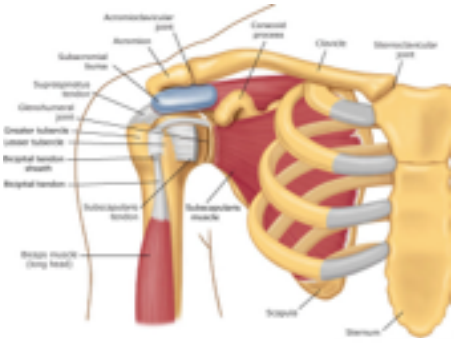
Shoulder taping - Support / Pain Relief

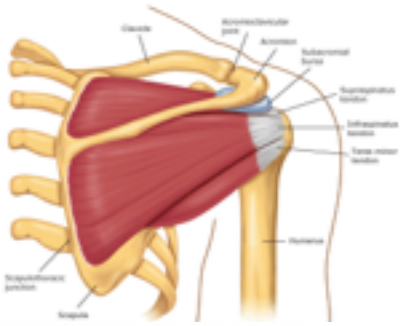
Indications - GHJ instability/apprehension/subluxation/dislocation
Labral damage
Impingement
Rotator cuff weakness
Hypermobility
ACJ pain/subluxation/dislocation

Equipment:

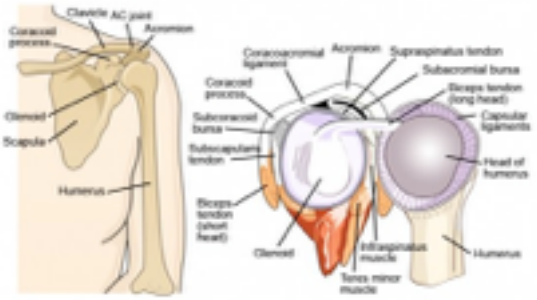
1) Adhesive spray
2) Bandage Scissors
3) Elastic Adhesive Bandage (EAB) - 5cm/7.5cm
4) P-tape 3.8cm
5) Hypafix - 10cm
6) Molefoam padding 5mm
7) Thermoplastic

Relevant Anatomy:









Joint position:
Think about position of the arm for the technique and for skill performance/function
What range is the athlete weak/painful in?
What do you want to achieve from the technique?

GHJ - hand on hip - scapula in neutral - depends on athletes needs
ACJ - 30-40° abduction - neutral rotation

Tip - hairy chest/armpit needs to be trimmed/shaved 24hrs pre-taping. Spray adhesive is more necessary for this area along with Hypafix. If being applied to a female athlete then modified anchor point will need to be considered.

Technique - GHJ Rotation Control (P-tape 3.8cm + EAB 5/7.5cm)

- Protective dressing over nipple area if taping going that low.
- Adhesive spray front + back. Hypafix 10cm width base layer
- Ensure patient is sitting in an upright posture with head up and scapula in neutral.
- Anchor (1) - mid-pec - over AC - mid-scap applying tension posteriorly (modifications to chest anchor will be required in female patients)
- Anchor (2) - around contracted bicep - incomplete ring
- Start with the lowest strips and work superiorly - interweaving anterior and posterior strips - overlap previous strip by 1/2 - 1/3. AC technique can be incorporated at the same time for added support.
- EAB Torque control is then added to complete the technique (see below). Check that the required restriction has been applied at this point prior to final anchors being applied.
- Hypafix is then used as final anchors.

Additions

- Molefoam padding or thermoplastic guards are applied on top of the completed taping. Hypafix then secures them in place






Variations

Impingement:
Strip to humeral head pulling posteriorly

Caution

- Do not tape over the upper fibres of trapezius
- Do not apply too much tension on the tape (especially the more vertical strips) as the arm will not be able to drop down into neutral (this may be desirable if the patient has a sulcus sign).
- Bicep must be contracted whenever tape wraps its circumference and should go around the largest diameter point (normally mid-belly). Incomplete wraps can be applied more proximally.

Technique - ACJ Compression (P-tape 3.8cm + EAB 5/7.5cm)

Positioning

- Ensure patient is sitting in an upright posture with head up and scapula in neutral.
- Elbow on raised surface to bring the shoulder into 30-40° abduction - neutral rotation- maintain throughout.

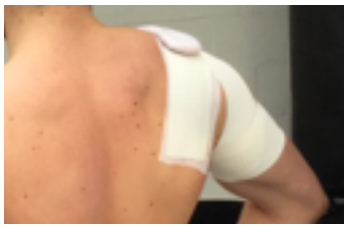
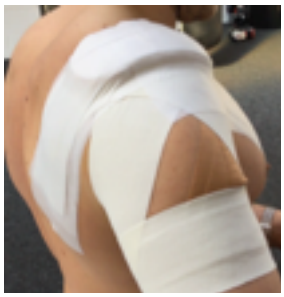
Technique

- Protective dressing over nipple area if taping going that low.
- Adhesive spray front + back. Hypafix 10cm width base layer.
- Anchor (1) mid-pec —> over ACJ —> mid-scap applying tension posteriorly from ACJ (modifications to chest anchor will be required in female patients)
- Anchor (2) - around contracted bicep - incomplete ring

- First lateral strip (LAT1) - start just medial to ACJ covering the anterior 1/2 of the joint line —> mid-posterior upper arm anchor - moderate tension in the first 1/3.

- First posterior strip (POS1) starts infero-laterally to anchor 1 —> over the ACJ —> finishes medially to anchor (1) on the scapula - moderate tension from ACJ posteriorly.
- Next LAT2 2/3 overlaps the initial strip going centrally over the ACJ and finishes posterior to the first.
- Next POS2 starts supero-medially to anchor (1) —> over the ACJ and finishes laterally to anchor 1.
- Last LAT3 overlaps the second by 2/3 but tracks a more of a vertical path to finish centrally on anchor (2).
- Last POS3 starts distally to anchor (1) and follows the same path finishing just distally to anchor (1).
- Hypafix can be used to finish this technique here or EAB/Thermoplastic guards can be added

Additions
EAB wrap (3" or 2" depending on size of patient) can be used to compress the rigid weave - start over the mid-anterior anchor (1)—> over the ACJ —> posterior deltoid around the contracted mid-belly of the bicep once then back up across the anterior deltoid to finish on the posterior section of anchor 1. Any padding or TP guards should be applied now otherwise two long sections of Hypafix can then be used to secure the construct.

<u>Technique - GHJ Torque Control - (EAB 5/7.5cm)</u>

Positioning in this technique depends on the requirements for the patient. You are looking to block them from reaching their painful or unstable range

Hand-on-hip (HIH) position - internally rotated:
- restricts external rotation range (mostly for tackling/contact sports)
- provides dynamic eccentric control of external rotation (think overhead athletes - swimmers, tennis, etc)

Mid-rotational range position in 60° abduction (use raised plinth for patient to rest forearm on).
- general weakness in the rotator cuff muscles
- sub-acromial impingement signs

Technique
Essentially there are 3 techniques that can be used independently or together. For the majority of shoulders with elements of labral damage all 3 combined gives an even compressive force.
Note: If combining taping techniques then overlap the previous start/finish point by 1/2 - 2/3. Do not apply tension to the start and finish points - otherwise the tape will roll up and will be more likely to detach during the event.

<u>Tech 1 - Figure 8 with loop</u>
- Start the tape (no tension for first 6cm) in the mid-scapula region applying 10% stretch as you lay it down. Come over the back of the GHJ line/posterior deltoid then down the mid-deltoid, under the

upper arm around the back of the tricep (Note: at this point ensure that the patient has their bicep contracted otherwise it will be uncomfortable/damaging to the bicep when they are warmed-up) and complete one lap of the bicep. Now move diagonally upwards at the back of the tricep over the mid-deltoid, the front of the GHJ line/anterior deltoid and finish in the mid-pec region (no tension on the last 6cm).



Tech 2 - Figure 8

- Start the tape (no tension for first 6cm) in the mid-scapula region applying 10% stretch as you lay it down. Come over the back of the GHJ line/posterior deltoid then down the mid-deltoid, under the upper arm around the back of the tricep and now move diagonally upwards at the back of the tricep over the mid-deltoid, the front of the GHJ line/anterior deltoid and finish in the mid-pec region (no tension on the last 6cm).



Tech 3 - Spiral

- Start behind the deltoid insertion coming forwards under the arm overlap the start point then obliquely across the front of the deltoid and across the pec to finish in mid-pec area



Removal

Peel back the base front and rear anchors. Cut away the tape going down the back of the deltoid and the triceps - use fingers to seperate skin and tape if needed.