

**Referral Guidelines issued by Children's MSK Physiotherapy,
Children's Out-Patient's, NOC**

Refer by post to:

'Children's MSK Physiotherapy' at:

Nuffield Orthopaedic Centre

Windmill Road

Headington

Oxford

OX3 7HE

Tel. 01865 738087

Horton General Hospital

Oxford Road

Banbury

OX16 9AL

Tel. 01295 229432

East Oxford Health Centre

1 Manzil way

OX4 1XD

Tel. 01865 226777

Refer by secure email to:

orh-tr.nocpaedsteam@nhs.net

(Please write 'FAO Children's MSK Physiotherapy' in subject box.)

**Referral Guidelines for Children's MSK
Physiotherapy**



CHILDREN'S OUTPATIENTS AT;

NUFFIELD ORTHOPAEDIC CENTRE

HORTON GENERAL HOSPITAL

EAST OXFORD HEALTH CENTRE

These guidelines are intended for :

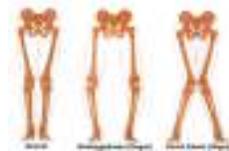
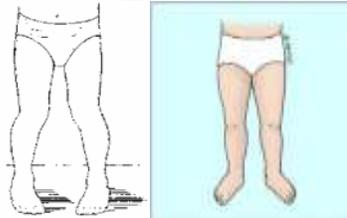
GP's, who wish to refer directly to Children's MSK Physiotherapy.

Health Visitors or Community Physiotherapists can make a referral through the GP, but not directly to the Children's MSK Physiotherapy Service.

The guidelines are intended to ensure that physiotherapy is the appropriate service for your patients.

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- Pain increasing with exercise but reducing with rest.
- Severe pain on extension.
- Referred pain in leg/arm.

URGENT referral

- If concern about Pars # or tumour.
- Absent/exaggerated reflexes.
- Changes in sensation
- Changes in bladder/bowel habit

References:

Fabry G, Cheng LX, Molanaers G: 'Normal and abnormal torsional development in children'. *Clinical Orthopaedics and Related Research*, 1994 No. 302

Staheli L: 'Intoeing and out-toeing in children'. *The Journal of Family Practice*, 1983 Vol. 16. 5

Capello T, Song KM: 'Determining treatment of flat feet in children'. *Current Opinion in Paediatrics* 1998 Vol. 10

Jones S, Khandekar S, Tolessa E: 'Normal variants of the lower limbs in Paediatric Orthopaedics'. *Int.'l J. Clin. Med.* 2013. 4. 12-17

Referral Guidelines for Paediatric Orthopaedic Physiotherapy Service. Royal Cornwall Hospitals.

'Common Foot problems in Children' . Physiotherapy Guidelines. Heatherwood and Wexham Park Hospitals

APCP 'Paediatric MSK Warning Signs' (Information leaflet)

APCP 'In-toeing Gait' (Information leaflet)

APCP 'Flat Feet in Young Children' (Information leaflet)

Back Pain in young Children & Adolescents

It is common for children/adolescents to suffer with back pain at some point in their development. Most symptoms are caused by postural dysfunction or musculo-skeletal 'mechanical' problem. (Tight hamstrings, over-use of smart phone/tablet).

Many can be referred to Physiotherapy to improve posture, strength & flexibility. However, there is an increased likelihood of serious pathology in the under 20 age group.

Refer to Children's MSK Physiotherapy:

- No Red Flags
- Flexible spine
- Tight muscles of hip/trunk (especially hamstrings)

Refer to Adolescent Rheumatology:

Known family history of Rheumatoid Arthritis/Psoriasis/Ankylosing Spondylitis

Plus

- Early morning stiffness which takes some time to loosen up.
- Positive inflammatory markers

Refer to Spinal Consultants:

- Pre pubertal children - especially < 6 years of age.
- Functional disability of 4+ weeks duration.
- Night pain especially waking with pain once already asleep.
- Fever, weight loss, malaise
- Postural changes - obvious scoliosis/kyphosis

Flat Feet (Pes Planus)

Babies starting to stand, toddlers and young children may have flat feet. It is a normal developmental foot posture and the medial arch of the foot may not develop until 5-6 years. The whole of the medial side of the foot may be in contact with the floor. There may be a degree of heel valgus. Falling over is very common in the under 4's and does not require referral.

No referral required:

- Asymptomatic flat feet
- No tightness in Achilles tendons
- Medial arches correct on tip-toe



Refer to Children's Physiotherapy:

- Tightness to ankle dorsiflexion
- Excessive shoe-wear at heels (medially)/ uppers of shoes distorted medially in under 5's
- Pain in feet, shins or knees in under 5's

Refer to Paediatric Orthopaedics:

- Arch of foot not corrected on tip-toe in over 5's
- Asymmetrical flat feet (especially with heel valgus)
- Daily activities significantly affected (complaints of tired legs, asking to be carried etc)

Refer to Orthotics/Podiatry:

- Painful flexible feet in over 5's
- Excessive shoe wear pattern medially at the heel.



Curly Toes

Congenital curly toes tend to affect the 3rd, 4th and 5th toes of one or both feet. They tend to become more noticeable with the onset of walking. Curly toes are often caused by intra-uterine moulding and are usually flexible. They generally do not cause any gait problems.



No treatment /referral required:

- Overriding toes are flexible/correctable.

Advice by the GP/Health Visitor:

- Stretches into extension can be shown if toes are a little tight.
- Bedtime routine of stretches after a bath works best. This may improve or maintain flexibility but will not 'cure' the positional deformity.

Refer to Paediatric Orthopaedics:

- Ongoing, significant problems such as blisters, rubs, pain, excessive tightness in tendons.
- Problem finding suitable footwear.
- 2nd or 3rd toes deviate medially or laterally at distal IP joint.

Tip Toe Walking

Toe walking is **only** normal as a transient phase in the early weeks of walking independently. It should last no more than 3 - 6 months.

Long-term toe walking can cause the fore-foot to broaden, and the calcaneus to be under-developed, which leads to issues with finding footwear to fit and often pain/arthritis in later life.

Often children will have an underlying hypermobility.

Children who in-toe (especially with MTA) sometimes progress to TTW.

Telling children to keep their heels down does not improve their gait.

Refer to Paediatric MSK Physiotherapy:

- Toe walking **more than** 50% of the time.
- Toe walking even in footwear.
- Under 7 years of age.
- Tight in Achilles Tendons

Refer to Paediatric Orthopaedic Surgeons:

- Over 7 years of age & persistent toe walker.
- Unilateral toe walking at any age (Consider DDH/Leg length discrepancy)
- Pain in feet/legs

Refer to Paediatric Neurology:

- If any abnormal lower limb neurology - clonus/increased muscle tone
- Abnormality of gait which increases as the child speeds up, or child is demonstrating posturing of arm/s.

Please do not refer to Community Paediatric Physiotherapy as there is evidence that stretches alone rarely work with the children who have tight Achilles tendons or an established tip-toeing gait.

Genu Valgum

Normal variant in children from 2 - 4 years old. In this age group, in standing, an inter-malleolar distance of 8cm is considered normal. It should self-correct by 6 - 7 years of age.

*Femoral ante-version can make knee valgus appear more severe. Ensure this is accounted for in examination.

Refer to Orthotics/Podiatry :

- Excessive planovalgus foot posture after 5 years of age.

Refer to Paediatric Orthopaedic Consultant :

- Asymmetrical valgus knees
- Excessive valgus knees after 6 years of age.



In-toeing

The child should have a well-established gait before this can be assessed, as it will often reduce with time. It is a normal variant for toddlers and young children to walk with their feet facing inwards. It is important to determine at which level the in-turning is occurring (hip, tibia, feet). In-toeing is more common than out-toeing and tends to be symmetrical. Resolution should occur by 8-10 years of age. Exercises/stretchers are not likely to improve an in-toeing gait.

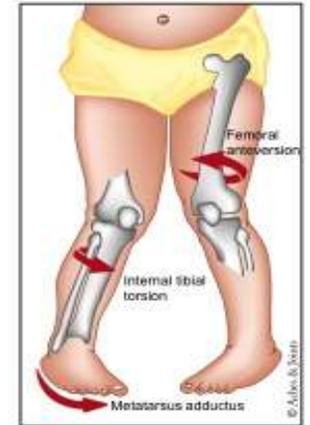
No referral required:

Increased internal hip rotation/Femoral ante-version

- Normal variant, at most severe between 4 - 7 years of age.
- Discourage 'W' sitting.

Internal tibial torsion

- Often asymmetrical
- Can be caused in-utero, by sleeping prone or by 'W' sitting with feet tucked inwards.
- Usually resolves spontaneously.
- Discourage 'W' sitting.



Primus varus

- Big toe adductus, with overactive hallux adductor muscle. (resolves once wearing shoes for a while.)

Refer to Children's MSK Physiotherapy:

Metatarsus adductus

- True tightening of medial structures of the foot, with medial crease.
- Curved lateral border of foot/feet.

Referral to Paediatric Orthopaedics:

- Child over 8 years old with pain, tripping over, significant deformity causing psychological distress.

Out-toeing

Normal variant. May be associated with knock knees and flat feet.

Referral to Paediatric MSK Physiotherapy not indicated.

Causes:

- External Femoral torsion
- External tibial torsion
- Marked calcaneo-valgus.

Refer to Orthotics/Podiatry :

- Flat feet causing issues with biomechanics (reduced push off/'slap-footed gait'.
- Abnormal shoe-wear pattern.
- Flexible feet with pain in feet/lower legs

Refer to Paediatric Orthopaedic Consultant:

- Persistent pain despite orthotics.
- Stiff feet/ankles



Genu Varum/Valgum ('Bow legs' and 'knock knees')



Genu Varum

- Ensure not Tibial bowing or internal tibial torsion.
- Normal variant (see image) & will change to valgus by 3^{1/2} years.
- Common in certain races.
- Can be associated with obese/overweight babies/toddlers & early walkers.

Do not require referral to physiotherapy.

but

Refer to Paediatric Orthopaedic Consultant:

- Persists after 2 years of age
- Getting progressively worse from 12-18months (consider Rickets/ Blount's - usually bilateral)
- Asymmetrical knee varus.