

## **Imaging findings in asymptomatic individuals**

Sajid, et. al. BMJ Open Quality, 2021.

### **Neck:**

Up to 87% of asymptomatic individuals may have bulging discs,[107](#) with 58% of younger, asymptomatic athletes showing cervical disc degeneration.[108](#)

### **Shoulder:**

60% of asymptomatic older adults show subacromial bursitis on MRI and around half have rotator cuff tears,[109](#) [110](#) whilst up to 72% of middle-aged individuals have asymptomatic superior labral tears.[111](#)

In younger, asymptomatic athletes, 65% can have rotator cuff tears and 88% rotator cuff tendinosis.[112](#) 52% of pre-teen athletes demonstrate asymptomatic activity-related ‘abnormal’ shoulder MRIs.[113](#)

With the exception of large rotator cuff tears, systematic review suggests little-to-no correlation between shoulder imaging findings and shoulder symptoms.[28](#) [114](#)

### **Low back:**

At age 60, 88% of asymptomatic adults will have disc degeneration, 70% will show disc bulges, 50% will show facet degeneration and 23% spondylolisthesis.[115](#)

Lumbar stenosis is seen in up to 20% of those under the age of 40.[116](#)

Moderate or severe spinal stenosis is seen in up to 64% of those in their 50s and 93% in those in their 80s. The majority are

asymptomatic, as only 17.5% of those with severe central stenosis may have symptoms.[117](#)

In younger, asymptomatic adolescent sports players, up to 85% may show MRI changes including disc bulges, facet arthropathy as well as pars lesions.[118](#) Even 22% of asymptomatic children can show disc degeneration on MRI.[119](#)

### **Hip:**

Labral tears are seen in up to 69% of asymptomatic adults,[120](#) or even 89% of asymptomatic athletes[121](#) and labral cysts in 50% of dancers.[122](#)

Acetabular dysplasia is seen in around 15% of asymptomatic people, with bilaterality in up to 39.5% of cases.[123](#) [124](#)

Cartilage defects may be seen in 12% of asymptomatic individuals.[125](#)

### **Knee:**

The majority of people with meniscal tears have no recent symptoms.[126](#) Meniscal tears are seen in around a third of middle-aged asymptomatic individuals, where 97% of knees will show incidental ‘abnormalities’, including bucket-handle tears.[127](#)

Above the age of 40, MRI shows osteoarthritis features in up to 43% of asymptomatic individuals[128](#)

## **Ankle and Foot:**

Tibial stress fractures have been seen in 41% of asymptomatic runners.[129](#)

In ankle MRI of asymptomatic amateur marathon runners, up to 80% may show tendon changes, 48% ligament injuries and 27% achilles tendinopathy.[130](#) Up to 37% of people may have incidental 'abnormal' anterior talofibular ligaments.[131](#) [132](#)

Achilles tendon changes may be seen in up to 63% of asymptomatic individuals, and retrocalcaneal bursal changes in 68% of runners.[133](#)

Morton Neuroma's is present in 26%–33% of asymptomatic individuals.[134](#) [135](#)

Unfettered GP-MSK-MRI use has reached unacceptable indication creep and disutility. Considerable avoidable harm occurs through ubiquitous misinterpretation and salient low-value referral cascades for two-thirds of imaged patients, for almost no change in treatment. Any marginally earlier procedural intervention for a tiny fraction of patients is eclipsed by negative consequences for the vast majority. Only 1–2 patients need to be scanned for one to suffer mismanagement. Direct-access imaging is neither clinically, nor cost-effective and de-implementation could be considered in this setting. GP-MSK-MRI fuels unnecessary healthcare utilisation, generating nocebic patient beliefs and expectations, whilst appropriate care is delayed and a high burden of psychosocial barriers to recovery appear neglected.