

Lumbar Spine Instability 5

Abdominal Training

Curl Up – Beginner (Fig 7)

The basic starting position is supine with the hands under the lumbar spine, allowing the patient to detect any lumbar movement, which should be held in neutral throughout. One leg is bent to stabilise the pelvis (this should be the painful leg in sciatic patients).



Fig 7 Beginner Curl Up

Leave the elbows on the floor whilst lifting the head and shoulders a short distance off the floor. The focus of the rotation is in the mid thoracic spine with the neck and shoulders rising as a rigid block, whilst keeping the lumbar spine in the neutral position. This position initiates the same rectus abdominis contraction as a traditional sit up but with greatly reduced spinal compressive forces.

Curl Up – Intermediate (Fig 8)



This is as the Beginner but with holding the elbows off the floor. Again no lumbar motion should occur.

Curl Up – Advanced (Fig 9)



At this stage the patient should not need to keep the hands under the spine but will have enough control to do this unaided. The backs of the hands are placed on the forehead without any downwards pressure. The head and shoulders are then lifted as previously.

Common Faults

Two common faults are excessive neck flexion (Fig 10) or head extension/chin poke (Fig 11). Care must be taken to avoid these positions. If the patient finds holding the head in this position difficult, the tongue should be placed on the roof of the mouth behind the front teeth, which will help establish stabilizing neck muscle patterns.



Fig 10 – Excessive neck flexion



Fig 11 – ‘Chin poke’