Guidelines for MR Imaging of Sports Injuries

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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
Fingers

- Patient in prone position with elevated arm (‘Superman position’)
- Wrist at center of scanner; use small surface coil or dedicated wrist or hand coil
- Start with axials, use them to plan the other planes
- Sagittals over finger(s) of interest, adjust tilt of planes on coronals
## Fingers

<table>
<thead>
<tr>
<th></th>
<th>FOV</th>
<th>Slice</th>
<th>TE</th>
<th>Matrix (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ax PD FS</td>
<td>8x10cm</td>
<td>3-3.5 mm</td>
<td>25-35</td>
<td>210x320</td>
</tr>
<tr>
<td>Ax T1</td>
<td>7x10cm</td>
<td>3-3.5 mm</td>
<td>min.</td>
<td>260x320</td>
</tr>
<tr>
<td>Cor PD FS</td>
<td>10x12cm</td>
<td>2 mm</td>
<td>25-35</td>
<td>210x384</td>
</tr>
<tr>
<td>Sag PD FS</td>
<td>10x12cm</td>
<td>2 mm</td>
<td>35-45</td>
<td>210x384</td>
</tr>
<tr>
<td>Cor STIR</td>
<td>10x12cm</td>
<td>2-2.5 mm</td>
<td>35-45</td>
<td>180x320</td>
</tr>
</tbody>
</table>
Fingers

Ax PD FS  Ax T1  Sag PD FS

Cor PD FS  Cor STIR