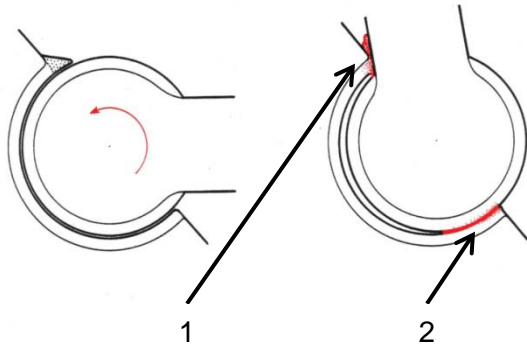
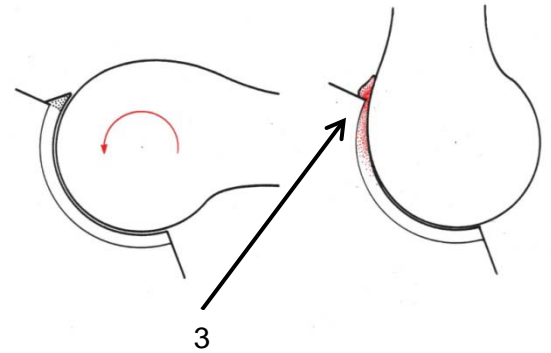


Illustration of different types of impingement

Femoro-acetabular impingement of the pincer type



Femoro-acetabular impingement of the cam type



Suggested mechanisms of pincer and cam impingement. In pincer impingement (left), increased acetabular depth with acetabular over-coverage limits range of motion and leads to repetitive frontal impact of the acetabulum and femur and subsequent antero-superior or anterior damage of the labrum (1). If the acetabular rim acts as an abutment for the femur, the resulting leverage of the femur against the acetabular rim can lead to shearing-damage of the cartilage in the opposite posterior-inferior area (contre-coupe) (2). In cam impingement (right), the femoral neck protuberance and the non-spherical part of the femoral head are jammed into the acetabulum, causing shear forces and damage to the peripheral cartilage (3). Adapted from Beck et al. [13] [12].