Palpation: side-lying and supine

With the patient supine the practitioner contacts the patient's knee and flexes and then adducts the hip to allow their other hand to be placed under the pelvis to palpate the sacroiliac joint. With a cupped hand the tips of fingers should reach the sacroiliac joint.

The main bony landmark is the PSIS. A broad flat contact will give the best palpation. The middle finger is commonly used with the distal interphalangeal joint lying over the joint line. The breadth of contact is necessary to feel restrictions that are apparent immediately medial to the line of the Ilium but also restrictions that are apparent up to a centimetre medial to the line of the Ilium.

Using large movements of the leg will produce gross movements of the sacroiliac joint and will obscure the subtleties involved in locating specific lesions. Small movements of the leg in flexion/extension or abduction/adduction or gentle circumduction may be used in conjunction with direct sacroiliac palpation. Direct joint palpation is the objective.

Once the PSIS is located the S2 region is palpated at this level. S2/3 and S3 can be located by following the line of the ilium caudally for 5-8 cm. Initially the overhang of the Ilium amplifies the joint movement and makes palpation relatively distinct. The true end of the joint is very difficult to palpate as there is no over-hang and a lesion at S3 will feel like a pimple about 1cm beyond the apparent end of the joint or what is traditionally referred to as the lower pole.

Having palpated the lower half of the joint we return to the PSIS. There may be lesions just above the PSIS (Supra S2). As we travel superiorly there is generally no notable restriction of movement until the sacral base. However occasionally there are lesions mid way between the PSIS and the sacral base, denoted S1/2.

Half the lesions in the sacroiliac joints occur in the S1 complex. These lesions do not involve the relative movement of 2 bones but are instead the detection of increased tension in sacroiliac and iliolumbar ligaments transmitting the restriction in the upper part of the sacroiliac joint deep inside the pelvis. This is probably part of the reason that this important area has been missed until now.

S1 is a distinct point precisely at the sacral base. Lateral S1 is a distinct point at the iliolumbar ligament attachment. The iliolumbar ligament attachment is highly variable in location from person to person. There is often a slight angulation in the Ilium where it attaches but the feeling of restriction may not be precisely at the angulation but it will be close to it. In this sense lateral S1 may be 3-4 cm along the Ilium from the sacral base or it can be up to 10-12 cm from the sacral base.

Having palpated the sacroiliac joint, it is of course essential to palpate the facet joints of the lumbar spine as well. The last 3 lumbar joints usually suffice but pain syndromes extending higher into the spine may require further palpation in that direction.

The lumbo-sacral junction lies just above the sacral base and can be palpated in the same position and manner as the sacroiliac joint as described. The distance between the sacrum and the L/S will vary according to the size of the patient and the angle of the sacral base and degree of lordosis in the lumbar spine. A highly lordotic spine will decrease the apparent distance of the lumbar joints and the lumbosacral junction may lie deep and appear close to the sacral base.

While the patient is lying supine it is convenient and useful to directly palpate the facet joints of the lumbar spine bilaterally. This is achieved by placing the practitioner's hands under the lumbar spine with the middle finger on each facet starting at the lumbo-sacral junction. Alternating pressure from one side to the other induces rotation and direct comparative palpation. Make a note of any findings.

Sometimes tight fibrotic balls of muscle in the multifidus can give the palpatory impression of lumbar facet joint restriction underneath. Chan Gunn refers to this as supercontracture and dry needling is often appropriate in this case. When having difficulty in manipulating a lumbar facet joint it is advisable to check for facet joint restriction by palpating from an oblique angle coming from a more lateral starting point to eliminate these false positives.

It is possible to palpate the sacroiliac joints bilaterally in the supine position but it does not seem to work as well as with the lumbars.

It is advisable to palpate the sacroiliac joints and lumbar facet joints side-lying as well as supine. More information can be gathered this way and lesions missed in one position may be more apparent in the other. This should be done before and after HVT manipulation to determine lesion location and clearance. It is also possible to palpate the lesion while thrusting.

Side-lying palpation is best performed in the lumbar roll position (see video 12). Gentle rhythmic oscillations are induced with the non-palpating hand on the shoulder of the patient while the palpating hand moves up and down the sacroiliac joint and lumbar spine. Palpation follows the same procedure as supine. It is easiest to start with the most prominent bony landmark, the PSIS (S2) and work down to the inferior aspect of the joint S2/3 and S3, back up to S2 and then up to the S1 complex. The lumbar spine can then be palpated also.