

Fast Facts

Osteogenesis Imperfecta (Brittle Bone Disease)

- Means “imperfectly formed bone”
- Rare disease
- A genetic defect (either inherited or a spontaneous mutation of a particular gene)
- This gene tells the body how much of a specific protein, type I collagen, to make
- When it doesn’t do this, the body doesn’t produce enough, or any, of type I collagen
 - Type I collagen is a major element in the connective tissue of bones
- Causes bones to be weak, which means they break easily, often without any traumatic injury
 - The bones do heal, but at a normal rate
- Type I collagen also helps to form ligaments, teeth and sclera (white tissue of the eyeball)
 - Eight types, but only four main types

<i>Symptoms</i>	<i>Treatment</i>	<i>Prevention</i>
Depend on the type and severity -Weak muscles -Malformed bones -Loose joints -Brittle teeth -Bowed legs -Curved spine -Short stature -Hearing loss -Blue/purple/gray sclera -Triangular face -Problems breathing	No cure Non-surgical: -Medications (bisphosphonates) -Immobilizing broken areas -Exercise (strengthen the muscles to maintain mobility) Surgical: -Needed if has repeated breaks of the same bone, the breaks don’t heal properly or have a deformity -Placing rods (fixed or telescoping) in the arms, legs and/or back -Spinal fusion (severe scoliosis)	No to way to prevent disease, but try to prevent breaks -Exercise (especially weight-bearing) -Eat a healthy, balanced diet -Take a calcium supplement (if your doctor recommends it) -Avoid things that will decrease bone density (smoking, drinking or taking steroids)

Tips for Parents:

Two key things to remember:

- 1) It’s okay to touch or hold your child, just be careful
 - 2) No matter how careful you are, your child will break bones, so don’t feel guilty
- Never lift your child by holding them under the armpits or lifting their legs by the ankles to change their diapers
 - Don’t pull on their arms or legs while dressing them (gently move each one of their limbs)
 - When picking them up, spread your fingers apart and place one hand between their legs and under their bottom and put the other hand behind their shoulders, neck and head
 - Choose a car seat that reclines and will allow you to easily place your child in and take them out (place extra padding beneath them and between them and the harness)
 - Stroller should provide them with adequate padding and be able to accommodate casts
 - Due to the increased awareness surrounding child abuse, it’s a good idea to have a letter from your child’s doctor explaining what OI is and a copy of their medical records readily available

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