

TABLE E1 Tönnis Classification System

Grade 0	No signs of osteoarthritis
Grade 1	Increased sclerosis of the head and acetabulum, slight narrowing of the joint space, and slight lipping at the joint margins
Grade 2	Small cysts in the head or acetabulum, increased narrowing of the joint space, and moderate loss of sphericity of the head
Grade 3	Large cysts in the head or acetabulum, severe narrowing or obliteration of the joint space, and severe deformity of the head