**CPIP assessment for children with GMFCS level 4- 5 CP**

The NICE guideline (Cerebral palsy in under 25s: assessment and management NICE guideline [NG62] Published: 25 January 2017) advises that children and young people with cerebral palsy who have the below criteria are at risk of having low bone mineral density and therefore have an increased risk of low impact fractures:

* non-ambulant (GMFCS level IV or V)
* vitamin D deficiency
* presence of eating, drinking and swallowing difficulties or concerns about nutritional status
* low weight for age (below the 2nd centile)
* history of low-impact fracture
* use of anticonvulsant medication.

It is advised that health professionals recognise the increased risk and inform the children, young people and their parents and carers. If identified as at risk, then this should be considered when completing all assessment and treatment activities.

The CPIP pathway includes a standardised physical assessment. The measurements included are a guideline. These help to inform how the musculoskeletal changes associated with the growing child with cerebral palsy are affecting the child’s overall ability to function. The assessments are adapted for both children with GMFCS level 1-3 and 4-5. The level 4-5 assessment limits changes of position of the child during the assessment to help maintain their comfort.

Knowing the range of movement of the child’s lower limbs allows the assessor to refer on for appropriate treatment if needed and informs how a child can access postural management equipment. Understanding the range of movement available is extremely important when considering positions and postural management equipment to use with a child.

We would advise that movements are completed very gently by an appropriately trained assessor, to establish if a range of movement is available. If the assessor is concerned that the movement is limited or painful, they should stop due to the risk of injury. If they are aware that the child has had previous low impact fractures, they may feel that the risk of injury is too great to complete the assessment and should adapt or miss out the associated movement as they feel appropriate.

Children that are in this group can still fracture even with the most careful handling. The risk of completing the assessment is often balanced by being aware of movements that the child can/cannot do so that appropriate postural management can be performed. If it is found that a range of movement is significantly limited, then it is important to refer this on to orthopaedics for further assessment. Recognising reduced range of movement early has allowed for early intervention. This has been shown to prevent children having other issues such as hip dislocation and scoliosis.

We would encourage all teams working with this group of children and young people to follow the NICE guidance on treating children who are found to have low bone density.

Below are some useful resources on bone density in children with CP and information on the CPIP Pathway and evidence for its use:

Cerebral palsy in under 25s: assessment and management NICE guideline [NG62] Published: 25 January 2017 [Recommendations | Cerebral palsy in under 25s: assessment and management | Guidance | NICE](https://www.nice.org.uk/guidance/NG62/chapter/Recommendations#information-on-other-comorbidities)

Managing Bone Health of children with Cerebral Palsy- PDF from Belfast attached

[RECORDED WEBINAR - Bone Health | Association of Paediatric Chartered Physiotherapists (csp.org.uk)](https://apcp.csp.org.uk/content/recorded-webinar-bone-health) For APCP Members. Angela.Wing@wales.nhs.uk

[Cerebral Palsy Integrated Pathway | Physiotherapy | United Kingdom (cpipuk.org)](https://www.cpipuk.org/)

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