Including children who have Osteogenesis Imperfecta in mainstream PE lessons

Basic principles to follow when including a pupil with Osteogenesis Imperfecta (OI) in a mainstream physical education (PE) lesson

- Pupils with OI should be encouraged to participate in PE lessons and to perform activities as independently and safely as possible.
- Specific advice/guidelines should be given to all staff involved in the teaching of PE and the delivery of extra-curricular sessions.
- One to one support/supervision should be considered and advice sought regarding this as required.
- Pupils should always be included in their age-appropriate classes/groups.
- Pupils should be given time and space to attempt and complete all suitable PE activities.
- Participation in most non-body contact sport is encouraged, particularly swimming.
- Please seek specific advice from the pupil's Paediatric Physiotherapist for their inclusion in PE lessons.

Pupils should be encouraged to participate fully in P.E lessons and to perform activities as independently and safely as possible.

Key pieces of advice

- Lightweight PE equipment can be used by pupils such as foam balls and beanbags.
- Pupils with OI may need to take time during a PE session to rest if they are tired or experience aches/pains.
- If appropriate, wheelchair users should be encouraged to get out of their wheelchair as much as possible. Muscles that cross the hip joint can become short and stiff if pupils sit for long periods of time. Ensure there is an appropriate space available for floor-based activities/ exercises.
- Be aware of the danger of pupils tripping over PE equipment scattered on the floor.
- Skills of all sports should be learnt, and pupils can help with refereeing or coaching during contact activities if they are unable to take part.

- Pupils with milder types of OI can take part in running activities, but may find it difficult to keep up with their peers when running longer distances. Thus, warmups that involve running within a confined area, e.g. a sports court/gym, is preferable to running around an open area.
- If a pupil is unable to perform an action, encourage them to come up with an alternative.
- Be aware of the possible danger of collisions in team games. It may be preferable to make multiple smaller group sizes and locate the pupil with OI into an area which has a limited number of pupils allowed to move in it. This may help minimise the risk of them colliding with other pupils.
- Swimming and water therapy are ideal activities for pupils with OI, as water allows independent movement with little risk of fracture/ injury. School staff will need to risk assess pool and changing areas and ensure pupils can enter/exit the pool safely.
- Pain in children with OI should be taken seriously and teachers need to report concerns about pain to the parent/carer.
- Some students with OI may need modified equipment or resources that assist with fatigue and support them to participate in physical activities. For example, some pupils may need to wear specialised splints or footwear to provide joint stability. They should wear any such equipment while doing PE.
- A pupil who is recovering from an injury may benefit from access to a gym space to work on an individualised exercise programme.

Due to the risk of fractures, pupils with OI

- Should be discouraged to jump off apparatus. They should alternatively be instructed to climb down safely onto a mat below.
- Should be discouraged to take part in 'high impact' repetitive activities in standing or sitting, such as trampolining and horse riding.
- Should avoid contact sports such as rugby and judo.
- Should avoid tackling or taking part in rough play.
- Should avoid activities that could lead to a fall, such as ice skating, skiing, roller blading.

Support and Advice

A Paediatric Physiotherapist can assist schools in maximising participation in physical activity, while ensuring the child with OI remains as safe as possible.

Advice can be sought from the pupil's Physiotherapist on how to incorporate personalised stretches or exercises into the lesson, which the whole class could do as well.

A visit to the school from a member of the OI Team can be arranged if necessary to provide additional information or support to staff or pupils.

First Aid

Fortunately fractures at school are not common but can and do happen. All suspected or actual fractures should be examined and treated by the child's doctor/hospital or an orthopaedic specialist which the child's parents/carers can organise.

If a fracture is suspected at school, usual first aid procedures should be applied and the parent/carer contacted. The ambulance should be called for major injuries and in an emergency. (Please refer to The Brittle Bone Society fracture management factsheet for further information).

An individual health care plan should be developed that includes agreed procedures for responding to a suspected fracture or more serious injury. The plan should be developed in consultation with the family and medical professionals involved in the pupil's care.

Key points for including pupils with OI in P.E Lessons

- Pupils with OI have an increased likelihood of fracturing their bones, often with relatively low trauma.
- Contact sports and repetitive high impact activities should be avoided.
- It is important that pupils with OI are encouraged to exercise as much as possible to promote muscle/bone strength and well-being.
- Pupils with OI should not 'sit out' of lessons. PE activities can and should be modified to allow participation. Providing alternative safer exercise activities may be required.
- It is recommended to include pupils in discussions around PE participation.
- Discussing the PE curriculum and new activities with parents is advisable.
- Generalised pain and fatigue are common, particularly as pupils get older. These need to be identified and managed with the help of health professionals.
- Risk management and implementation of an individual health care plan for pupils with OI is essential.

Notes

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Compiled by the Brittle Bone Society in collaboration with BBS Medical Advisory Board and POINT (Paediatric Osteogenesis Imperfecta National Team). The information in this leaflet is correct as at 31st July 2021 but we cannot guarantee that it will be accurate and current at any given time. This leaflet is not intended in any way to replace the advice of your doctor or other medical professional. Leaflets are available online at www.brittlebone.org. This information is available in accessible formats on request.

The Brittle Bone Society (BBS) is a registered charity in Scotland (SCO50854) and company limited by guarantee (SC677346), supporting the OI community throughout the United Kingdom and in Ireland.