Salter-Harris Fracture Classification

The Salter-Harris Fracture Classification system is designed to classify physeal fractures based on their relationship to the growth plate. Correct classification is crucial because the type of fracture will determine both treatment and prognosis. SALTER is a mnemonic which stands for S- Straight Across, A - Above, L - Lower or beLow, T - Two or Through, ER - ERasure of growth place or cRush.

PLAY PICMONIC

SMACK
SMACK!
A common mnemonic used to remember the Salter-Harris Fracture classification system based on which portion of the physeal growth plate is involved. It includes S- Slipped, M- Metaphysis, A- Articular, C - Complete, K - Krushed.

Slipped Across Physis (Type 1)
Slipping Fracture Across Physis with 1
A fracture of the physeal hypertrophic zone, with no involvement of the growth zone. Any issues with growth and development from this kind of fracture are rare. The width of the physis will be widened slightly and the child will often present with pain at the site of the epiphyseal plate.

Metaphysis and Physis (Type 2)
Fracture through Metaphysis and Physis with 2
The most common type and is “Above” the growth plate involving the metaphysis and physis without involving the epiphysis. Minimal shortening of the limb is possible with Type 2 injuries and any future functional issues are rare.

Articular-Epiphyseal (Type 3)
Articular Fracture with 3
This involves a hypertrophic fracture of the physis which extends into the epiphysis. This kind of fracture compromises the growth plate and can lead to chronic disability, though deformities are still rare with Type 3’s. Surgery is often required to repair a Type 3 Salter-Harris fracture before it can cause growth and development issues.

Complete Metaphysis and Epiphysis (Type 4)
Complete Fracture through Metaphysis and Epiphysis with 4
A fracture of the epiphysis, metaphysis and physis which can result in chronic disability. If left untreated, it can also lead to premature focal fusion of the joint and thus joint deformity.

Krushed Physis (Type 5)
Krushed Physis with 5
This refers to a compression or crushing injury of the epiphyseal plate due to an axial load injury. It is associated with growth retardation of the affected limb and has a poor functional prognosis. Diagnosis is often difficult.