

Occupational profile: A Prosthetist/Orthotist is a registered clinician. This unique occupation provides the opportunity to practice in two areas of healthcare. Most will specialise in Prosthetics or Orthotics; a small number continue in both. **Prosthetists** Provide gait (walking) analysis & engineering solutions to patients with limb(s) loss. They are trained in mechanics, bio-mechanics, & material science along with anatomy, physiology & pathophysiology. They are able to design, provide & modify prostheses that replicate the structural or functional characteristics of a patient's absent limb(s). They provide care to patients with congenital (from birth) loss as well as loss due to conditions including diabetes, reduced vascularity, infection & trauma. **Orthotists** Provide gait (walking) analysis & engineering solutions to patients with problems of the neuro, muscular & skeletal systems. They apply mechanics, bio-mechanics, & material science along with anatomy, physiology & pathophysiology when assessing patients. They design & provide orthoses that modify the structural or functional characteristics of a patient's neuro, muscular & skeletal systems enabling them to mobilise, eliminate gait deviations (improve walking), reduce falls, reduce pain, prevent & facilitate healing of ulcers & prevent physical deformities from progressing. They fit & modify Orthoses, an accountable and responsible for the impact of any changes. They provide care to patients with a wide range of conditions. Prosthetists / Orthotists manage their own patient caseloads, work across all age ranges & with a wide variety of conditions, often providing lifetime care. Whilst autonomous practitioner with leadership & management responsibilities they work as key part of a Multi-Disciplinary Team (MDT) to provide holistic care to patients & work collaboratively with members of the MDT through the provision of rehabilitation & long-term care. Prosthetists & Orthotists work for both the NHS & independent companies. Prosthetists/Orthotists demonstrate confidence, compassion, competency & effective judgement about risk & be responsible & accountable for their decisions. Prosthetist & Orthotists instruct and guide their technicians in the specification and manufacture of prostheses and orthoses. They also advise them in matters of patient interaction and care when the technicians are dealing directly with patients for example for repairs. They use current evidence to evaluate the effectiveness of their practice with the aim of continually improving outcomes for patients. They are responsible for ensuring their own knowledge & skills are current & support the development of others.

Day to Day Activities include:

- Provide **prosthetic/ Orthotic** care to patients, most commonly within a hospital environment, working closely with medical staff, physio and occupational therapists
- Assess & prescribe tailored orthoses &/or prostheses treatment; working in partnership with patients to tailor treatments to their needs & develop a treatment plan (which may be part of a wider MDT package of care)
- Analyse patient's needs & involve them in the design & choice of their device, take measurements (including moulds) &/or use computer modelling to produce a design of the prostheses or orthoses suited to the patient
- Provide and fit the orthoses & prostheses; educate the patient on how to manage and adjust their device to improve function further
- Support patients to maximise their potential over the time of treatment – which could be life long
- Carry out clinical follow-up checks with a patient to see how they are managing with their device & being able to spot ill-fitting/sub-optimal functioning & take appropriate action
- Use research, evidence & clinical experience to develop professionally & improve outcomes for patients & the profession (Including participation in clinical audit)

Entry: Employers will set selection criteria. This might include GCSEs, A levels, other relevant qualifications, relevant experience &/or an aptitude test.

Qualification requirements: Apprentices will be required to complete a Health & Care Professions Council (HCPC) approved BSc (Hons) programme in Prosthetics & Orthotics. Apprentices without level 2 English & maths will need to achieve this level prior to completing the end-point assessment. For those with an education, health & care plan or a legacy statement the apprenticeships English & maths minimum requirement is Entry Level 3 & British Sign Language qualification are an alternative to English qualifications for whom this is their primary language.

Professional registration: On successful completion, apprentices are eligible to apply to the HCPC for registration as Prosthetist/Orthotist, which is a requirement to practice under the protected title. (See HCPC Standards of Proficiency http://www.hpc-uk.org/assets/documents/10000522Standards_of_Proficiency_Prosthetists_&_Orthotists.pdf).

Level: 6	Duration: Typically 4 years	Review Date: After 3 years
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Values	Behaviours
Professionalism, skilled, caring, compassionate, conscientious, honest & trustworthy.	You will treat people with dignity, respecting patient's diversity, beliefs, culture, needs, values, privacy & preferences. You will show respect & empathy for those with whom you work with, have the courage to challenge areas of concern & work to evidence based best practice/consensus. You will also be adaptable, reflective, reliable & consistent, show discretion, resilience, self-awareness & demonstrate leadership. You will be focussed on problem solving & demonstrate tenacity.

	You will be able to:	You will know & understand:
Prosthetic/ Orthotic Care	<ul style="list-style-type: none"> • Work with patients to analyse their needs & involve them in the design & choice of their device as appropriate • Analyse & critically evaluate the information collected • Analyse & compare normal & abnormal gait, locomotor function & movement using both qualitative & quantitative means • Select & use appropriate investigation & assessment techniques, completing an accurate clinical assessment • Develop & implement a treatment plan, adjusting & changing as required to meet the patient's needs (including necessary practical skills) • Assess factors important to the relevant design, using appropriate techniques to capture body shape • Develop the model required to manufacture the device & modify/adjust the model where necessary • Prescribe orthotic or prosthetic intervention including, where necessary, the specification for manufacture • Undertake analyses where required for unapproved combinations or applications of components • Recognise when devices require rectification/repair & take appropriate action • Demonstrate a logical & systematic approach to problem solving using research reasoning to determine appropriate actions 	<ul style="list-style-type: none"> • The structure & function of the human body, together with knowledge of health, disease, disorder & dysfunction including: human structure & function of the musculoskeletal system; the aetiology & pathophysiology of human disease & general genetic principles; & a range of disorders that are amenable to prosthetic or orthotic treatment & their limitations • Gait, locomotor & movement functions & ways to check them • How to undertake & record a thorough, sensitive & detailed assessment • How to formulate & evaluate a treatment plan for a patient including setting appropriate review goals & timelines; the range of prosthetic & orthotic devices available; how to position or immobilise patients correctly for safe & effective interventions including fitting a prosthesis or orthotic device • The theoretical basis of prosthetic & orthotic science & design; a range of techniques for capturing body shape • The structure & properties of materials & their appropriate application to prosthetic or orthotic hardware & clinical practice; a range of modelling techniques; how to measure & adjust a model • Biomechanical principles & the appropriate application of forces to the human body following prescription & supply of a device in a manner which makes the application of such forces safe & effective in an episode of treatment • How to undertake analyses when required for unapproved combinations or applications of components • How equipment works & how to maintain it to a high standard at all times, when & where to report faults; quality control & how it applies in prosthetic/orthotic design & delivery • The range of orthotic & prosthetic products available allowing the most appropriate product to be provided/manufactured to meet the specific needs of the patient • How to identify changes in the fit of prostheses/orthoses over time (due to changes in the patient &/or materials) & how best to return the device to optimum effectiveness or where appropriate to renew & replace
Person Centred Care	<ul style="list-style-type: none"> • Work in partnership with patients to assess their needs & exercise professional judgement, utilising the best research evidence available, clinical experience & patient aspiration • Work in partnership with patients to identify goals & agree appropriate treatment plans & that work is based on mutual respect & trust-always maintaining high standards of care • Apply a range of communication interventions & interpersonal skills to support patients receiving prosthetic/orthotic care 	<ul style="list-style-type: none"> • Equality, diversity & inclusion legislation; how to treat people with dignity & respect; how to assess the nature & complexity of a patient's needs including how to empathise with patients; understanding how disability affects & influences prosthetic & orthotic management; the requirement to adapt practice to meet the needs of patients dealing with emotional needs due to a range of circumstances & experiences • Ways to use your judgement to develop treatment plans that reflect a patient's needs & preferences • How to recognise how communication affects assessment & engagement of a patient & to be able to apply a range of communication techniques; taking into account a patient's emotional state, age, capacity, understanding, learning & physical ability, culture, ethnicity & religious beliefs

	You will be able to:	You will know & understand:
	<ul style="list-style-type: none"> • Recognise & take account of the wide range of needs a patient has including physical, psychological, social & cultural needs (recognising when to refer to other professionals) • Demonstrate clinical reasoning & the processes that underpin decision-making & problem solving • Recognise the value of case conferences & other methods of review 	<ul style="list-style-type: none"> • Ways to assist the communication requirements of patients; including recognising the need to use interpersonal skills to encourage the active participation of patients; how to recognise the limits of prosthetic/orthotic practice in the context of patient care; including when not to proceed with a treatment intervention in the best interests of a patient • The stages and processes of clinical reasoning and understand how they underpin effective decision making
Governance & Safety	<ul style="list-style-type: none"> • Receive, act on & make referrals (to others) as appropriate • Practice safely, according to available evidence & within competency level, maintaining fitness to practice • Work collaboratively in partnership with other professionals, patients & carers focussed on achieving agreed goals • Obtain informed consent for prosthetic/orthotic care • Safeguard patients, including vulnerable adults & children • Conduct risk assessment of the environment, patient & the device prescribed & supplied • Safeguard confidential information relating to patients at all times • Maintain records that are fit for purpose & process them accordingly • Manage & lead colleagues & staff as appropriate • Comply with local & national standards regarding reporting of medical device failures & incidents • Practice within the scope of HCPC Standards of proficiency • Evaluate research & other evidence to inform practice • Work safely, including being able to select appropriate hazard control & risk management, reduction or elimination techniques in a safe manner in accordance with health & safety legislation • Select appropriate personal protective equipment & use it correctly • Establish safe environments for practice, which minimise risks to service users, those treating them & others, including the use of hazard control & particularly infection control 	<ul style="list-style-type: none"> • How to work collaboratively with those who provide services to patients; recognising the limits of prosthetic/orthotic practice & when to seek advice &/or refer to another professional • What is meant by fitness to practice; how to work within legislation, standards, protocols & codes of conduct (e.g. Medicines & Healthcare products Regulatory Agency HCPC); the limits of your own competence & role • How to be able to apply professional knowledge, skills & experience as part of a multi-professional team to ensure a patient's needs are met • What is meant by informed consent & how to secure it across the age range & in line with cognitive ability; the importance of providing patients with information that allows them to make informed decisions & safely manage their condition & supplied devices • What is meant by duty of care; medical ethics; safeguarding of adults & children & how it applies to your role • Health & safety legislation, policies & procedures; ways to assess risks that ensures safety & security of the prescribed device; how to balance the needs of the patient & personal risk taking; a range of evidence-based models of risk assessment related to prosthetics/orthotics & your own role • Concepts & theories of leadership & management and how they apply the clinical environment • How to maintain confidentiality & apply the principles of information & clinical governance • The importance of managing records & data in accordance with legislation, protocols & best practice • The need to participate in training, supervision & mentoring • Quality guidelines & device design principles that apply to patient devices; incident reporting & escalation • The national standards & legal framework within your scope of practice; including maintaining a high standard of personal professional conduct; the need to keep skills & knowledge up to date & the importance of career-long learning • Ways to reduce occupational stress & the importance of maintaining your own health & well-being • The value of critical reflection on practice & the need to record the outcome of such reflection • The structure & function of health & social care services in the UK • A range of research methodologies