Guided growth surgery (in which a growth plate is used) is performed under anesthesia and generally takes about an hour.

Background

The growth plates (physes) are the sites in the bone where growth occurs. They are located at both ends of a long bone like the femur. Unfortunately, some bones do not all grow straight, and your child may have a condition where the bone bends inwards (varus) or outwards (valgus) and needs to be straightened to prevent the development of long-term arthritis.

How is it fixed?

One of the simplest methods to straighten out a bone involves placing metal plates (8 plates) across one side of the growth plate. This causes the bone to slow down its growth on that side, but allows it to continue normally on the other. This differential rate of growth eventually allows the bone to straighten up.

When the deformity is corrected, the plates are removed to allow the bone to continue growing normally. It is possible for a deformity to recur and it is therefore imperative that a child be observed until their growth plates have closed and they have stopped growing.
During the procedure, Dr Maine makes a small incision, through which a metal plate is secured across the growth plate with two small screws. For knock-knees, the device is placed on the inner (medial) side of the bone. For bow-legs, the plate is placed on the outer (lateral) side of the bone. Since the bones are never cut during the procedure, there is no compromise of the bone strength.

**Guided Growth Plate or “8 plate”**

![Guided growth plate](image)

Immobilisation is not required after surgery using a guided growth device and immediate weight bearing is encouraged; although the procedure can be a bit painful so it is important to give your child good pain relief. The majority of children who undergo guided growth surgery should be able to return to many of their normal activities within 2 to 3 weeks.

It is absolutely essential that regular appointments are made with Dr Maine to monitor the correction and to ensure the plates are removed once the desired amount of correction has been achieved. If the plates are left in for too long, it is possible to create a deformity opposite to the original, or even damage the growth plate so it is no longer capable of growth.