GUIDE TO STUDYING
PHYSIOTHERAPY
INTRODUCTION

This guide to physiotherapy is going to incorporate the following: a definition of physiotherapy, an A-Z of conditions which physiotherapists might be expected to treat, typical career questions, a personal experience of being a physiotherapist, information about the Chartered Society of Physiotherapy (CSP) and a reference list of contacts and publications.

Definition

“Physiotherapy is a health care profession concerned with human function and movement and maximising potential:

• It uses physical approaches to promote, maintain and restore physical, psychological and social well-being, taking account of variations in health status
• It is science-based, committed to extending, applying, evaluating and viewing the evidence that underpins and informs its practice and delivery
• The exercise of clinical judgment and informed interpretation is at its core.”

The above definition is taken from the CPS Learning and Development Principles (2010). Physiotherapists work in a variety of health settings such as intensive care, mental illness, stroke recovery, occupational health, and care of the elderly. See below for more examples of area in which physiotherapists work.

To build a better picture of the range of conditions that physiotherapists can treat, see the A-Z of physiotherapy.

Careers Information

Find out about becoming a physiotherapist by reading the list of careers questions below:

What is Physiotherapy?

Physiotherapy is a healthcare profession with a science foundation. The range of work is very broad and varied and involves working with people to:

• Promote their own health and well-being
• Help restore their movement and functions to as near normal as possible when this has been affected by injury, illness or by developmental or other disability.

Physiotherapists’ work covers health promotion, preventative healthcare, treatment and rehabilitation, with people of all ages and with their families/carers whenever appropriate.

The core skills of chartered physiotherapists include manual therapy, therapeutic exercise and the application of electrophysical modalities and the physiotherapist’s approach is underpinned by an appreciation of the psychological, cultural and social factors that influence their patient or client’s active participation in helping themselves to maximise independence and function.
What do physiotherapists do?

Chartered Physiotherapists combine their specific knowledge, skills and approach to improve a broad range of physical problems associated with different ‘systems’ of the body, in particular the neuromuscular (brain and nervous system), musculoskeletal (soft tissues, joints and bones) cardiovascular and respiratory systems (heart and lungs and associated physiology). Increasingly, as a result of changes in health care, people are referring themselves directly to physiotherapists without previously seeing any other health care professional. Physiotherapists work autonomously, most often as a member of a team with other health or social care professionals. They may be employed or self-employed and can work alone. Physiotherapy practice is characterised by reflective behaviours and systematic clinical reasoning, both contributing to and underpinning a problem-solving approach to patient-centred care.

Both becoming and being a physiotherapist is hard work but there is a rich and rewarding variety of work available to qualified physiotherapists and the opportunities within the profession, both in the UK and internationally are considerable. The following are just some examples to show you the variety of physiotherapists’ work:

<table>
<thead>
<tr>
<th>AREA</th>
<th>WORK</th>
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<tbody>
<tr>
<td>Outpatient clinics</td>
<td>Advising and treating people with spinal and joint problems, or recovering from accidents and sports injuries.</td>
</tr>
<tr>
<td>Patients in hospital</td>
<td>Treating in-patients, including people in intensive care units – helping very ill people to keep their chests clear of secretions while they are too poorly to cough effectively and to keep their limbs mobile whilst confined to bed.</td>
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<tr>
<td>Schools</td>
<td>Working with teachers in the support of children with developmental movement problems.</td>
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<tr>
<td>Workplaces and Industry</td>
<td>Advising managers and staff on injury prevention as well as treating specific problems.</td>
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<tr>
<td>Sports and Community centres</td>
<td>Promoting health and preventative health education of people through progressive exercise programmes and back care classes.</td>
</tr>
<tr>
<td>Women’s Health</td>
<td>Advising women on ante-and post-natal exercise and posture, managing continence and post-gynaecological operation (specialist physiotherapy can also help men with continence problems).</td>
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<tr>
<td>Elderly Care</td>
<td>Maintain mobility and independence, rehabilitation after falls, or treating arthritis and Parkinson’s disease.</td>
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<tr>
<td>Stroke patients</td>
<td>Helping people with paralysed limbs to restore normal movement.</td>
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<tr>
<td>Orthopaedics</td>
<td>Regaining movement and strength after spinal operations and hip, knee and other joint replacements; treating patients who have accidents and fractures.</td>
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<tr>
<td>Mental illness</td>
<td>Holding relaxation and body awareness classes, and improving confidence and self-esteem through exercise.</td>
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<tr>
<td>People with learning difficulties</td>
<td>Developing people’s potential through sports and recreation; assessing and providing specialist footwear, seating and equipment.</td>
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<tr>
<td>Terminally ill</td>
<td>Supporting people with end of life conditions in the community or is hospices.</td>
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<tr>
<td>Private sector</td>
<td>Working independently in private practice, clinics, and GP surgeries, treating a wide range of conditions.</td>
</tr>
<tr>
<td>Voluntary organisations</td>
<td>Providing expertise and advice in organisations that support people with conditions such as multiple sclerosis and Parkinson’s disease.</td>
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Choosing a career is an important decision. It is advisable to find out as much as you can about the reality of physiotherapy before deciding whether it is the occupation you are looking for. The following sections cover some of the things you will need to consider.

It is important that you have a good understanding of what physiotherapy is before you apply to do physiotherapy. Some useful sources of information are:

- The Chartered Society of Physiotherapy website www.csp.org.uk
- NHS careers website www.nhscareers.nhs.uk
- The NHS has also produced a short video ‘Ten reasons to choose physiotherapy’. For more information visit www.tenreasons.net
- The new generations project has developed a website for school children as well as supporting work for teachers, ambassadors for health professionals and post 16 information about health careers other than the doctors and nurses. The website address is www.newgenerations.org.uk

There is much useful information contained in the book: Getting into Physiotherapy Courses, Fifth edition, written by James Barton. This paperback is published by Trotman (ISBN 978-1844552283) February 2010. The book covers all aspects of the application process which, given the level of oversubscribing, will afford the best possible chance of success. It begins by focussing on the A Levels required, gives tips and advice on writing the personal statement as well as explaining how to shine at interview.

The Spinal Injuries Association (SIA) in partnership with the Organisation of Chartered Physiotherapists in Private Practice (OCPPP) has produced a DVD called Gaining Ground- Physiotherapy following spinal cord injury. This DVD is a 60 minute presentation showing paraplegics and tetraplegics undergoing three months of physiotherapy at the National Spinal Cord injuries Centre, Stoke Mandeville. It is priced at £20.00 (plus £2.00 p&p UK) for further information visit the Spinal Injuries Association (SIA) website – www.spinal.co.uk

Gaining work experience is also helpful but can be difficult to organise specifically in physiotherapy because of all the training pressures there are on physiotherapy departments currently. You are also likely to find that you need to be aged 18 and over. Work experience in any aspect of healthcare will be useful to you. This is because admissions tutors are looking for evidence that you have the ability to communicate well with all ages and sections of the community, and can cope with bodily fluids, illnesses and disability. Examples of where you may find work experience are:

- Local hospital and their physiotherapy departments (private or public). A search for local NHS hospitals is available on the Department of Health Website – www.nhs.uk
- Private physiotherapy clinics.
- Sports clinics, football clubs, or special schools, units (for physically handicapped children and adults) and nursing homes for the elderly.
- Voluntary work for example with the Red Cross Association or St Johns Ambulance Society or the MS Society.

Many physiotherapy programmes or hospital departments near you will probably hold an open day at some stage in the year. Information on open days are usually posted on individual university or hospital websites. Alternatively, requests for information on open days should be made in writing, enclosing a large stamped address envelope.
**STUDYING AT UNIVERSITY**

**Full-time programmes**

The majority of physiotherapy programmes are three or four years of full-time study. This will include a large amount of study in your own time, and lengthy clinical placements, which may not necessarily be in your own town.

It is worth bearing in mind the extent of the time commitments involved in the study programme. You must be sure that your private commitments can be managed, given the large number of assignments that you will have to do. It really is a ‘full-time’ programme and you must be certain of your personal commitment to study.

**Part-time Programmes**

There are a number of part-time physiotherapy programmes in the UK. Part-time programmes have the same entry requirements and learning outcomes as the full-time courses. A few of these programmes have been set up primarily for physiotherapy assistants wishing to train as Chartered physiotherapists.

**Accelerated Programmes**

There are a number of accelerated programmes in the UK leading to eligibility to practise physiotherapy. Applicants who have already obtained a degree in a relevant discipline such as a biological science, psychology or sports science, (first class or upper second class honours graduates), may be eligible to study for an accelerated degree programme.

A guide to becoming a Physiotherapist is given at: http://www.baconscollege.co.uk/Assets/Uploaded/Careers %20info.pdf

A typical physiotherapy degree incorporates a good mix of theory covering physiology, neurology, respiratory, neuromusculo-skeletal and personal professional development, and practical courses of electrotherapy, massage, exercise therapy and anatomy. All this information is put into good practice on the clinical placements.

**What qualifications are needed in order to apply?**

The entry requirements below are given for guidance. Entry requirements will vary from university to university. It is therefore important that applicants check directly with individual universities before applying. The minimum entry requirements are the same as those of all degree programmes. However the competition for places means that conditional offers of a place are often set higher than the minimum.

**England, Wales and Northern Ireland**

School leavers are normally required to have three A2 Level subjects at Grades AAB with an A in Biology, Human Biology or PE. In addition to the above, students should hold a minimum of five GCSEs at grade C and above. The latter should be taken at one sitting and include Mathematics, English language and a spread of science subjects.

**How do I check entry requirements?**

Please note: each physiotherapy programme has its own individual entry requirements. Applicants are advised to visit the individual university website for specific entry requirements and a prospectus. Alternatively you can contact the universities admissions office. For contact details please refer to the list of UK qualifying programmes on this website www.csp.org.uk/director/careersandlearning/ukqualifyingprogrammes.cfm

**What are the non-academic requirements?**

As well as having the ability to cope with the academic demands of an honours degree course in science, admissions tutors will also be looking for evidence of the following qualities and skills in potential students:

- communication, helping and caring skills
- sensitivity and tolerance
- ability to use initiative
- potential to undertake an intensive course of study
- reliability, honesty and trustworthiness
- enthusiasm, dedication, and determination

**Will I be interviewed?**

Students who fulfil entrance criteria may be invited to attend a selection visit/interview, although some programmes offer places without an interview. When interviewing, admissions tutors expect applicants to have carefully researched the training programme, the scope of physiotherapy practice, career opportunities and the role of other medical healthcare professionals.

It is also useful to have considered why you want to be a physiotherapist, rather than any other type of healthcare professional such as a nurse of occupational therapist.
What are the typical salary and conditions for a newly qualified physiotherapist?

- The initial physiotherapy salary in The National Health Service (NHS) is £21,388 - £27,901 (Agenda for Change Band 5).
- Advanced clinicians and team leaders normally earn between £30,764 and £40,558 (Band 7).
- Senior managers can earn between £39,239 and £56,504 (band 8a-8b). This could rise to £77,850 - £98,453 (Band 9) for the consultant level roles, depending on the size and location of the department (all salary data collected from the NHS Careers 2013).
- Extra allowances are payable in the London area, where there may also be assistance towards the cost of accommodation.
- Progression within the NHS pay scales is dependent on achievement of ‘gateways’ within the NHS Knowledge and Skills Framework (KSF). Although generic guidelines are set, each trust operates independently within the NHS so there is some variation in bandings.
- Higher salaries may be achievable in the private sector.
- All full-time NHS allied healthcare professionals work 37.5 hours a week. The hours are usually during daytime between Monday and Friday. Some weekend and night duty on a rota basis is required and newly qualified staff are not exempt.
- The work may be physically demanding, with busy caseloads.
- Junior staff are given a large amount of responsibility.
- Self-employment, freelancing, bank and locum work are all possible and part-time contracts may be available.
- The Chartered Society of Physiotherapists (CSP) advises two years of experience and further training before moving in to the private sector (either self-employed or based in a clinic).
- Although this profession is predominantly female, males are entering in increasing numbers.
- It is essential to wear either a uniform or practical clothes.
- Recent changes in employment tend to mean that 60% of all physiotherapists are now employed in community setting and opportunities in acute hospitals are continuing to fall.
- Occasional travel within the working day to other sites, or absence from home at night may be required.
- Working abroad is a popular option, although most English-speaking countries now require candidates to sit a qualifying examination.
- Applications take many months to process and initial experience in the UK is often required.

What are the typical training opportunities and career development for a newly qualified physiotherapist?

Most newly qualified physiotherapists still work within the National Health Service (NHS). Traditionally, they have undertaken a rotational role of three to four months in each of the different specialties (e.g. outpatients, musculoskeletal, etc). In acute hospitals, but this pattern is being affected by the move of primary care settings where it is not always possible to offer the same variety. You can expect to receive clinical supervision on the job, and mentorship support for new entrants, as well as regular briefing sessions run by senior staff and short professional courses, some of which may be compulsory. In Scotland, allied health professionals can access the Flying Start NHS programme.

All physiotherapists must keep a record of continuing professional development (CPD) in order to maintain their registration with the Health Professional Council (HPC). Those in private practice must also produce business plans.

The Chartered Society of Physiotherapists (CSP) website and the magazine Frontline contain details of conferences, training programmes, workshops and short courses to promote new products and services used in the profession. The CSP website also holds details of more than 500 post-qualification programmes in 25 main subject areas, searchable by geographical locality. These cover, for example: disability studies; community care; management/quality issues; mental health; paediatrics; rehabilitation; neurology. Qualified members can apply for financial support through the CSP charitable trust to help them participate in CPD opportunities. The society also produces CD-ROMs and publications with information on training courses available. You can opt to study for further specialist postgraduate qualifications in physiotherapy, which may well enhance your career prospects.

In order to progress in this profession you will need to develop the relevant key skills to make good use of continuing professional development (CPD) opportunities. In the past, physiotherapists have gained initial experience in an acute hospital, acquiring a wide range of knowledge and skills. However new initial career pathways are likely to emerge as the pattern of health provision changes.

Within The National Health Service (NHS), it is possible to progress into promoted positions after about two years.

Opportunities exist to become a clinical specialist within a particular field. The Chartered Society of Physiotherapy (CSP) Employment Pack for student members list no fewer than 40 clinical interest and occupational groups. The potential for some degree of specialism is immense and covers very specific areas such as hand therapy or...
therapeutic riding. Some areas such as sports medicine and animal therapy, are generating new employment opportunities.

Other main areas for career development include:

- Management (including consultancy)
- Research
- In-service training and lecturing
- Private practice (usually after two of three years’ experience)

Some physiotherapists move into health service management and get involved with purchasing health services or managing rehabilitation services. Management may well involve supervising different denominations of NHS staff, not just physiotherapists. Others decide to train in additional therapies such as acupuncture or reflexology. There are also growing opportunities with employers outside the NHS and setting outside the health sector altogether.

OTHER INFORMATION

Equal Opportunities

The Chartered Society of Physiotherapy, and the physiotherapy programmes it approves, work towards equal opportunities of access. They welcome applicants regardless of their sex, age, race ethnic or national origins, sexual orientation, social class, family responsibilities, political and religious beliefs.

Health Screening

The demands of a physiotherapy programme are such that the student must be medically fit. Before you are accepted onto a physiotherapy programme you will be subject to a full occupational health assessment.

How do I fund my study?

In England and Wales, funding is via a NHS Means-Tested Bursary. An application for a bursary is normally made through the relevant university physiotherapy department on your behalf once you have been offered a place. Students who are awarded bursaries also get their course fees paid and are eligible to apply for a student loan.

A means-tested bursary means that your income or that of your spouse/parents will be taken into account, and the amount of the grant will be reduced in proportion of that income.

Further information is available from:

ENGLAND
NHS Student Grants Unit
Hesketh House
200-220 Broadway
Fleetwood
Lancashire FY7 8SS
Tel: 0845 3586655
Fax: 01253 774490
Email: enquiries@nhs.gov.uk
www.nhsstudent@nhspa.gov.uk

WALES
The NHS (Wales) Student Awards Unit
National Leadership & Innovation Agency for Healthcare (NLIAH)
2nd Floor, Golate House
101 St Marys Street
Cardiff
CF10 1DX
Tel: 02920 261 495
Fax: 02920 261499
Students who have received previous funding

If a student is accepted to fill one of the ‘bursary places’ on their programme, then the student will receive the NHS bursary regardless of any LEA mandatory awards previously made to them. Any queries about funding should be addressed to the admissions tutor of the university which has offered you a place.

What do I need to do next?

Contact the university that interests you to obtain a copy of their prospectus. These can be downloaded from the university websites. Alternatively, you can contact the university to obtain a copy. This will give you a good idea of the ethos of the university and the facilities it offers. It should also tell you the dates of its forthcoming open days. All applications for full-time undergraduate degree programmes are made through Universities and College Admissions Services (UCAS).

Personal experience of being a physiotherapist

Since the age of about 14 I was set on becoming a physiotherapist, and so was encouraged to gain as much experience as possible. This included experience with a complete variety of healthcare professionals ranging from occupational therapists, nurses, within a hospice, in sports injury clinics and sports teams. All this set me in good stead when it came to applying as it is very competitive. The degree itself is quite tough, incorporating a good mix of practical and theory and an increasing amount of time spent on clinical placements meaning short holidays. I was lucky enough to arrange my elective placement with the England hockey team, which sparked my interest in sports physiotherapy.

Once I had completed the degree, the need for junior physios was great, making it relatively easy to get my first job. I know the situation has changed and there is a huge shortage of junior physiotherapy jobs, with the introduction of Agenda for Change, and decreased finding for junior physios within the NHS.

I completed two years of junior rotations at a London teaching hospital, comprising of four monthly rotations in core areas of orthopaedics, respiratory, out-patients, and medical rehabilitation and then more specifically rotations of paediatrics and burns and plastics. This was a great grounding on which to specialise, or in my case use to work abroad, and since I have been able to work in New Zealand and Africa, being fairly flexible where different skills are required.

On returning to the UK I have found my niche in musculo-skeletal physiotherapy and have worked in several NHS hospitals gaining further experience. I now work for the Ministry of Defence (MOD) in a medical centre with eight other senior physios serving a military service population of about 10,000 soldiers where 80% of the injuries are musculo-skeletal. These injuries range from simple ankle sprains to shrapnel wounds from operations overseas, and complex rehabilitation following multiple fractures. It is incredibly rewarding as the patients are very compliant, the facilities are excellent and there is a great multidisciplinary system in which to give patients the best care. The MOD is also very pro-active in encouraging continual professional development and so I have been able to train in acupuncture, pilates, various sports and orthopaedic medicine courses.

In conclusion physiotherapy is a very rewarding career with many different facets and opportunities to find your niche.
About the CSP and information pertinent to a physiotherapist’s clinical practice

The Chartered Society of Physiotherapy is a professional, educational and trade union body for the country’s 47,000 chartered physiotherapists, physiotherapy students and assistants. It aims to support its members and help them to provide the highest standards of patient care. This section of the site gives more information about the Society itself including office location details, how to contact us and details of current vacancies. And if you are in need of some retail therapy, please visit our online shop.

The CSP

The Society is a member-led organisation, governed by the CSP Council. This is made up of elected CSP members and is supported by a system of boards, branches, committees and groups. The CSP provides an exceptionally wide range of member services and is also a campaigning organisation, speaking up for physiotherapists and promoting the physiotherapy profession. It has information on effective clinical practice, clinical guidelines, (you can also find out more about current guideline developments by the National Institute for Clinical Excellence (NICE) and the Scottish Intercollegiate Guidelines Network (SIGN), outcome measure, standards of practice, information on sharing, effective clinical practice.

The CSP website also has information on Clinical Interest and Occupational Groups (CIOGs) (there are now over 50 CIOGs affiliated the Society, egs of newer ones include areas of HIV, military medicine and hyperventilation). Member groups (dedicated pages exist for managers, assistants, students, educators, clinical educators, stewards, safety representatives and diversity network groups) and interactive CSP (iCSP) which is a free, easy to use website acting as a forum for members to share knowledge base.

Conditions that physiotherapists can treat A-Z

Below are listed a range of conditions – and one treatment modality – which pertain to physiotherapy. By no means a definitive list, it serves to show the wider range of health problems that physiotherapists often treat.

Asthma

Asthma causes recurrent breathlessness, wheezing and difficulty breathing. It affects one in five children at some point in time in their lives. In many cases it improves or clears up in early adulthood.

Occasionally adults can also develop asthma. During an attack, the lining of the airways in the lungs becomes swollen causing them to narrow and produce a sticky mucus. This makes it harder to breathe, resulting in coughing and wheezing. Attacks can be triggered by pollen, dust, fur from pets, exercise (especially in cold air), stress, cigarette smoke, or other air pollutants. The physiotherapist can teach you and your child how to use an inhaler in order to prevent attacks and give other advice to reduce the risk of attacks and to promote your child’s exercise tolerance. Physiotherapists also advise on techniques to clear secretions from the child’s lungs and on breathing control, relaxation, and the child’s positioning during an attack.

Back Pain

Sixty percent of adults suffer from back pain every year and half become chronic sufferers. Back pain is most often the result of poor posture, an injury or overuse, but there are other causes of back pain such as inflammation, and rarer, more serious problems such as progressive diseases affecting bones and joints.

Physiotherapists are trained to diagnose problems in the joints and soft tissues of the body, and will carry out a comprehensive assessment and treatment plan for your particular problem. Physiotherapists for back pain, provide a wide range of treatments to relieve pain, promote relaxation and restorative movement. They include manipulation, mobilisation and massage. Exercise may also be used to increase general fitness or to strengthen muscles, which support the spine. If you are prone to back pain, a physiotherapist can also offer preventative advice.
Cerebral Palsy

Cerebral Palsy is a general term used to describe disorders to movement and posture. Affecting about one in 400 children, it is usually caused by a part of the brain failing to develop either before birth or in early childhood.

The main effects of cerebral palsy are difficult in controlling movement and posture, and balance problems. Sometimes other parts of the brain are also impaired resulting in sight, hearing and learning difficulties.

Physiotherapy plays a central role in managing the condition, often from birth. If a problem is identified, the physiotherapist accesses the child and records their development. As a part of tailored treatment plan they will teach the child how to control their head movements and how to sit, roll over, crawl and walk, as well as trying to inhibit abnormal reflexes and patterns of movement. Physiotherapists also teach parents how to handle their child at home for feeding, bathing, dressing and other activities, and advise on equipment to help the child’s mobility.

Developmental Co-ordination Disorder

Development Co-ordination Disorder (DCD), sometimes called Dyspraxia or clumsy child syndrome, is when a person’s motor skills are impaired, resulting in movement and co-ordination difficulties. It is thought to be caused by insufficient neuromuscular (nerve cell) development in the brain, so that information from sensory perception such as vision, hearing speech and balance is not processed properly.

As a result, the person finds it hard to learn motor skills, and his or her movements are often slow and hesitant. They may also have problems with language, writing, and organising their thoughts. Attention span and memory is often poor. Although not curable, with appropriate treatment children often improve dramatically. The physiotherapists will assess their particular difficulties before planning a treatment programme. This may include exercises to strengthen and games to improve motor skills. For example, weight bearing exercises can help to increase muscle control in the shoulders so improving co-ordination, while tactile (touch) activities can help to increase sensory awareness of arms, hands and fingers.

Electrotherapy

Physiotherapists use electrotherapy to treat disorders relating to the muscles and/or bone.

Some of the main electrotherapy methods are listed below:

- **SHORTWAVE DIATHERMY** – produces an electromagnetic field which generates heat within tissues. This helps healing, reduces swelling and offers pain relief. It is useful for treating soft tissue injuries, slow healing wounds, sinusitis, and conditions affecting the pelvic area.
- **ULTRASOUND** – involves using high frequency sound waves to treat injuries to muscles, tendons, and other soft tissues. It is thought to stimulate blood circulation and cell activity, accelerating the healing process and providing pain relief.
- **LASER** – is used to produce a concentrated beam of light radiation. Treatment stimulates tissue healing and reduces pain, inflammation and swelling. It is often used for skin conditions and soft tissue injuries and to heal open wounds.
- **TENS (TRANSCUTANEOUS ELECTRICAL NERVE STIMULATION)** – produces pain relief by blocking pain messages to the brain.

Fractures

A fracture is a break in the bone, which is either complete or partial. Most fractures are caused by a sudden injury that puts more pressure on the bone than it can withstand.

Areas of the body where fractures most often occur include the hand, wrist, ankle, collarbone and the neck of the femur of the hip, which can be the result of a fall.

Physiotherapy is used once the bone has been realigned and splinted, usually by encasing it in plaster of Paris. The physiotherapist may offer advice about positioning of the limb as we as teaching exercises to avoid muscle wasting and to prevent stiff joints. They will also help the person to get used to crutches, and other appliances. After the plaster is removed, the physiotherapist plans a rehabilitation programme taking into account the person needs and lifestyle. Using techniques including specific exercises and general fitness programmes, the aim is to reduce swelling, regain full muscle power and join movement and bring to back full function.
Gait

Gait, or walking pattern, is a complex activity involving most parts of the body. Our gait varies according to our individual anatomy, our age and whether the walking is fast or slow. Physiotherapy is used to help a person learn how to walk again following disease or injury, or to keep them mobile if they have irreversible problems affecting their walking pattern. Pain, muscle weakness, joint stiffness and nervous system diseases can result in abnormal gait patterns.

The physiotherapist also works with children with walking difficulties, such as those with cerebral palsy. After assessing a person’s gait, the physiotherapist plans an individual tailored rehabilitation programme which may include activities to strengthen muscles, increase range of movement and relieve pain as well as providing walking re-education. They also show the person how to use appropriate walking aids such as crutches and walking frames.

Heart Disease

The most common form of heart disease is coronary artery disease, accounting for a third of all deaths between the age of 45 and 64. It occurs where the heart is damaged by the narrowing or blocking of coronary arteries which supply the blood to the heart muscle. Insufficient blood reaches the heart leading to chest pain (angina pectoris) and heart attacks. The narrowing of arteries is caused by patches of cholesterol rich fatty deposits and by blood clots forming on these patches. Smoking, unhealthy diet, high blood pressure and lack of exercise all contribute to heart disease. Physiotherapists, working as part of a team, develop a treatment programme, taking into account the persons age, lifestyle, and severity of the disease.

Rehabilitation after a heart attack may take several months or more. The physiotherapist will teach relaxation techniques, breathing exercises and exercises to gradually strengthen leg and trunk muscles. Gradually, gently activity such as walking is introduced. Outpatient rehabilitation may include a group activity with fellow patients in a gym. Throughout the programme the physiotherapist aims to rebuild the person’s confidence, to improve exercise tolerance and to teach them to recognise signs and symptoms of excess exercise.

Incontinence

Many people have incontinence at some time in their lives. The most common type is stress incontinence, where the bladder leaks if put under pressure, perhaps with a cough or a sneeze, or during strenuous activity.

Women are especially prone after childbirth, when their pelvic floor muscles have been weakened.

Urged incontinence sometimes occurs where there is a weakness in bowel function, for example in elderly people. Physiotherapists have a central role in treating incontinence. After detailed assessments, they may teach you exercises to strengthen pelvic floor muscles. Vaginal cones are also sometimes used.

Electrotherapy can help stimulate the muscles if you cannot contract them yourself. A technique called biofeedback may be used to give you a visual or auditory feedback on how the muscles are working. Physiotherapists can also offer preventative advice to those high risk groups such as pregnant women.

Juvenile Arthritis

Juvenile arthritis is a rheumatic condition causing inflammation, swelling, and stiffness in the joints. Affecting about one in 1,000 children in the UK it is thought that the condition results from an unusual reaction to infection, where the body’s natural defence system attacks the body itself, damaging one or more joints and the surrounding soft tissue.

Physiotherapy uses a range of techniques to reduce inflammation and to control pain and stiffness. The physiotherapists will develop a specific exercise programme for your child with may include stretching to loosen stiff joints and increase range of movement, and other exercises to build muscles.

They will also help your child with specific difficulties such as stairs or balance. Hydrotherapy is another useful way of helping movement and strengthening joints and muscles. The long term outlook is excellent with most juvenile arthritis going into remission after three or four years.
**Knee Replacement**

A knee replacement operation is carried out when the knee is badly damaged by arthritis causing severe pain and impaired motion. Most artificial knees are metal or plastic implants that cover the worn cartilage. After the operation physiotherapy is essential for getting the best result from the new joint.

Using a range of exercises, the physiotherapist will help you to regain muscles strength and movement, so that you can walk normally as soon as possible.

They will also teach you how to use crutches, and will ensure that you can carry out basic movements such as standing up, sitting down and going up and down stairs. After discharge from hospital, you will continue to see the physiotherapist until you have optimum function from the new joint.

**Lymphoedema**

When the lymphatic system is blocked or damaged, lymph fluid accumulates in tissue causing long term swelling of parts of the body; lymphoedema. It most often affects the limb, but can also occur in the face, neck, abdomen, genitals, and internal organs. It can be present from birth but is also caused by damage to the lymphatic system – due to radiotherapy after cancer treatment – or through infection, severe injury or other trauma. Unfortunately lymphoedema cannot be prevented.

Individuals affected by lymphoedema seeking treatment should be seen by a specialist physiotherapist – i.e., a practitioner with an appropriate postgraduate qualification (complex decongestive therapy [CDT] / manual lymphatic drainage [MLD] certified).

Such physiotherapists manage the condition primarily using manual lymphatic drainage – draining lymph fluid from tissues – as well as deploying multi-layer bandaging, skin care and exercises. In some cases positioning may be used by the physiotherapist. They will also advise on the use of special sleeves or support stockings and give general advice to avoid aggravating the condition.

**Mental Health Problems**

Mental health problems affect one in four of us as at some point in our lives. Depression, post-traumatic stress disorder, anxiety and other problems can be triggered by personal and lifestyle pressures, such as bereavement, relationship breakdown, or job loss. They can also be the result of drug or alcohol dependency, illness or long term physical disability.

Physiotherapy has an important role to play in helping those with mental health problems. Research shows that regular exercise affects mood and increases self-esteem. Physiotherapists are able to assess people and devise a safe, enjoyable exercise tailored to their needs which will help to build their mental and physical well-being. They can also alleviate back pain and other physical symptoms which often accompany mental health problems by teaching relaxation techniques or by using massage and other touch related therapies.

**Nerve Disorders**

The nervous system is highly complex, and includes the brain, spinal cord and nerves in the face, body, arms and legs. Damage to the nervous system from either injury or disease can lead to difficulty in controlling movement. Sensation may also be affected, and there are more problems with speech, vision, swallowing, bowel and bladder control.

Mood, ability to concentrate and memory can also change. Physiotherapists working in neurology (the study of the nervous system) see people with a wide range of conditions including head injury, cerebral palsy, multiple sclerosis, Parkinson’s disease, spinal injuries and strokes. Following a full individual assessment, they will suggest a treatment and management plan. Treatment may involve stretches, exercises, and regular standing or walking. They can also offer advice on problems which occur at any stage of the condition.
Osteoarthritis

Osteoarthritis is probably the most common form of arthritis. It occurs when the cartilage covering the end of bones becomes thin and worn, making the joints stiff and painful to move. Osteoarthritis develops gradually over years most often affecting knees, hips, feet, hands, and sometimes the neck and lower back.

Physiotherapy plays an important role in treating this painful condition. After assessing your mobility and range of movement, physiotherapist will devise a treatment programme. A range of techniques are used to relieve pain and stiffness, and to improve mobility, co-ordination and posture. Manipulation and tailored exercises help to ease pain, build stamina and mobilise joints, while hydrotherapy is used to strengthen and relax muscles.

Other treatments used for pain relief include hot and cold treatments, TENS acupuncture and relaxation techniques (see Pain Relief). Physiotherapists can also give practical advice on doing everyday household tasks. If surgery is needed to replace your hip or knee, the physiotherapist will help you to regain muscle strength and movement (see Knee Replacement).

Pain Relief

Pain has a significant impact on our mental health as well as physical well-being, and its relief is a key element in treating a wide range of conditions from fractures and back pain to diseases such as arthritis and osteoporosis. After assessing your particular problem, the physiotherapist will draw on a wide range of techniques.

Mobilisation of joints can help reduce pain and stiffness while massage relieves tension and is a powerful form of relaxation. Exercising in water (see Water Therapy) is often used to relieve pain and increase mobility, while heat or ice can help to reduce inflammation as well as offering pain relief. The physiotherapist may also use a form of electrotherapy to speed up healing and relieve pain (see Electrotherapy). Other types of treatment include acupuncture and relaxation techniques such as breathing exercises. The physiotherapist may also recommend specific exercises, and a general fitness programme to increase energy and well-being.

Quadriceps

The quadriceps is a large muscle at the front of the thigh which helps to straighten the knee. Sudden stretching of the leg may tear the muscle especially in older people. Any knee disorder that brings pain or swelling such as arthritis or a sports injury, limits the full extension of the leg.

This causes the quadriceps muscle to begin to waste away, making the leg feel as if it is giving way when weight is placed on it. The Physiotherapist will also teach you exercises to help build and strengthen the muscle. They may also recommend hydrotherapy to help with mobility.

Repetitive Strain Injury

RSI is caused by repetitive movement leading to muscular pains or problems with nerves, ligaments and joints to the upper limbs. Usually work related, the incidence of RSI has risen dramatically with the use of word processors and other automated equipment, which need only a limited range of movement. Many groups of working people can be affected, including computer operators, typists, musicians, shop staff and factory workers.

Physiotherapists are trained and experienced in treating muscle, nerve joint and ligament complaints. After assessing the affected person's posture, workplace, lifestyle and work patterns, they will devise a treatment programme. This may include stretching exercises, mobilisation and electrotherapy, such as ultrasound, to speed up the healing process. If treatment is delayed, RSI can take longer to clear up. Physiotherapists can also give preventative advice.

Strokes

A stroke occurs when the normal flow to the brain is suddenly interrupted or blocked. This can be due to bleeding or haemorrhage from a blood vessel, or a clot in a blood vessel. The result is loss of function in this part of the brain. The person may have difficulty controlling movement one side of the body, affecting the head, arm leg and face. Speech, vision, swallowing, bowel and bladder can also be affected. The person’s emotions, ability to concentrate and memory may also change. Physiotherapists have a central role in helping people regain independence. After detailed assessment, a rehabilitation programme is planned taking into account lifestyles and home environment. Treatment may include guided movements of limbs and relearning how to sit, stand, walk and other everyday activities. Movements are built up gradually and may take months to achieve. Advice will also to carers on how to help.
**Tinnitus**

Tinnitus is a term used for ringing, buzzes, or other noises in the ear which do not come from external sound. While many people get a ringing in their ears after hearing a loud noise, for some people — about every five in a thousand, the noise is severe and constant enough to affect their whole lifestyle. Tinnitus is caused by microscopic hair cells in the inner ear becoming damaged, resulting in abnormal nerve signals to the brain which are perceived as sound.

There is no cure for tinnitus, but a number of techniques can bring significant relief. Tinnitus retraining therapy combines using a device to help mask the sounds with psychological measures. It is carried out by teaching relaxation techniques which reduce the tension, tiredness, and distress caused by tinnitus.

**Varus (club foot)**

Varus, also known as club-foot or talipes, is a birth defect where the foot is twisted out of shape or position. It is usually inherited but can also be caused by pressure on the feet from the mother’s uterus. The most common type of varus is called talipes equinovarus, where the baby’s foot is bent inwards and downwards.

The shin bone (tibia) may also be bent inwards. Sometimes both feet are affected. The condition is usually treated by regular, gentle manipulation of the foot and ankle beginning as soon as possible after birth. The physiotherapist will also teach the mother how to do these movements several times a day. A plaster cast or splinting is sometimes used to hold the foot in the right position. In some cases, surgery may be needed to correct the deformity. Following the removal of the plaster cast, the physiotherapist will use manipulation and exercise to maintain the foot’s correct position.

**Ulcers**

Physiotherapy is used to treat skin ulcers, where there is an open sore in the skin. Venous ulcers occur mainly on the ankles and lower legs. They are caused by chronic congestion in the veins due to failure of the valves which usually ensure effective blood flow. The physiotherapist elevates the leg to help the veins to drain and uses massage to reduce swelling and congestion.

Ultraviolet rays, ultrasound or other forms of electrotherapy are sometimes used to help the ulcer heal. Active exercises of the legs and ankles improves circulation and mobilises the joints. Arterial ulcers are the result of poor arterial blood supply. The physiotherapist will then use the same techniques as for venous ulcers to reduce infection and promote healing. Pressure sores can also cause ulceration and are treated similarly to venous ulcers. Through advice and positioning, exercise and massage, the physiotherapist can also help to prevent pressure sores.

**Water Therapy**

Physiotherapists have been using water therapy, or hydrotherapy as part of their wide range of treatment techniques for many years. Hydrotherapy takes place in a purpose built pool. You do not need to be able to swim to benefit from this kind of treatment. Use is made of the properties of water, including its buoyancy and turbulence. You will be closely supervised by a physiotherapist with specialist training, who will design an appropriate programme of exercises.

Benefits include strengthening muscles, improving mobility, balance and co-ordination, and reducing swelling. It is also an effective method of pain relief as well as promoting relaxation and enhancing well-being. Hydrotherapy can help people with muscle and joint problems such as neck and back pain, arthritis, and those with neurological conditions such as stroke, multiple sclerosis and Parkinson’s disease. It is also useful for women who are pregnant or who have recently given birth, athletes needing rehabilitation after injury and people recovering from a heart attack.
**X-Rays**

X-rays are probably the best known imaging technique and are particularly useful for checking damage or disease within bones. However, unlike practitioners such as chiropractors, physiotherapists rarely use X-rays in their work. This is because most disorders that they treat relate to mechanical problems and soft tissue such as muscles, cartilage and discs, which do not show up well on an X-ray.

**Your health**

With their detailed knowledge of human anatomy and movement, physiotherapists can help you to solve all kinds of problems during and after illness or injury, as well as offering preventative advice.

Physiotherapists work in a wide variety of settings, including hospitals, health centres, GP practices, pay hospitals, workplaces, schools and peoples’ own homes.

There are three main treatment routes if you are resident in the United Kingdom and wish to see a physiotherapist; via the NHS, via private practitioners, or via the independent sector. For more details, please see our guidance on access to treatment.

**Z plasty**

A surgical method for treating scarring which restricts normal movement of joints, or causes deformity. This type of scarring, known as contracture, is caused by shrinkage of tissue on the skin, muscles and tendons and may occur after extensive burns or other injury. Z plasty changes the direction of the scar in order to relieve skin tension caused by the tissues shrinking. Three incisions are made in a Z shape, with the central incision running along the scar. Two V shape skin flaps are then formed by cutting skin away from underlying tissue. The flaps are then transposed. This has the effect of redistributing the tension at right angles of the original defect. The flaps are then stitched in place. Physiotherapists are sometimes involved in assessing a person’s movement in order to establish whether Z plasty is needed.

**Websites**

- Agenda for Change: [www.nhsemployers.org](http://www.nhsemployers.org)
- Flying Start NHS: [www.flyingstart.scot.nhs.uk](http://www.flyingstart.scot.nhs.uk)
- NHS Jobs: [www.jobs.nhs.uk](http://www.jobs.nhs.uk)
- Nuffield Hospitals: [www.nuffieldhealth.org.uk](http://www.nuffieldhealth.org.uk)
- Organisation of Chartered Physiotherapists in Private Practice: [www.physiofirst.org.uk](http://www.physiofirst.org.uk)
- Physio Room: [www.physioroom.com](http://www.physioroom.com)
- Physio Site: [www.thephysiotherapysite.co.uk](http://www.thephysiotherapysite.co.uk)
- Work the World: [www.worktheworld.co.uk](http://www.worktheworld.co.uk)

**Publications**

- **Severe and Complex Neurological Disability: Management of the Physical Condition**
  Author: Pauline M Pope  ISBN: 978-0750688253 (£45.99)
  This book presents a holistic approach to the complete, long-term, day-to-day care of patients disabled by neurological conditions, emphasizing practices that promote physical well-being and minimize secondary complications. It focuses on physical management within the context of the lifestyle of the disabled person and primary caregiver. In addition, it highlights the difficulties commonly encountered when implementing a physical management regime, and discusses the importance of compromise.

- **Exercise Leadership in Cardiac Rehabilitation for High Risk Groups: An Evidence-Based Approach**
  Author: Morag Thow  ISBN: 978-0470515129 (£43.50)