

Paediatric orthopaedics

Disclaimer: Read the disclaimer at medimaps.co.uk/disclaimer
References: 1. Paediatrics conference, BMI Healthcare, Feb 2018. 2. Childhood healthcare conference, New Cross Hospital 2018. 3. Orthopaedic surgeon Mr Dunbar, webinar Sept 2020. 4. GP Update webinar Mar 2021. 5. cem.scot.nhs.uk/paed/limpingchildguideline.pdf 6. Brighton and Sussex NHS Sept 2019. 7. Paediatric consultant MediConf webinar, June 2023.

Limb length discrepancy

Limb length discrepancy of < 2cm = shoe raise
Can have 1cm shoe raise inside the shoe and live with the 1cm discrepancy.
2-5cm = damage the growth plate in the good leg i.e. epiphyseodesis
>5cm make the limb longer. 1cm per month.

In toeing

In toe, generally due to hip. Look to see if the knee cap has turned inwards as well. There is a natural tendency for the femur to straighten out until 9-10yr, and then it stays in whatever position it is. no evidence that causes problem later in life. doesnt stop them doing anything, no treatment. you cant twist bone unless you cut the bone = derotation osteotomy. < 2% he operates on them for in toers. when they are compus mentus adolescent. Red flag if one foot externally toratoad. Think SUFE.

Perthes

Perthes Less important. We dont knw how to treat. Bart Simpson age 4-9. 12-18months. Blood supply to femoral head gets cut off. Always comes back. In the mean time the femoral head becomes soft. Try to mould the head into the normal acetabulum. No evidence of op if < 7yrs. ITs all about containment.

Flat feet

Two types. Dont worry about flexible flat feet. Du to ligament laxity. If stand on tip toes and arch comes back and bilateral = normal. 30% of 3y have flat feet. its not a disease. 10% of adults have it. If ache use arch support. if doesnt work then throw away. He tries not to use insoles. Only if symptomatic. It will not make arch come back. If stiff or painful, when tries to stand on tip toes. Do xray. Tarsal coalition. Can excise if symptomatic.

Bow legs

- Normal for varus angle at knees for children. - Straightens out and turns into valgus angle by 5-7y - Adults have 5-8o valgus. - So if still significant deformity refer before the grown plates close in the knee (girls 18/12 after puberty, boy 14y). - Before growth plate closure can alter grown angles. - Once closed, osteotomies i.e. cut bones, to correct angles.

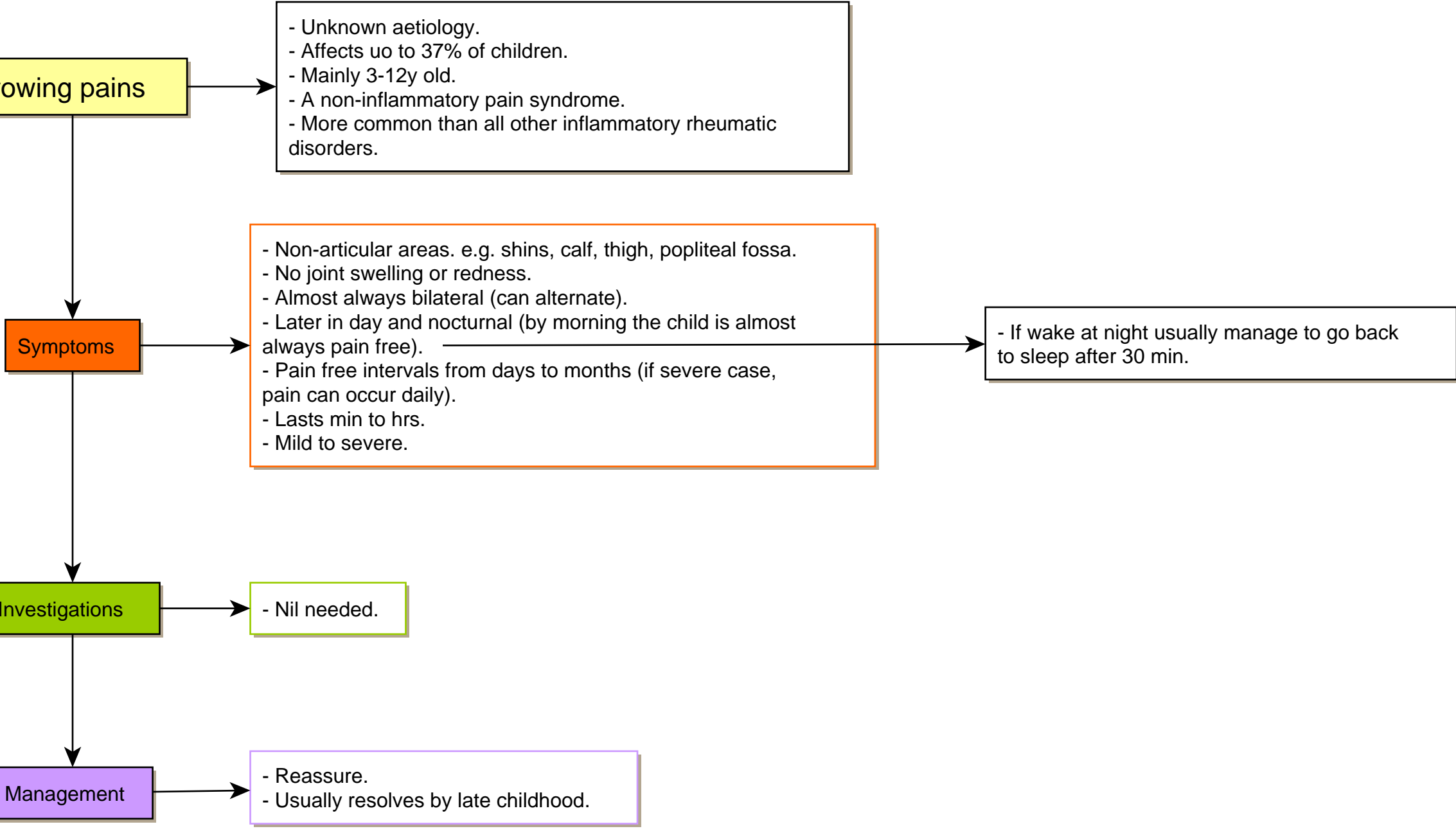
DDH

If feels cikky hip just get USS done. Female gender is greater risk factor of a male child who is breech and FHx ! Ideally pick up early and put in cast. 95% of serious pathology can be picked up on xray. If hip or thigh pain, do xray in child.

Developmental milestones

- 3/12 = if marked asymetry in use of limbs, trunk posture, head position = think about motor ability deficit. - 6/12 = can roll onto back. - 9/12 = should be able to get out of one position and to another. There world is now bigger so they should be able to be part of it and hence move. If not red flag. - 1yr = should be crawling or bottom shuffling. - Only 18/12 is threshold for concerns about not walking as long as all else is fine motor wise. - Rate of development varies from child to child. - Physio cant speed up normal delay in development. - Don't use walkers and bouncers as worsen tip toe walking. - Talipes which is mobile (positional) to the midline = refer to physio as routine. But if fixed needs urgent physio referral.

Growing pains



All ages - Infections: septic joint, osteomyelitis, discitis, soft tissue. - Trauma: bony injury, sprain / strain, foreign body. - NAI. - Acute lymphoblastic leukaemia. - Bony tumours e.g. spine or long bone. - Rheumatological disorders and reactive arthritis. - Intra-abdominal pathology or inguinoscrotal disorders e.g. testicular torsion. - Functional limp.

1-3y - Toddler's #. - Missed Developmental Dysplasia of Hip. - Neuroblastoma. - Osteomyelitis. - Splinter in foot. - NAI.

4-10y - Transient synovitis (irritable hip). - Perthe's disease. - Acute lymphocytis leukaemia.

Teenagers. - Slipped Upper Femoral Epiphysis (SUFE). - Osgood schlatter's disease. - Muscle strain. - Bony problem. - Note: Transient synovitis unlikely >10y.

