

Musculoskeletal imaging

EVALUATING FOR HIP EFFUSION

The ability to diagnose a hip effusion in a limping patient can help guide their workup. This is particularly valuable for children with possible septic arthritis; the presence of a hip effusion may indicate the need for arthrocentesis.

Technique

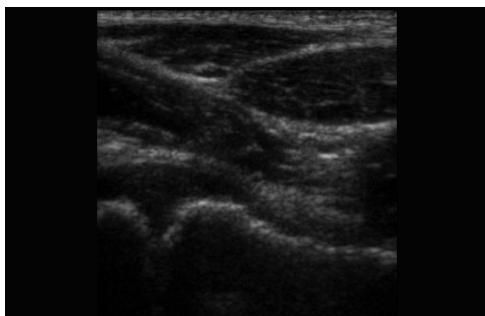
Use the high frequency linear transducer for pediatric or slender patients; others often require the low frequency curvilinear transducer.

Orient the transducer to be angled in line with the femoral neck. Keep the transducer perpendicular to the skin to avoid anisotropy, which can produce a false positive.

Compare both the affected and unaffected side.

Anatomy

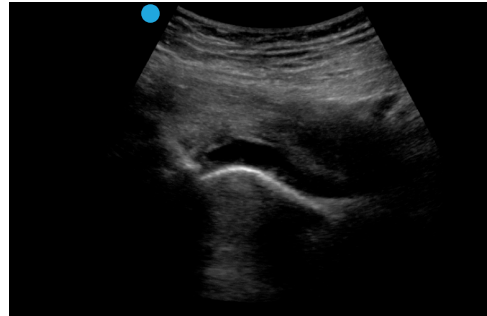
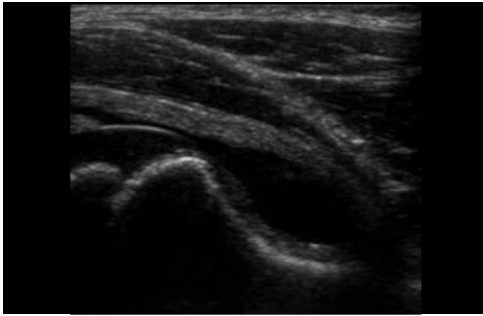
Important landmarks include recognition of the iliopsoas muscle and the femoral neck. In children, the growth plate has a hypoechoic appearance. Look for effusions in the joint capsule space.



Normal hip

Hip effusion

Examine the joint capsule space for fluid. This is most commonly anechoic, but complex fluid might contain hyperechoic material.



Measure all suspected effusions, as it is normal for joints to contain synovial fluid. The criteria for a hip effusion is one of two possibilities.

1. Effusion > 5 mm
2. More than 2 mm larger than the unaffected side

