

What can I do?

- Allow your child safe sun exposure (short periods in the sun with uncovered forearms, hands or lower legs, and without sunscreen. Do not allow the skin to tan or burn during this time)
- Ensure your child has a diet containing calcium and vitamin D rich foods
- Ensure your child takes their Vitamin D supplement every day
- Help your child to perform any exercises as advised by your physiotherapist
- Ensure that you and those looking after your child plan any movements or transfers to reduce the risk of injury. Use any aids as advised

Please inform your health professional (nurse, physiotherapist or Community Pediatrician) if your child suffers a fracture or an operation on their bones is being planned

Where can I find out more?

Please contact your school nurse, therapists, dietician, or doctor if you would like to discuss this further.
Email: cpaediatics@nhs.net

Resources:

<https://www.nhs.uk/conditions/vitamins-and-minerals/vitamin-d/>
<https://www.nhs.uk/live-well/healthy-body/sunscreen-and-sun-safety/>

If you would like to have information translated into a different language, please contact the Equality and Diversity Team at:
EqualityandInclusion@oxfordhealth.nhs.uk

Arabic يُرجى الاتصال بنا إذا كنتم ترغبون في الحصول على المعلومات بلغة أخرى أو بتسبيق مختلف.

Bengali আপনি এই তথ্য অন্য ভাষায় বা আলাদা আকারে Bengali পেতে চাইলে অনুগ্রহ করে আমাদের সাথে যোগাযোগ করুন।

Urdu اگر آپ یہ معلومات دیگر زبان یا مختلف فارمیٹ میں چاہتے ہیں تو برائے مہربانی ہم سے رابطہ کریں۔

Chinese 若要以其他語言或格式提供這些資訊，請與我們聯繫

Polish Aby uzyskać informacje w innym języku lub w innym formacie, skontaktuj się z nami.

Portuguese Queira contactar-nos se pretender as informações noutro idioma ou num formato diferente.

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Children & Families

Physiotherapy

Low bone mineral density (LBMD)

For children with cerebral palsy or other long term neuromuscular conditions

Why have I been given this leaflet?

You've been given this leaflet because your child has been identified as being at risk of a condition called Low Bone Mineral Density.

Low Bone Mineral Density is the medical term used when bones are described as thin or fragile.

When children grow and start to move around, their muscles work hard and this helps to strengthen their bones. Children who cannot walk or have difficulties moving their arms and legs, have more fragile bones. When bones become fragile, they are prone to small breaks (fractures).

Some children have extra difficulties that may also affect their bones. This includes if your child is underweight, has feeding difficulties, or they take medications such as anti-epileptic drugs or long-term steroids.

Calcium & Vitamin D

Calcium and Vitamin D are essential for healthy bones. We will discuss your child's diet with you.

Calcium

Good Sources of Calcium include:

- Milk, cheese, yogurts
- Soya & nut alternatives to dairy products (only if fortified)
- Green leafy vegetables e.g. broccoli
- Fish that we eat the bones of e.g. sardines
- Fortified Cereals

Vitamin D

We can only obtain about 10% of Vitamin D from our diet, so our bodies need to make it from sunlight on our skin. In the UK, we can make good amounts of it from March to September, especially from 11am to 3pm when the sun is high. Children with dark skin need more time in the sunshine. Your child is more at risk of low Vitamin D if they cover their skin or spend limited time outdoors.

Other sources of Vitamin D include:

- Oily fish e.g. salmon, sardines
- Egg yolk
- Fortified foods e.g. cereals, margarine spreads

Children with limited movement will require Vitamin D supplements through childhood usually 400iu or 10mcg a day. Some may need a higher dose. We will advise you if this is the case. In only very rare circumstances, Vitamin D would not be advised.

Vitamin D is widely available at supermarkets and pharmacies, usually as part of a multivitamin drop, syrup or chewy tablet. Healthy Start Vitamins are available for eligible families from your Health Visitor or GP.

If your child takes a special formula in a feeding tube, it is likely to contain enough Vitamin D. This will be checked by your dietician.

Why is it important to know about my child's bone health?

When children have fragile bones, small breaks (fractures) can occur more easily. It is important to be aware of this in everyday moving, handling and transferring. Your child may be at higher risk of a fracture, if your child has a seizure or a minor fall. If your child appears to be in pain or is behaving differently after such events, it is important to seek a medical advice.

What will happen now?

Your health professionals (nurse, dietician, physio or doctor) will check if your child is at particular risk of fragile bones. They will look at your child's medical history, diet, and growth.

Your doctor may recommend your child has a blood test. Sometimes, calcium supplements or a higher dose of Vitamin D may be advised.

After this, your child might need another blood test to make sure that their levels have improved. If they are better, your child is likely to need to continue with their usual multivitamin. Exercise is important for healthy bones. Your therapists will advise on how to move and handle your child safely. They will advise on using any equipment necessary for this. Your therapists will also guide school staff in doing this and train them when necessary.