

# A GUIDE TO SLIPPED CAPITAL FEMORAL EPIPHYSIS (SCFE)

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## Why is my child limping?

The causes of limping in an adolescent are numerous. Some possible causes include trauma, infection in the joint or bone, reactive synovitis, developmental dysplasia of the hip, *slipped capital femoral epiphysis (SCFE)*, leg length discrepancy, neurologic disorder, or tumor. Your doctor will consider how long your child has been limping, his or her age, whether there is any focal pain or stiffness to direct the investigation.

SCFE is the most common reason for a limp of any kind in an adolescent without some other obvious explanation (trauma or infection).

## What is a SCFE?

SCFE is a backward slippage of the growth plate of the thighbone near the hip joint. The slippage leads to deformity of the ball and socket joint and decreases motion of the hip. This leads to a limp.

## Who is generally affected?

SCFE affects approximately 1 – 3 per 1,000 people. Boys are affected twice as often as girls. The slippage occurs between 12 – 15 years in boys and 10 – 13 years in girls. Both hips will slip in roughly 25% of affected children. It is more common in Pacific Island ethnic groups and individuals of African-American descent.

## What is the cause?

The exact cause is unknown. For children under 10 years of age, thyroid problems may weaken the growth plate. In older children, increased stress due to obesity is thought to lead to slippage. Some investigators have shown that changes in the growth plate which occur in adolescence may be responsible for slippage in the larger child.

## What are some of the signs of SCFE?

Your child may develop a painless limp over several weeks or months. Sometimes the slip develops suddenly and your child cannot walk or stand due to pain. Children with a slipped epiphysis will often complain of knee pain instead of hip pain. The hip cannot turn inward or bend forward very far. Children who have had a slipped epiphysis for some time may sway from side to side when they walk. The sway is used to compensate for muscle weakness around the hip joint.

## What can be done to prevent further slippage?

As soon as the slippage is recognized or suspected, your child should stop walking. Your doctor may admit your child to the hospital. Surgery is needed as soon as possible to fix the slip. The standard treatment is to place a single screw across the growth plate through a small incision on the thigh. After surgery, your child will be allowed out of bed on crutches.

With a very severe slip, the surgeon may recommend corrective surgery. The goal is to cut the bone and fix it with a plate and screws to correct the deformity caused by the slip. Your doctor will direct you to an orthopedic surgeon who specializes in children to discuss which option is best for your child.

With a slip that develops suddenly, the necessity of care is much more urgent. The blood supply to the ball of the hip is tenuous, and rapid intervention is generally performed.

### **Why does the hip need surgery?**

The goal of treatment is to prevent increasing deformity of the hip since greater deformity (percentage slip) is associated with a higher chance of arthritis in early adulthood.

Therefore, the goal of surgery is to stop slipping while the growth plate is still open. Once the growth plate has closed, no further slipping can occur. Placing a screw across the growth plate will cause it to close faster than if the growth plate was left alone.

### **What activities can my child do after surgery?**

You should receive detailed instructions from your surgeon. Your child will be prohibited from any activity that puts stress on the hip until the growth plate has closed. Therefore, your child should walk with crutches until instructed to stop by your surgeon. Running, jumping, skateboarding, skating, bike riding, and any contact sports are strictly prohibited. Encourage your child to get aerobic exercise by swimming in a pool or riding a stationary bicycle. A therapist may supervise range of motion exercises.

### **If the other hip does not hurt and x-rays are normal, why fix it?**

Approximately 25 – 50% of children will have a slip on the other hip. Half of these children will have both hips affected on the first visit. The other half develops the slip on the other hip after several months. Younger children with small stature or children with thyroid disease are prone to slipping on both hips. Your surgeon will discuss the option of placing a screw in the “normal” hip to prevent slipping.

If you decide to wait for surgery until the “normal” hip develops pain, you may increase your chance of arthritis in that hip since any deformity will increase your risk. Your child should report any pain in the hip or knee immediately so that treatment can begin before any significant deformity develops.

**With early recognition and timely treatment, the long-term prognosis can be excellent for the minor slipped capital femoral epiphysis.**