Seymour Fractures

Seymour (SEE moor) fractures are usually the result of a crush injury. This often happens during sports, such as when a ball hits the end of the finger. The joint nearest the end of the finger is hurt as well as the nail.

The fracture (break) occurs through the growth plate, the weakest part of the bone (Picture 1). The bone shifts (moves out of place). When the bone displaces, tissue becomes trapped in the growth plate. This is considered an open fracture. This kind of fracture often occurs with a laceration (the skin also breaks open).

Signs and Symptoms

A Seymour fracture has most or all of these signs:
- pain
- tenderness
- deformity
- blood under the nail
- swelling
- bruising
- open wound

Diagnosis

The medical provider will ask how the injury occurred and do a complete exam. X-rays of the finger will be taken (Picture 1). X-rays will be repeated over time to make sure the break is healing correctly.

Treatment

Treatment may depend on the severity of the break and time until treatment. If seen soon after the injury, the emergency department will numb the area then may:
- remove the nail
- clean the wound
- bandage the wound
- reduce (set) the fracture
- suture (stitch) the laceration
- put a splint on the finger

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Treatment, continued

A Seymour fracture may be treated using a splint (without any manipulation) and antibiotics. Occasionally an out-patient surgery may be needed to repair the laceration. A pin may be used to hold the fracture pieces as they heal. Pins usually have to stay in for 3 to 4 weeks. All patients with Seymour fractures need antibiotics to prevent infection. Your child may need to wear a splint or cast for several weeks to ensure healing and proper position.

Prognosis

Often this type of fracture may have one or more of these problems:

- infection
- abnormal nail growth
- deformity of the end of the finger
- growth arrest (the bone stops growing)

It is very important that your child take antibiotics as prescribed. This will reduce the chance of infection to soft tissue or bone. These infections can last a long time. Your child must take all the antibiotics until they are finished.

Proper treatment is important to make sure your child can return to play and sports as soon as safely possible. Even with appropriate treatment, the finger could appear slightly abnormal for life due to the type of injury.

Your child will have a follow-up appointment with the orthopedic (bone) doctor. The doctor will let you know if your child will need further treatment.

What to Do At Home

It is very important to always follow instructions for care so the area can heal. Your child may need to wear a splint or soak the injury.

Until the doctor says it is ok, your child should:

- not take part in sports (including gym)
- limit lifting, pushing and pulling
- do only low energy activities (no running, playing rough, jumping).

Call your child’s doctor if there are any signs of infection:

- increase in pain
- redness
- drainage (fluid coming from the wound)
- fever above 101 degrees Fahrenheit (by mouth)
- fever along with other symptoms listed above