

Anesthesia Information for People who have Osteogenesis Imperfecta

Some anesthesia risks are associated with patients with OI that distinguish them from the general population. Anesthesia personnel need to be aware of the susceptibility of fragile bone to fracture from movement, impact or stress. Alternative procedures for intubation, such as fiber optics inserted nasally, may be necessary when treating some patients. Dosage may also be affected by the patient's smaller body size.

Chest and rib deformities and scoliosis may compromise breathing. Other risks include fragile dentition, joint stiffness or heart valve disease.

The small stature of a person with moderate to severe OI often determines the choice of equipment. The endotracheal tube size used should be determined by the size of the head instead of the size of the body.

Patients with OI can exhibit increased body temperature during and after surgery. The reason for this is unclear but may be related to an increased metabolic rate. The increased temperature is most often **not** associated with malignant hyperthermia. In fact some doctors refer to this rise in temperature as pseudo-malignant hyperthermia because it occurs without the enzymatic or system changes that are considered signs of true malignant hyperthermia. Precautions such as avoiding the use of warming blankets or heavy drapes are often effective and sufficient. Occasionally ice packs or other cooling measures may be needed. Some anesthetic agents such as atropine should be avoided if possible because they may exacerbate increased body temperature.

Additional information to be brought to the attention of the anesthesiologist includes:

- A list of all nutritional supplements or herbal medications; some can affect heart rate or blood pressure during surgery. It may be necessary to stop these supplements two to three weeks prior to surgery.
- Any history of post-anesthesia vomiting.

In general, anesthesia is safe and well tolerated in children and adults with OI.