

Figure 23-1. Anteroposterior radiograph demonstrating AVN of the humeral head with subchondral collapse.



Table 23-1

Staging System for Avascular Necrosis of the Humeral Head

STAGE 1 AVN:	Normal radiographs.
STAGE 2 AVN:	Architecture of humeral head preserved with sclerotic changes visible.
STAGE 3 AVN:	Subchondral collapse of humeral head with loss of sphericity.
STAGE 4 AVN:	Progressive collapse of the humeral head with degenerative arthrosis and joint space narrowing.
STAGE 5 AVN:	Degenerative arthrosis in both humeral head and glenoid with loss of joint space.

For early stage disease prior to subchondral collapse (stages 0, 1, and 2), joint preservation techniques remain paramount. Although a short trial (6-week increments) of simple nonoperative exercises and activity modification may be initiated, we consider these early stages as the shoulder “at risk,” and hence utilize aggressive nonoperative treatment in conjunction with arthroscopic modifications of the core decompression procedure as soon as possible.² Peer-reviewed literature has demonstrated successful clinical and radiographic evidence supporting the use of core decompression in retarding the progression of AVN in these early precollapse stages. We combine clinical history with MRI to confirm this diagnosis and proceed with management. Patients are counseled that although core decompression indeed reduces pain, the long-term results beyond 5 to 10 years remain unknown (Figure 23-2). We perform this procedure in the upright beach-chair position, under both arthroscopic and fluoroscopic control. A standard anterior cruciate ligament tibial targeting guide is utilized through a standard anterior glenohumeral arthroscopic portal in order to confirm appropriate placement under the softened and sometimes fibrillated area of cartilage (most commonly in the anterosuperolateral humeral head). Under fluoroscopic imaging, a guide pin is placed through a