



NATIONWIDE CHILDREN'S
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Helping Hand™

Health Education for Patients and Families

Guided Growth Surgery

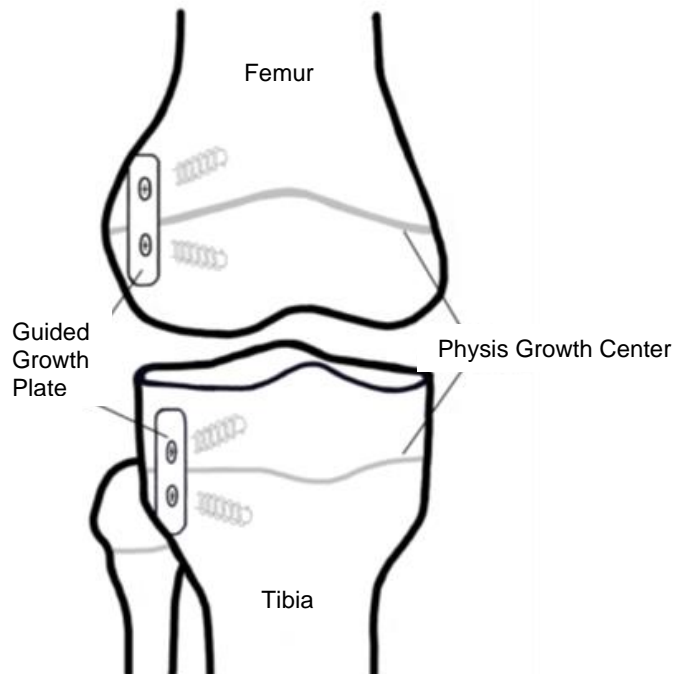
Guided growth, or hemi-epiphysiodesis (HEH me epi fissi oh DE sis), is a procedure that can be used to gradually correct angular deformities, such as “bowed legs” and “knock knees,” in children’s bones. Guided growth slowly straightens the bone by tethering (guiding) the growth plate on one side of the bone. As your child grows, the tethered side grows more slowly than the non-tethered side. This allows the bone to gradually straighten. Your child must still be growing for this surgery to work. Guided growth plate insertion is considered a minimally invasive surgery.

Surgery

Guided growth surgery is generally an outpatient procedure. This means your child can go home the same day.

On the day of surgery, you will meet a Physical Therapist (PT). They will teach your child how to walk with assistive devices. They will decide whether a walker or crutches better suits your child’s needs. A wheelchair is usually not necessary. Your child will have general anesthesia, so they will not be awake or feel pain during the surgery.

The guided growth plate is small, about the size of a paper clip. It is attached to the side of the affected bone with two screws – one screw on each side of the growth plate. The plate gradually helps to straighten the bone as your child grows. Because there is no need to cut the bone, there is no need for a cast or brace after the procedure.



After surgery

Your child will come out of surgery with a small bandage covering the incision. They will be allowed to walk as soon as possible after surgery. They can stop using the crutches or walker as soon as they are comfortable walking without help.

Pain control will be very important following surgery. For the first week, you should alternate Tylenol® and ibuprofen as needed. If there is stronger discomfort, we may prescribe a small amount of a stronger pain medicine. Your child should use pillows to raise the leg that had surgery. This will help to decrease any swelling. While the leg is raised, place an ice pack over the incision to help minimize discomfort. Some children like to bring pillows or blankets to help with comfort and positioning in the car ride home after surgery.

After 48 hours, your child can bathe or shower, as long as the clear waterproof dressing is still in place. You should leave this dressing on until your follow-up appointment.

Following surgery, your child does not have any limits on range of motion. This means they can (and should be encouraged to) move, bend, and walk. Moving may be uncomfortable for the first few weeks, especially in patients with femoral plates, but it will get better with time. The sooner your child begins bending their knee and walking, the faster the discomfort will stop.

It is important to remember that your child will not wake up from surgery with a straight bone. Guided growth takes about 12 months to straighten the bone, depending on how fast the child is growing and how much of a curve exists before straightening.

What to look for at home

If you notice any of the following, please call the Orthopedic Clinic:

- Redness or swelling at the incision site
- Fever of 101 degrees F or higher
- Increased drainage or bleeding at the site
- Increased pain
- If you have any questions.

Call the Orthopedic Clinic on Monday through Friday at 614-722-5175 from 8:00 AM to 4:30 PM. After business hours or on weekends and holidays, please call the hospital operator at 614-722-2000 and ask to have the Orthopedist on call paged.

Follow-up

Your child's first clinic visit will be 7 to 14 days after surgery, when we will remove the surgical dressings. After the dressings are removed, you can wash the incisions daily with soap and water. You do not need to cover them.

If your child had a guided growth plate inserted on their femur, the first visit will include a physical therapy session. This will help get your child moving and back to their normal activities sooner. Guided growth plates placed in locations other than the femur generally do not need physical therapy.

After the first clinic visit, we will see your child again in 4 to 6 months. At each clinic visit, we will take an x-ray of the legs to monitor the correction. You may notice the leg slowly getting straighter as your child grows. We will continue to monitor your child until the deformity is corrected and the plate is ready to be removed.

It is very important that you do not miss the scheduled follow-up appointments. The guided growth plate could over-correct your child's bone if the straightening is not closely monitored with x-rays. In most cases, once the bone has fully straightened, the plate is removed as an outpatient procedure. Your child will be able to walk right away following this surgery. Discomfort following plate removal is usually very little.