BONY FEET.

Normal feet in addition to their springy shock absorbing structure,have a layer of soft resilient tissue just under the skin.Often in imperfectly functioning feet, this soft tissue layer will be very much overworked and if this continues long enough the tissue will become dissipated, leaving the sole of the foot all skin and bone like the back of your hand.A soft cushion insole of closed cell foam rubber will help but this is no substitute for controlling the forces through these overloaded joints by prescribing functional orthotics.

SPORTS INJURIES.

The causes of sports injuries are many and various, so that an accurate diagnosis is difficult.Alot of so called 'overuse injuries' can be caused by excessive SUBTALAR JOINT PRONATION [described overleaf] and if an athlete does this and it is combined with an overloaded training schedule can lead to lower limb disaster but helped in the main by 'sports orthotics'.It is usually best to investigate this aspect of a recurrent injury problem before embarking upon more complex treatment regimes.

CHECK UP [1 HOUR BIOMECHANICAL EXAM].

Our biomechanical examination involves a 1 hour exam where a lot of measurements are taken to reveal such conditions as genu varum,genu valgum,tibial torsion,tibial varum,subtalar varus etc, all of which may produce over pronation of the forefoot, which in turn can lead to discomfort higher up the leg.

REPORT & DIAGNOSIS.

Following the exam a diagnosis is made and report finalised. If the diagnosis reveals a condition which can be expected to benefit from the use of an orthotic we then take a 'negative plaster of Paris bandage cast' with the subtalar joint in 'neutral' [called a 'slipper cast'] as described above. After the thermoplastic material has been heated to a high temperature it is vacuum formed onto the positive plaster of paris cast of the patients foot. Then the all important 'prescription' is added to the custom made mould which are wedges to control the subtalar joint to stop the foot rolling over into the abnormal destructive position [pronation].

BEWARE, of imitations! 'Off the peg' arch supports sold by various retail outlets can be inaccurate [no cast taken] & are issued without examination & have no prescription!

Fees For 2013 (since 2012):

A biomechanical check up appt. 1 hour is needed 'Please tell reception' and please bring a pair of shorts :£58.00 + £25 POSTAL ADMIN. FEE.

A pair of custom moulded orthotics with prescription;

BIRKO CORK OR RUBBER [CHEAPER FOR CHILDREN] = £210.00

POLYPROPYLENE OR E.V.A. {HIGH DENSITY} [sports devices & Geriatric] =£276.00

ACRYLIC [RIGID DEVICES FOR INACTIVITY]= £276.00

* A 50% DEPOSIT FOR THE DEVICES IS PAID ON THE EXAM DAY [RECEIPT GIVEN] WHICH IS REQUIRED BY THE LAB.. EXAM APPT. IS PAID ALSO

P.J.THOMPSON D.POD.M.,M.CH.S.,S.R.CH.
PODIATRIST/STATE REGISTERED CHIROPODISTPRACTICE:
24 BORE ST., LICHFIELD, STAFFS. WS13 6LL.
TEL.01543 250093. MOBILE 07814 602547

Orthotics to Prevent pain

www.therunnerspodiatrist.co.uk

01543 250093

24/26 Bore Street
Lichfield
Staffordshire
WS13 6LL

hcpc registered www.hcpc-uk.org

P J.THOMPSON.
D.Pod.M.,M.Ch.S.,S.R.Ch.

The Society of Chiropodists and Podiatrists

STATE REGISTERED CHIROPODIST. [est 1986]

Orthotics explained by

The Runners Podiatrist

FOOT PAIN--CORNS,BUNIONS,ETC.

One of the most common causes of foot problems is the instep[arch] flattening out due to excessive 'subtalar joint pronation' which allows the foot to flatten,lengthen and twist by just a small amount everytime the owner takes a step and the foot takes the full body weight.This leads to all sorts of signs and symptoms along with fatigue of the foot muscles and is common in people with jobs that necessitate standing for long periods, or lifting heavy weights or who overweight themselves;athletes & excessive pronators. It can also be caused by tiny faults in the shape of the foot bones.It produces a sort of 'wagging' movement of the forefoot within the shoe during walking.As the forefoot swings sideways and back at every step it keeps coming into contact with the shoe, and this repeated shoe pressure has the same effect as the pressure from a badly fitting shoe. It produces corns,callous,bunions and painful toe nails.

PREVENTION.

In order to prevent these problems it is necessary to reduce excessive [pronation] i.e. sideways movement of the forefoot by stabilising the instep and heel [subtalar joint]. One of the best ways to do this is by using a prescriptioned custom made support [called an orthotic] which limits the amount by which the instep is allowed to flatten and stabilises the heel.

ORTHOTICS EXPLAINED.

ORTHOTICS -[full name-Podiatric biomechanical orthotic devices], they are not to be confused with 'SIMPLE ARCH SUPPORTS'.Orthotics are permanent devices which are placed in the shoe to improve foot function in much the same way that spectacles improve imperfect eyesight.Orthotics will always have to be worn because deformities do not self correct with the wear of such devices; they are a corrective mechanism controlling the subtalar joint only while they are being worn. An orthotic may be designed to carry out any one or a combination of different functions.The more sophisticated custom moulded variety require specialist knowledge of **BIOMECHANICS AND ANATOMY.**

In order to manipulate the foot into it's ideal position for mould taking [known as subtalar neutral].This is carried out using plaster of Paris bandage on the foot [slipper cast] with the subtalar joint held in neutral until the cast has set.This negative cast [mould] is sent to the laboratory where it is filled with plaster of Paris to produce a 'positive' perfect model of the patients foot in subtalar neutral.Upon this positive the device is 'thermo' formed using one or more of the many materials now available [i.e.Polypropylene{SPORTS}, Acrylic {sedentary} and Birko cork {for children}]. Modern Biomechanical Orthotic devices are a very good tool and if used intelligently, will usually produce good results,especially with sports persons who readily abuse and overload their lower limb.They are not a magic wand and will not work miracles with already crippled feet.The best results are obtained when they are used preventatively following an early and accurate diagnosis. Most people who consider using orthotics are suffering some sort of discomfort and will often be experiencing the first symptoms of some structural or functional abnormality of their lower limb.

Usually these minor abnormalities can be revealed by a BIOMECHANICAL EXAMINATION which involves making precise measurements & observ ations which is called a prescription and sent with the casts to the lab.

MOTION CONTROL ORTHOTIC

An ORTHOTIC has it's upper surface tilted [via the prescription] to allow the foot to function at it's own natural angle [i.e. neutral at the subtalar joint] and will eliminate the wobble and arch flattening.This type of device is called a motion control orthotic, and stabilises the subtalar joint and prevents abnormal foot position and the signs and symptoms thereof.

PRONATION [OF THE SUBTALAR JOINT].

One of the best known conditions to respond to treatment with orthotics is over pronation.Pronation occurs when there is weight bearing on a foot which has an intrinsic misalignment in any area of the lower limb [a bony tilt] and the subtalar joint has to compensate for this anomaly thus causing the instep to partially flatten and elongate and overload the arch area.This causes the forefoot to 'waggle' sideways [laterally] when weight bearing.

KNEE PAIN.

This over-pronation will upset the normal alignment of foot,knee and hip and will put a sideways force on the knee joint along with a rotational force on it. An orthotic de-rotates the abnormal knee motion and sideways motion.

STIFF ANKLE.

Where problems are being caused by insufficient ankle flexion, an orthotic that has an addition underneath the heel will often help.

SHORT LEG.

Where one leg is found to be structurally shorter than the other, a heel raise will work provided the discrepancy is less than about 2 c.m.Hence, a build up can be added onto the orthotic.

BACK PAIN.

A leg length discrepancy or any other significant difference of structure or function between one leg and the other will cause the pelvis to tilt and can aggravate or even directly cause back pain and so too over pronation of the subtalar joint can cause a 'functional' leg length discrepancy which can have the same effect as a true osseous leg length discrepancy but treated with orthotics.

RIGID FEET.

Some people have the opposite kind of problem in that their feet are too rigid and have little or no springiness with which to absorb the shock of ground contact.This type of foot is often highly arched [called PES CAVUS] with the result that the heel and 'ball of the foot' [M.P.J.'S] take a pounding. A perfectly fitting orthotic will spread these forces over the whole of the plantar surface and if made of a resilient material,will also absorb much of the impact.

CLAW TOES.

Orthodigital splints using silicone can help juvenile claw toes,but orthotics can control excessive subtalar joint pronation and the effects of Flexor contracture of the lesser toes to stabilise the forefoot in such cases resulting in claw toes.