

## Paediatric Orthopaedic Specialist Clinics at Western Health:

Western Health provides the following Paediatric Specialist Clinics for patients up to 17 years of age who require assessment and management of Paediatric Orthopaedic conditions. Patients will be triaged by Orthopaedic Consultant / Orthopaedic Registrar into management pathways according to specific clinical requirements:

**The Paediatric Specialist clinics provided at Joan Kirner Women's and Children's at Sunshine Hospital only.**

**The Paediatric Specialist Clinics at Western Health that referrals may be triaged into include:**

1. **Paediatric Fracture clinic** – Paediatric Orthopaedic Fractures, joint sprains, or dislocations.
2. **Paediatric Orthopaedic clinic** - Paediatric Orthopaedic condition of the upper and lower extremities.
3. **Paediatric Orthopaedic Physiotherapy-Led Clinic:** Advanced Practice Physiotherapy led assessment and management of children (aged  $\leq 18$  years) with Paediatric Orthopaedic conditions.

For referral to Paediatric Physiotherapy at Joan Kirner Women and Children's at Sunshine Hospital please refer to:

- [Paediatric Allied Health Specialist Clinics \(westernhealth.org.au\)](https://www.westernhealth.org.au)

## Conditions not seen by Paediatric Orthopaedic Specialists at Western Health:

Please refer the following to Paediatric Plastic Surgery at Joan Kirner Women's and Children's at Sunshine hospital.

- Hand injuries (excluding scaphoid)

Refer the following to The Royal Children Hospital Non-scaphoid hand injuries or conditions- please refer to:

- Spine
  - Trauma Acute / Chronic
  - Major deformities (Scoliosis / Kyphosis)
- Tumors, Bone or Soft tissue - refer to The Royal Children's Hospital
- Limb deficiency.

## Paediatric Orthopaedic Alarm Symptoms:

The following Orthopaedic conditions, should be referred immediately to the Sunshine Hospital Emergency Department:

- Acute compartment syndrome
- Acute musculoskeletal infection (Septic arthritis / Acute Osteomyelitis)
- Slipped Upper Femoral Epiphysis (SUFE)
- Acute limp or non-weight bearing child.

### Injuries that are deemed urgent:

- Concerns for non- accidental injury
- Joint dislocation.
- Fractures:
  - Associated with an open wound or broken skin.
  - Are in poor position requiring reduction.
  - Intra-articular
  - Pathological

## Access & Referral Priority Paediatric Orthopaedic:

The clinical information provided in your referral will determine the triage category. The triage category will affect the timeframe in which the patient is offered an appointment.

<h3>URGENT</h3> <p>Appointment timeframe 30 days.</p>	<h3>ROUTINE</h3> <p>Appointment timeframe greater than 30 days, depending on clinical need.</p>
<p>Refer to Paediatric Orthopaedic Alarm symptoms for referrals requiring presentation to the Emergency Department.</p> <p><b><u>All Acute Injuries requiring timely review and management:</u></b></p> <p><b>Fracture/ Soft Tissue /Ligament:</b></p> <ul style="list-style-type: none"> <li>Any fracture involving the joint and/or growth plate or joint.</li> <li>More than slightly displaced and or angulated fractures.</li> <li>Please refer to Paediatric Fracture clinic</li> </ul>	<p><b>Injuries</b></p> <ul style="list-style-type: none"> <li>Non urgent injuries requiring ongoing review.</li> </ul>
<p><b>HIPS</b></p> <p>Developmental Dysplasia of the Hip (DDH)</p> <ul style="list-style-type: none"> <li>Neonates with confirmed abnormal clinical examination</li> <li>Neonates with confirmed abnormality on ultrasound and/or neonates at high risk of DDH</li> </ul> <p>Other Hip Disease</p> <ul style="list-style-type: none"> <li>Acute pain requiring crutches or not being controlled with simple analgesics.</li> <li>Inability to weight bare.</li> <li>Undiagnosed DDH</li> <li>Perthes Disease</li> </ul> <p><b>Note:</b> Slipped Upper Femoral Epiphysis (SUFE) send directly to the Emergency Department.</p>	<p><b>HIPS</b></p> <p>Developmental Dysplasia of the Hip (DDH)</p> <ul style="list-style-type: none"> <li>Previously diagnosed and treated for ongoing management and review.</li> </ul> <p>Other Hip Disease</p> <ul style="list-style-type: none"> <li>Impingement on x-rays for advice on prognosis and consideration of surgery</li> <li>Labral tear</li> </ul>
<p><b>Knee</b></p> <p>Anterior Cruciate Ligament ACL injury</p> <ul style="list-style-type: none"> <li>Acute locked knee</li> <li>Stiff knee</li> <li>Significant instability or giving way.</li> </ul>	<p><b>Knee</b></p> <p>Anterior Cruciate Ligament ACL injury</p> <ul style="list-style-type: none"> <li>Chronic injury</li> <li>Intermittent instability symptoms</li> </ul> <p>If ongoing concerns, please send further referral with escalation concerns:</p>

**Note:** Initial management if the patient has an acute injury – knee splint, use protected weightbearing with crutches and refer for urgent assessment.

## Meniscal Injury

- Locked knee
- Any acute meniscal injury in a paediatric patient

**Note:** if the patient has bucket-handle tear or locked knee refer to ED for urgent assessment.

## Osteochondral fracture

Locked knee (from any cause)

- Increased catching and locking
- Increased pain

## Upper Limb

### Shoulder instability

- Shoulder instability that is dislocated or irreducible – refer into Emergency department.
- Previous dislocation episode with any evidence of fracture on imaging (Xray, CT or MRI)

## Upper limb / Congenital Malformations

### Shoulder instability

- two or more recurrent instability episodes
- 'apprehensive' for instability and inability to play sports or participate in activities.
- multi-directional instability (MDI) following failure of non-operative physiotherapy.
- Post traumatic.

### Shoulder Stiffness

- Deformity / malformation

### Osteochondritis dissecans of the elbow

**Note: Limb deficiency send to RCH**

## Spine

*The following Urgent spinal concerns need to be referred to The Royal Children's Hospital.*

- Trauma Acute / Chronic
- Major deformities (Scoliosis / Kyphosis)

## Spine

Paediatric Orthopaedic Specialty Clinics at Western Health are not primarily a spine service; however, we do have the capacity to see milder cases with a view to facilitate imaging and triage.

## Foot and Ankle

### Congenital Talipes Equinovarus (Clubfoot)

- New / confirmed diagnosis.

## Foot and Ankle

### Congenital Talipes Equinovarus (Clubfoot)

- Previously diagnosed and treated for ongoing management and review.

### Flat Feet

- Ridged flat foot.
- Painful flat foot asymmetry
- Localised tenderness
- Difficulty in purposeful activities i.e., Running and jumping.

## In-Toeing

- Exceeds normal limits for age.
- Asymmetrical deformity
- Tripping in school aged children affecting participation in activities.
- Progressive in-toeing
- Associated patella pain
- Hypertonicity

## Out-Toeing

- Progressive out-toeing
- Functional difficulties
- Asymmetrical deformity
- Thigh-foot angle exceeds 30 – 40 degrees.

## Curly Toes

- > 5 years of age
- Deformity is significant causing rubbing and or callous formation.

## Toe Walking

- Inability to dorsiflex foot beyond neutral, stand with heels down or walk on heels.
- Signs of cerebral palsy with hypertonia, hyperlexia or ataxia
- Calf hypertrophy
- Asymmetry
- Abnormal spine examination

## Legs

### Bowlegs

- Persistence of bowlegs after three years of age.
- intercondylar separation is more than 6cm.
- asymmetrical deformity
- excessive deformity
- progressive deformity or lack of resolution
- pain after a traumatic event
- other associated skeletal deformity such as height below fifth centile for age

### Knock Knees

- persistence of significant knock knees beyond the age eight years.
- intermalleolar separation more than eight centimetres
- asymmetrical deformity
- progressive deformity or lack of spontaneous resolution

- pain after a traumatic event
- other associated skeletal deformity such as height below fifth centile for age.

## Osgood – Schlatter Disease

- Symptoms not resolving with conservative treatment.
- Symptoms persisting > 18 months.

## Congenital Malformations

## Condition Specific Referral Guidelines:

Key information enables Western Health to triage patients to the correct category and provide treatment with fewer visits to specialist clinics, creating more capacity for care. If key information is missing, you may be asked to return the referral with the required information.

Condition:	Key Information Points:	Clinical Investigations:
<p><b>Fracture / soft tissue injuries.</b></p>	<ul style="list-style-type: none"> <li>• History and physical examination</li> <li>• Referral must include:                             <ul style="list-style-type: none"> <li>➤ Date of injury</li> <li>➤ <b>Injury mechanism</b></li> <li>➤ Treatment provided.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• XR reports and details of radiology service provider</li> </ul>
<p><b>Developmental Dysplasia of the Hip (DDH)</b></p> <p><b>Practice note</b></p> <p><b>Indications for referral to DDH clinic:</b></p> <ul style="list-style-type: none"> <li>• Neonates with confirmed abnormal clinical examination</li> <li>• Neonates with confirmed abnormality on ultrasound and/or neonates at high risk of DDH</li> </ul> <p><b>Neonates deemed at increased risk of DDH:</b></p> <ul style="list-style-type: none"> <li>• Breech presentation after 32/40 Gestation</li> <li>• DDH in a first degree relative (parent/sibling) requiring treatment.</li> <li>• Presence of a congenital anomaly of the lower limb / foot</li> </ul> <p><b>Exclusions:</b></p> <ul style="list-style-type: none"> <li>• 'Clicky hips' and asymmetrical thigh creases alone are not evidence for DDH in the absence of DDH shown on imaging.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Birth History (Delivery method, Babies Presentation, Gravidity and Parity, Gestational age)</li> <li>➤ Family history</li> <li>➤ Clinical examination findings</li> <li>➤</li> </ul>	<ul style="list-style-type: none"> <li>• Hip ultrasound if aged &lt; 6 months of age (paediatric ultrasound service if possible)</li> <li>• Plain x-ray if &gt; six months of age. (Paediatric radiology service if possible).</li> <li>• Include date and facility where images taken and accompanying reports</li> </ul>
<p><b>Congenital Talipes Equinovarus</b></p>	<ul style="list-style-type: none"> <li>• Birth History (Delivery method, Babies Presentation, Gravidity and Parity, Gestational age)</li> <li>• Family history</li> <li>• Clinical signs</li> </ul>	

# Western Health Specialist Clinics Access & Referral Guidelines

Condition:	Key Information Points:	Clinical Investigations:
<b>Slipped Upper Femoral Epiphysis – SUFE</b>	Do not refer to Paediatric Specialist Clinic -> Refer patient directly to the Emergency Department.	
<b>Perthes Disease</b>	<ul style="list-style-type: none"> <li>history and physical examination findings</li> </ul>	<ul style="list-style-type: none"> <li>Plain X-ray (AP and frog leg views)</li> <li>Radiology reports</li> <li>Include date and facility where images taken and accompanying reports</li> </ul>
<b>Foot and Ankle</b>	<b>Flat Foot</b> <ul style="list-style-type: none"> <li>history and physical examination findings</li> </ul>	<b>Flat Foot</b> <ul style="list-style-type: none"> <li>For ridged flat foot only: weight-bearing Xray (AP, lateral and oblique)</li> <li>Include date and facility where images taken and accompanying reports</li> </ul>
	<b>In-toeing + Out-toeing</b> <ul style="list-style-type: none"> <li>history and physical examination</li> </ul> <p><u>Practice tip</u></p> <ul style="list-style-type: none"> <li>Place in prone and check range for internal and external rotation of the hip, thigh-foot angle and foot posture.</li> </ul>	<b>In-toeing + Out-toeing</b> <ul style="list-style-type: none"> <li>Xray not clinically indicated.</li> </ul>
	<b>Curly toes</b> <ul style="list-style-type: none"> <li>history and physical examination findings</li> </ul>	<b>Curly toes</b> <ul style="list-style-type: none"> <li>Xray not clinically indicated</li> </ul>
	<b>Toe walking</b> <ul style="list-style-type: none"> <li>history and physical examination findings</li> </ul>	<b>Toe walking</b> If suspicious order: <ul style="list-style-type: none"> <li>Spinal Xray</li> <li>CK</li> <li>Include date and facility where images taken and accompanying reports</li> </ul>
<b>Spine</b>	<b>Back pain</b> <ul style="list-style-type: none"> <li>history and examination</li> <li>Duration of pain</li> </ul>	<b>Back Pain</b> <ul style="list-style-type: none"> <li>Radicular signs or symptoms - obtain axial imaging (CT or MRI)</li> <li>If Alarm for spinal deformity (scoliosis/kyphosis) then an upright complete spine x-ray (PA and lateral)</li> <li>Include date and facility where images taken and accompanying reports</li> </ul>
	<b>Kyphosis</b> <ul style="list-style-type: none"> <li>History and examination</li> </ul> <p><u>Practice tip</u></p> <ul style="list-style-type: none"> <li>Observe for Kyphosis prominence when patient bends forward.</li> </ul>	<b>Kyphosis</b> <ul style="list-style-type: none"> <li>Standing X-ray of complete spine both PA and lateral to assess for abnormal curvature.</li> <li>Include date and facility where images taken and accompanying reports.</li> </ul>



Condition:	Key Information Points:	Clinical Investigations:
	<p><b>Scoliosis</b></p> <ul style="list-style-type: none"> <li>• history and examination</li> <li>• Please include any asymmetry findings:                             <ul style="list-style-type: none"> <li>➤ shoulder / trunk or waist</li> <li>➤ Rib or lumbar on forward bend</li> <li>➤ leg length discrepancy.</li> </ul> </li> </ul>	<p><b>Scoliosis</b></p> <ul style="list-style-type: none"> <li>• X-Ray</li> <li>• Include date and facility where images taken and accompanying reports.</li> </ul>
	<p><b>Spondylolisthesis / Spondylolysis</b></p> <ul style="list-style-type: none"> <li>• history and examination</li> <li>• Including details of hyperlordotic lumbar spine</li> <li>• hamstring tightness or any radicular findings</li> </ul> <p>Details of Pain with activity and impact on daily activities</p>	<p><b>Spondylolisthesis / Spondylolysis</b></p> <ul style="list-style-type: none"> <li>• Standing PA/L XR of the lumbar spine</li> <li>• Standing oblique radiographs of the lumbar spine</li> <li>• MRI of the lumbar spine</li> </ul> <p>Include date and facility where images taken and accompanying reports</p>
<b>Legs / knees</b>	<p><b>Bowed Legs</b></p> <ul style="list-style-type: none"> <li>• history and examination</li> <li>• Details if any pathological causes such as rickets and Blount's disease.</li> </ul>	<p><b>Bowed Legs</b></p> <p>Xray of knees if:</p> <ul style="list-style-type: none"> <li>• unilateral deformity</li> <li>• progressive deformity</li> <li>• lack of spontaneous resolution aged over three years old.</li> </ul>
	<p><b>Knocked knees.</b></p> <ul style="list-style-type: none"> <li>• history and physical examination findings</li> <li>• Patient height and weight percentiles.</li> </ul>	<p><b>Knocked knees.</b></p> <p>X-ray of knees if:</p> <ul style="list-style-type: none"> <li>• unilateral deformity</li> <li>• progressive deformity</li> <li>• lack of spontaneous resolution after age of eight.</li> </ul>
	<p><b>Osgood – Scatter Disease</b></p> <ul style="list-style-type: none"> <li>• history and physical examination findings</li> <li>• Details of conservative management undertaken</li> </ul>	<p><b>Osgood – Scatter Disease</b></p> <ul style="list-style-type: none"> <li>• Plain XR</li> </ul>

# Western Health Specialist Clinics Access & Referral Guidelines

Condition:	Key Information Points:	Clinical Investigations:
<p><b>Pelvis and Hips</b></p> <p><b>Practice tip:</b></p> <ul style="list-style-type: none"> <li>Trendelenburg – single leg stance or waddle when walking is a sign of hip disease.</li> <li>loss of range of motion in flexion and internal rotation &lt;90 &lt;0, suggestive of impingement</li> </ul>	<p><b>Adolescent Hip Disease</b></p> <ul style="list-style-type: none"> <li>history and physical examination findings including details of any ligamentous laxity.</li> <li>analgesia used</li> </ul>	<p><b>Adolescent Hip Disease</b></p> <ul style="list-style-type: none"> <li>weight bearing AP pelvis, faux profile both hips, Dunn lateral, Von Rosen film.</li> </ul>
<p><b>Acute Knee injuries</b></p>	<p><b>Patella Dislocations</b></p> <ul style="list-style-type: none"> <li>Timeframe of injury</li> <li>history and physical examination</li> </ul> <p><b>Anterior Cruciate Ligament injury</b></p> <ul style="list-style-type: none"> <li>Timeframe of injury</li> <li>history and physical examination findings</li> </ul> <p><b>Other knee ligamentous injuries</b></p> <ul style="list-style-type: none"> <li>Timeframe of injury</li> <li>history and physical examination findings</li> </ul> <p><b>Meniscal Injury</b></p> <ul style="list-style-type: none"> <li>history and physical examination findings</li> </ul>	<p><b>Patella Dislocations</b></p> <ul style="list-style-type: none"> <li>plain X-rays (AP, lateral, notch and skyline) to exclude acute fracture.</li> <li>consider MRI if clinically suspicious.</li> </ul> <p><b>Anterior Cruciate Ligament injury</b></p> <ul style="list-style-type: none"> <li>plain X-rays (AP, lateral, notch and skyline) If acute fracture send directly to emergency dept.</li> <li>consider MRI if clinically suspicious.</li> </ul> <p><b>Other knee ligamentous injuries</b></p> <ul style="list-style-type: none"> <li>Plain X-rays (AP, lateral, notch and skyline) to exclude osteochondral fractures.</li> <li>consider MRI if clinically suspicious.</li> </ul> <p><b>Meniscal Injury</b></p> <ul style="list-style-type: none"> <li>plain x-rays (AP, lateral, notch &amp; skyline) If acute fracture send directly to emergency dept.</li> <li>consider MRI if clinically suspicious.</li> </ul>
<p><b>Upper limb</b></p>	<p><b>Shoulder Instability</b></p> <ul style="list-style-type: none"> <li>Standard history and physical examination</li> </ul> <p><b>Shoulder stiffness</b></p> <ul style="list-style-type: none"> <li>Standard history and physical examination</li> <li>Treatment received to date (e.g. Physio)</li> </ul>	<p><b>Shoulder Instability</b></p> <ul style="list-style-type: none"> <li>X-ray of shoulder</li> </ul> <p><b>Shoulder stiffness</b></p> <ul style="list-style-type: none"> <li>Xray of shoulder</li> </ul>