

# Guidelines for MR Imaging of Sports Injuries

European Society of Skeletal Radiology Sports Sub-committee

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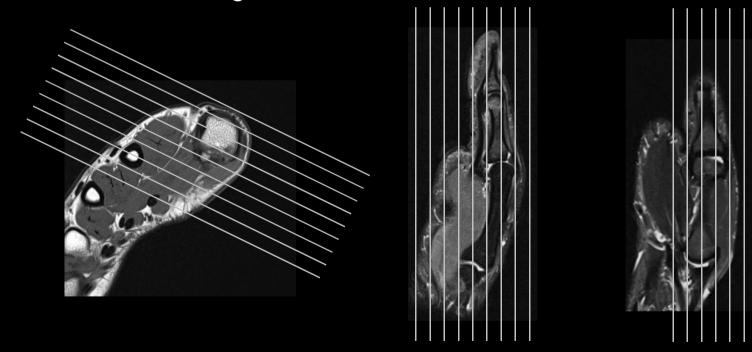
### Abbreviations and clarifications\*\*\*

- Ax = axial
- Cor = coronal
- Sag = sagittal
- FOV = field of view
- PD = proton density
- TE = time to echo in milliseconds
- FS = fat suppressed
- Int = intermediate
- Int FS: this is a fat suppressed sequence with a long TR and a TE between that of a traditional PD (e.g. TE= 10-20) and a traditional T2 (e.g. TE=80-100). The advantage of this sequence is that the TE is short enough to maintain sufficient signal for visualisation of the anatomy (like a PD) yet long enough to be more fluid sensitive (like a T2)
- For STIR sequence, TI (inversion time) should be 140-150 at 1.5T

#### Thumb



- Patient in prone position with elevated arm ('Superman position')
- Thumb fully extended and at center of scanner
- Use small surface or dedicated wrist/hand coil, use foam pads for fixation
- Acquire axials first, use them to plan other planes
- Tilt coronals and sagittals 90° to sesamoids at the level of the MCP joint



# Thumb

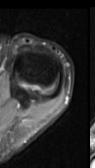


	FOV	Slice	TE	Matrix (min)
Ax PD FS	8x8 cm	3-3.5 mm	25-35	210x320
Ax T1	8x8 cm	3-3.5 mm	min.	260x320
Cor PD FS	10x12 cm	2 mm	25-35	220x384
Sag PD FS	10x12 cm	2 mm	35-45	240x384
Cor STIR	8x12 cm	2 mm	35-45	170x320

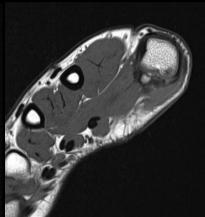
## Thumb



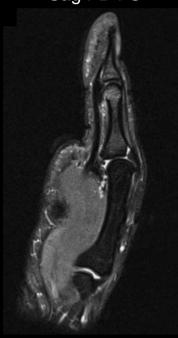
Ax PD FS



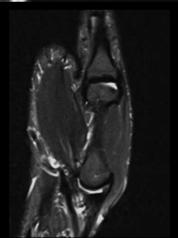
Ax T1



Sag PD FS



Cor PD FS



Cor STIR