Uncovertebral Joints (UVJ)

Assessment:

There is no evidence that we can determine if a restriction of motion is originating in the Z joint, UV joint or the interbody joint. If the UV joint is restricted, the rest of the segment may also be restricted, often making it difficult to differentiate which joint is the cause of that segmental restriction. The same is true when there is a Z joint restriction. By finessing the planes of mobility testing we may be able to determine the various components of the segmental restriction, regardless of which joint is causing that restriction. The results of this type of assessment may lead us to believe that one joint is more affected than the other, but more importantly may help us to be more effective in focusing our treatment techniques to regain the specific motion that is lost.

AROM:

When there is UV joint restriction, we often see a proportionally greater limitation of side flexion (SF) than rotation.

PPIVM:

Pure SF seems to focus motion along the UV joint complex. It is thought that a restriction of pure SF will be found in all 3 positions of neutral, flexion and extension. Although it is often suggested that for UV joint involvement there will be an equal restriction of SF in all 3 positions, if there is a strong anterior or posterior glide component to the restriction, the loss of SF may be more marked in either flexion or extension.

Other PPIVMs, including rotation and unilateral flexion or extension, will also be restricted but the SF component tends to be the predominant plane of motion restriction.

PAIVM:

Options:

- lateral glide with an inferior glide component
- straight A/P glide at a medial purchase point on the anterior aspect of the vertebra
- combined IMP/SAL along a plane that is either more A/P or vertical than the more oblique plane of the Z joints

Treatment Techniques:

Manipulation (for Level 5)

Side flexion osteokinematic technique

Eg - to regain left SF at the C3-4 U joint

Patient: supine, head resting on pillow

Therapist: stands at head of bed. Place both index fingers along the lamina of the C3 vertebra.

Localization: tighten above using an incongruent lock, side flexion to the left, rotation to the right.

Barrier: engage the motion barrier by left side flexing C3 on C4 while also translating C3 to the right on C4. An anterior or posterior vector component can be added depending on the plane of the restriction noted in assessment, and the best barrier obtained. At this point the caudal joints can be tightened with right lateral translation as needed.

Technique: the high velocity, low amplitude thrust is a 2 handed technique into side flexion with a bias toward the side of restriction as determined by assessment