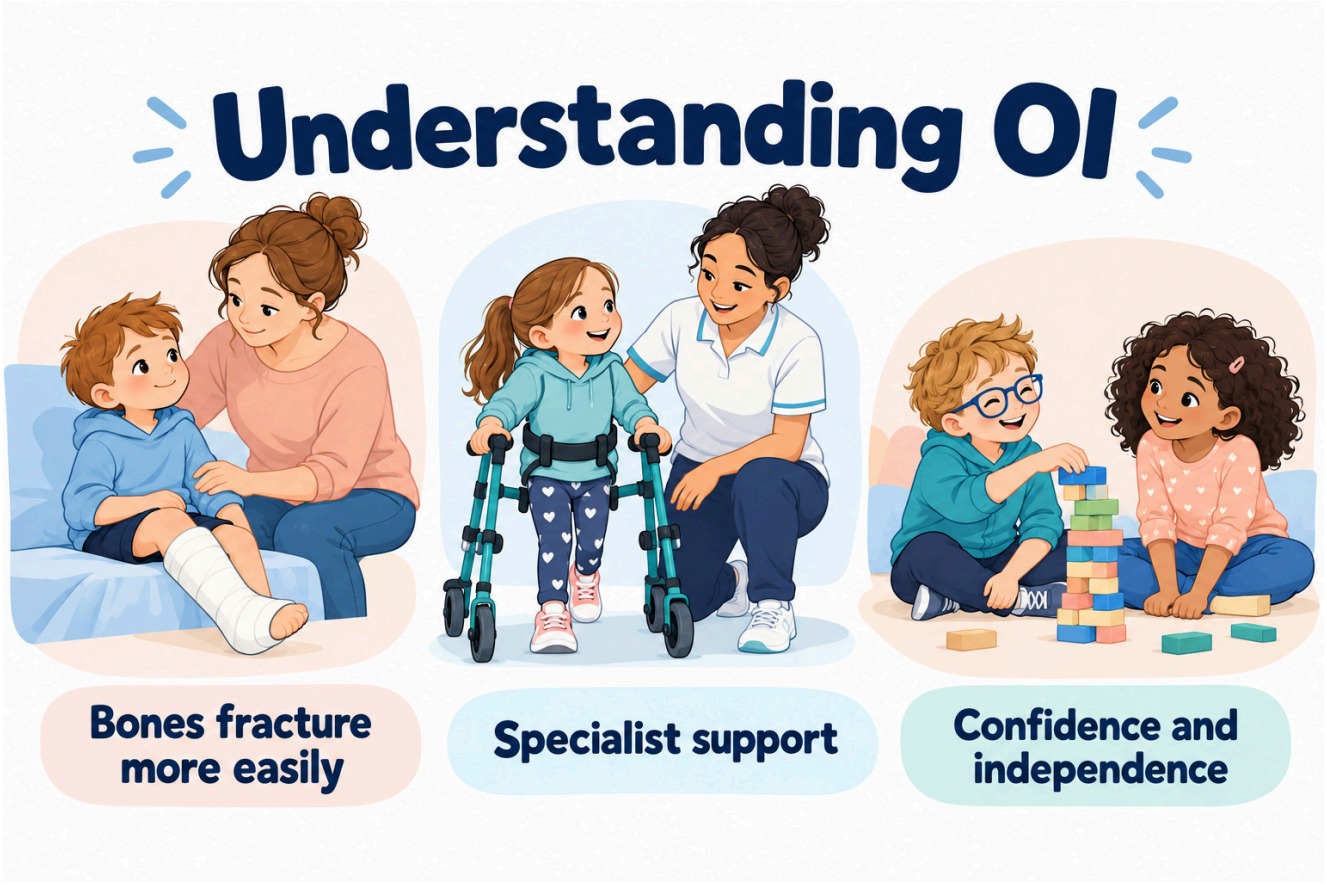
Osteogenesis Imperfecta

Information for children, parents and carers

Osteogenesis Imperfecta

A guide to symptoms, treatment and recovery



Understanding the condition

Osteogenesis imperfecta (OI) is a genetic condition affecting collagen, a protein that helps give bones strength. Bones can fracture more easily. The effects range from mild to severe.

Supporting your child

With the right support, children can develop confidence and independence. Activity and handling advice should be tailored to the child's OI type, strength, mobility and fracture history.

Symptoms and assessment

Understanding the cause and when to seek help

Possible signs

Frequent fractures after minor injury, muscle weakness, loose joints, shorter height, or blue or grey eye whites may occur. More severe forms can affect bone shape; hearing problems may develop later. Not every child has every feature.

How is it diagnosed?

Assessment includes examination, fracture history and X-rays. Genetic testing and bone density scans may be used. Care commonly involves a paediatric bone specialist and physiotherapist, sometimes with a geneticist.

How physiotherapy helps

Individual strength work, safe activity advice, balance and mobility practice can support independence. Water-based therapy and guidance after fractures may help when appropriate.

Activity needs an individual plan

Swimming, walking, suitable cycling and low-impact play may be options for some children. The team should advise what is safe for your child and how to reduce falls or injury.

When to seek urgent advice

Seek urgent care for a suspected fracture, sudden severe pain, difficulty moving a limb, inability to bear weight after a fall, unusual swelling or deformity, or breathing difficulty.

Key message

With the right support, children can develop confidence and independence. Activity and handling advice should be tailored to the child's OI type, strength, mobility and fracture history.

Treatment and daily care

Activity guided by your child's healthcare team

Before starting activity

Use an individual programme from the bone specialist and physiotherapist. This page shows activity principles, not a fixed exercise routine for every child with OI.



Activity guidance

Plan: choose activities with the specialist team.
Water: hydrotherapy or swimming may be suitable if advised.
Mobility: practise safe walking and use prescribed aids.
Environment: reduce slips and falls while supporting independence.

Important precautions

Avoid high-risk activity unless the team specifically advises otherwise: trampolines, contact sports, high-impact jumping, competitive gymnastics and activities with a high fall risk.

Treatment and next steps

Caring for your child and finding support

Specialist treatments

Hospital specialists may prescribe bisphosphonates to strengthen bones. Orthotics or splints may support loose joints or alignment. Some children need surgery to straighten or support bones, such as internal rods.

Activity and recovery

Physiotherapy builds strength, mobility and confidence. After a fracture, follow the team's instructions for aids, movement and return to activity. Suitable activity varies with the child's condition and recovery stage.

Home and school support

Keep floors free from slip hazards, encourage safe independence and support a balanced diet including calcium and vitamin D. Coordinate activity and support with the school and specialist team.

Questions or urgent concerns?

Seek urgent advice for suspected fracture, severe pain, reduced limb movement, inability to bear weight after a fall, swelling, deformity or breathing difficulty. The Brittle Bone Society and your specialist team provide support.

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