



MANAGING THE BONE HEALTH OF CHILDREN WITH CEREBRAL PALSY

Identify patients at increased risk of osteoporosis

- Non-ambulatory
- Poor nutrition / feeding difficulties
- Underweight/ low body fat
- Previous pathological fracture
- Long term anticonvulsant therapy
- Co-morbid medical conditions likely to adversely affect bone health
- Known vitamin D deficiency

Dietary assessment

- Maximise Calcium and Vitamin D intake

Physiotherapy

- Weight bearing exercise / standing as appropriate

Vitamin D Prophylaxis

- **ALL CHILDREN < 5YRS 400 UNITS VITAMIN D3 DAILY**
- Children at risk of fragility fractures > 5yrs 600-800 units daily eg: *Abidec D3*

Blood tests

- Consider checking Vitamin D level and Bone profile (Ca, PO₄, ALP, Alb) annually.
 - Increase to treatment dose of Vitamin D if deficient despite prophylaxis.
 - Calcium unlikely to be low in these patients. Maximising dietary intake should be sufficient. Consider supplementation if necessary.
 - Consider checking PTH levels if Vit D levels are low despite adequate intake

Radiology

- Consider X-Rays
 - Wrist for rachitic changes if Vitamin D levels low.
 - Any symptomatic area to assess for possible fracture
 - Lateral spine to assess for vertebral compression fracture if:
 - Back pain
 - Tenderness over spine on examination
 - Other pathological fracture
- Consider DEXA Scan for assessment of Bone Mineral Density
 - If child has had a pathological fracture and > 5yrs old. (Repeat annually)

Tertiary Referral to Bone Health Specialist / Endocrinology for further management eg: bisphosphonates

- 2 x pathological fractures or
- Vertebral compression fracture