

Physical Education (PE) and exercise for children and young people with Osteogenesis Imperfecta (OI): information for families

Participation in sports and exercise is recommended for children and young people with OI to promote general fitness, muscle strengthening and bones becoming stronger. Playing sports and exercising can be daunting due to the risk of fracture; however, there are many activities that children and young people with OI can participate in safely. This information sheet from Great Ormond Street Hospital (GOSH) gives some suggestions.

We always advise that the school, parents and young person meet at the beginning of the school term to discuss the PE curriculum. Together you can determine which activities are appropriate and which may need to be modified. Please seek advice from your physiotherapy and specialist medical teams if needed.

Higher risk activities to avoid

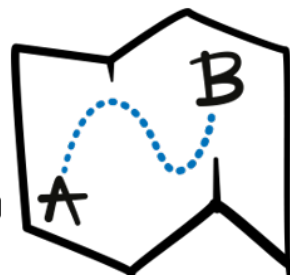
We do not routinely recommend the following for children and young people with OI:

- Contact sports which involve tackles and unpredictable collisions or falls. For example, rugby, basketball, judo, football
- Trampolining
- Certain gymnastic moves such as forward rolls, backward rolls, handstands and cartwheels
- Jumping down from heights, for example, off gym apparatus and climbing frames
- Horse-riding – this causes repetitive impact though the spine and should be

carried out with caution – please discuss with your medical team before taking part

Recommendations, ideas and alternatives

- Swimming is a non-contact activity and an excellent way to improve fitness and muscle strength.
- Dance is a safe activity to participate in, but repetitive high impact and breakdancing moves should be avoided. Dancing with a partner can be unpredictable; tugging and pulling should be minimised. Holding onto a rope rather than handholding will enable children with OI to let go if their partner is pulling too firmly on their arms.
- Racket sports such as tennis, badminton and table tennis are recommended – some children/young people may need a lighter racket or use a softer ball and should be encouraged to hit the ball holding the racket with two hands.



- Children/young people should be allowed to participate in the training skills of contact sports. For example, dribbling or bouncing the ball, shooting practice, throwing and catching. Children may prefer using a lighter or softer, spongier ball.
- Gym sessions should be supervised – children/young people may need lightweight apparatus and be shown how to climb on/off equipment safely. Some activities can be carried out at floor level, for example, walking along a line on the floor instead of walking along beams/benches.
- Wearing a bright or different coloured t-shirt/top may make children/young people more visible and help avoid collisions.
- Children/young people with OI often have hypermobile (very flexible) joints; this means they may be more prone to sprains and may have weakness around their joints – wearing supportive shoes and

trainers rather than plimsolls are recommended when exercising.

- Many sports and games can be adapted for wheelchair users – please contact your physiotherapist or OT for details.

Final words

Children/young people with OI can get more tired and experience more aches and pains compared to their peers – having rest breaks during activities and not over-doing things will help to manage this.

These are just some ideas on how to promote participation in PE and sports in children and young people with OI. However everyone is different and strategies can be put in place to facilitate participating in specific activities or sports.

Further information and support

If you are unsure of what activities a child/young person with OI should join in with, or wish to discuss a specific activity, please contact the OI Physiotherapy Team via our Administration Coordinator on 020 7405 9200 ext 5293. If you have a general clinical question about OI, please contact our Clinical Nurse Specialist (CNS) for OI on 020 7405 9200 ext 5824.

The Brittle Bone Society offers support and advice to parents of children with all types of OI. Telephone them on 01382 204 446 or visit their website at www.brittlebone.org

