PODIATRY

Introduction
Humans have undoubtedly always suffered from foot problems since evolving to bipedal gait and therefore will always need care and treatment for their feet and foot related problems, and therefore the profession of podiatry has developed. Podiatry is a relatively small and unknown profession in South Africa. Of the only 200 podiatrists registered in South Africa there are only about 150 practitioners in private practice. These practitioners are sparsely spread throughout the country but work mainly in the bigger cities, and therefore many areas do not have podiatric practitioners in their area or in their local hospitals. We are a small profession but we undertake to bring quality foot care to the people of our country. Podiatric training is offered at the University of Johannesburg, which is the only institution in South Africa and on the African continent to offer this course.

Podiatry
The foot is possibly the most neglected part of the body subject to trauma, neglect and even abuse. In spite of this, the foot endures this remarkably well. However, when undergoing abnormal stress, trauma and abuse, the feet often become a constant source of pain and disability.

The modern term podiatry is derived from the Greek pous (pod) meaning foot and iatreia (iatry) meaning healing or medical treatment. A podiatrist could thus best be described as a “physician of the foot”.

Podiatrist are broadly defined as specialised professionals who treat and advise on foot conditions and diseases in areas ranging from sports injuries and disorders in children, to the management of foot problems in older people, chronic diseases and people with disabilities. Podiatric treatment also includes the treatment and prevention of common foot problems like corns, callouses, ingrown toenails and athlete’s foot. More complex issues associated with structural and functional defects of the foot and lower limb are also treated.

Training
Training of podiatrists varies greatly throughout the world and a description of these variances is therefore beyond the scope of this paper. Suffice it to say that the training in South Africa is similar to that of other English speaking countries, namely the United Kingdom, Australia, New Zealand, Canada and to some extent, the United States of America.

In South Africa the modern specialty of podiatry requires at least four years of university training. At present the University of Johannesburg is the only centre in South Africa, and indeed Africa, where training is offered. Students qualify with

FOOTCARE AND PODIATRY: What pharmacists should know

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The aim of these articles is to educate the pharmacist on podiatry and the foot. The pharmacist has an important role to play in the dissemination of foot care advice along with the dissemination of all the other medical advice to patients.

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a Bachelor of Technology degree (BTech Podiatry), which is equivalent to an honours degree\textsuperscript{6,8} with the option of post-graduate training.\textsuperscript{5} The training is designed to maintain a balance between academic education and clinical practice.

The training for the student of Podiatry includes studies in the basic medical sciences (i.e. anatomy, biochemistry, pharmacology, physiology, etc) emphasising the health and conditions affecting the lower extremities. Diagnosis and treatment skills, including minor surgery, are developed in the third and fourth years.

The course is offered full time over a minimum of four years and the curriculum broadly covers the following subjects:\textsuperscript{4}

- The first year subjects are Chemistry, Socials Studies, Anatomy and Physiology and Podiatric Medicine 1.
- In second year students study Anatomy, Physiology, Podiatric Medicine 2, and Clinical Studies (including orthotic theory and manufacture).
- Third year studies include Pharmacology, Research Methods, Surgery, Podiatric Medicine 3, and Clinical Studies 2.
- In fourth year the podiatric medicine subjects specialise in podopadiatrics, podogeriatrics and podiatric sports medicine. Clinical studies continue with students participating in clinic sessions specialising in sport, paediatric, geriatric, chronic disease and primary health care. The students attend specialised clinics and ward rounds at various localities in and around the Johannesburg area.
- Lectures on specialised clinical subjects pertaining to pathology, medicine, surgery, orthopaedics, biomechanics and radiology are included in the third and fourth year of study.
- In the final year students are trained to perform skin and nail surgery under local anaesthesia.\textsuperscript{3} Health Management Systems are also taught which include private practice management and ethics.

To conclude the fourth (honours) year a research project is carried out by each student for the completion of studies.

Within the South African context most podiatrists are in private practice with a small number in academia and hospital/State Health positions. Many of the State Health posts have been frozen over the past few years as podiatry has not been identified as a priority within the public sector.

The profession in South Africa is closed and registration with the Health Professions Council of South Africa (HPCSA) is a pre-requisite to practice. Any qualified podiatrists from abroad wishing to practice in South Africa are required to undergo an entrance examination before being permitted to register.

In addition, as in most medical and related professions, continuing professional development is required annually to maintain registration with the HPCSA to practice.

The professional body representing local podiatrists is the South African Podiatry Association, which is a dynamic active body which promotes the profession and advocates foot care for all.

Chiropody versus Podiatry

The name chiropody is still in common use internationally along with podiatry. The title of podiatrist derives from Greek words combining ‘foot’ with ‘healer, or physician’, and is considered more etymologically correct, since there is very little treatment of the hand rendered by the profession.\textsuperscript{5}

The term podiatry originated in North America in 1958 and has now become the accepted term in the English speaking world. The former term chiropody is often used in some countries, such as the United Kingdom and New Zealand but the title is now considered to be an antiquated and etymologically incorrect term. The word chiropody derives from Greek meaning the treatment of the hand and foot. It should be noted that the titles podiatrist and chiropodist are interchangeable, with the term podiatrist being more favoured within the profession.\textsuperscript{5} The term podiatry is the only recognised term used in South Africa.

In most European countries a podiatrist is a supplementary/allied health professional (not a physician), who generally only treats the foot, ankle, and lower extremity through non-invasive procedures. They can however perform minor surgical procedures such as nail and skin surgery using local anaesthesia.

The United States is one of the few countries which grants more invasive surgical privileges to podiatric physicians. Although podiatrists worldwide do not attend traditional allopathic medical school, in many countries such as the USA, UK, and Australia they are granted privileges to perform surgical procedures of the foot and ankle. In the USA, podiatry graduates are Doctors of Podiatric Medicine (DPM), which is a four year “post-graduate” qualification.\textsuperscript{5}

The history of podiatry and podiatric medicine

The professional care of feet has been in existence since Egyptian times. The ancient Egyptian Ebers medical papyrus (c.1500BC) records some of the earliest remedies for foot problems. Many Egyptologists believe tending feet probably spanned the whole of Egyptian civilisation. There are records of the King of France employing a personal podiatrist, as did Napoleon. In the United States, President Abraham Lincoln suffered greatly with his feet and chose a chiropodist named Isachar Zacharie to tend to his footcare.\textsuperscript{5}

Podiatry first started in the United States in the mid 1800s. The first society of chiropodists was established in New York in 1895 with the first school opening in 1911. One year later the British established a society at the London Foot Hospital and a school was added in 1919. In Australia professional associations appeared from 1924 onwards. The first American journal appeared in 1907, followed in 1912 by an UK journal. In 1939, a training centre as well as a professional journal was introduced in Australia.\textsuperscript{5}

The history of South African podiatry

In South Africa formal podiatric training started in 1977 at the then Witwatersrand College for Advanced Technical Education in downtown Johannesburg.\textsuperscript{6,7} This institution then became the Technikon Witwatersrand and now the University of Johannesburg after amalgamating with the Rand Afrikaans University and Vista University. I was privileged to be one of the students on that first course of podiatry in South Africa in 1977, making me one of the pioneers in this field.

In 1978 Mr Andrew Clarke was brought over from Manchester, England to initiate and head up the new course in South Africa.\textsuperscript{7}
What does a podiatrist do?
As mentioned before, a podiatrist is concerned with the assessment and management of many conditions and injuries of feet and the lower limb.

Some of the more common conditions treated include:

Skin
Corns, calluses, keratotic heel fissures, warts, blisters, black heel syndrome, fungal infections, contact dermatitis, palmar plantar keratoderma, pitted keratolysis, impetigo, ulcers (various types), chilblains (perniosis)

Onychopathies
Ingrown nails (onychocryptosis), fungal nails (onychomycosis), blue nail (subungual haemorrhage), white nail syndrome (leuconychia), nail shedding (onycholysis), ram’s horn nail (onychodysplasia), involuted nails, hypertrophied nails (onychoisis), hyperkeratosis in the nail groove (onychophagia), subungual corn, paronychia, spontaneous nail shedding (onychomadesis), retarded nail growth (onychotrichia), Hippocratic nails, Beau’s lines and spoon shaped nails (koilonychias),

Foot function and biomechanics
Pes planus (flat feet), pes cavus (high arched feet), metatarsalgia, plantar fasciitis, bruised heel syndrome, digital deformities, hallux abducto valgus, hallux rigidus, Mortons neuraoma, Mortons syndrome, Severs disease.

The diabetic foot
Sports injuries related to lower limb and foot biomechanics

The rheumatoid foot
Foot circulatory disorders

Foot neurological disorders
The aging foot

Conclusion
The foot is a remarkable and complex anatomical and biomechanical structure that supports us and enables us to stand, walk and run. Unfortunately much can go wrong with our feet. It is important for the pharmacist to be adequately informed to advise the patient on footcare and when to refer the patient to their health care professional, preferably to a podiatrist.

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References:
1. Waddell JD. The Current Role of Podiatry in America. www.case.edu/med/epidbio/mphp439/Podiatry.htm

Further sources of information:
• Training
University of Johannesburg: 011 559 6167 www.uj.ac.za
• The profession and practitioners
South African Podiatry Association: 0861100249 www.podiatrist.co.za
• Statutory matters
HPCSA: 011 338 9300 www.hpcsa.co.za

This series of articles on podiatry will continue with:
• Common foot disorders and their management
• Foot care advice the pharmacist can give to his/her patients
• The foot in sport and running
• The diabetic foot