good, especially for Orthotistsand those willing to relocate.

It is worth remembering that due to the small size of the profession most clinicians relocate, and it can be difficult to get a job in Manchester or Glasgow where the training centres are.

#### Who can I work for?

Most Prosthetists/Orthotists either work directly for the NHS or are employed by a company contracted to the NHS. There are also opportunities to undertake private practice in both disciplines.

## What can I expect to get paid?

NHS Prosthetists/Orthotists are paid under the Agenda for Change and begin at Band 5. Senior and specialist Prosthetists/Orthotists can be paid at Band 6 and 7 and those who have management responsibilities can reach a Band 7 and 8. Contracted Prosthetists/Orthotists pay varies but at graduate level is often similar to in the NHS. Contracted Orthotists may also be eligible for a company car depending on the type and location of clinics they are expected torun.

If you are working in London or the surrounding boroughs you should be eligible for an extra allowance.

## How can I get work experience?

Gaining work experience can be difficult, but we recommend contacting the universities or BAPO who may be able to give you details of your local centre.

Work experience in other Health and Care disciplines is also considered as favourable.

Produced by the British Association of Prosthetists and Orthotists (BAPO)

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