



## LESSON 7

# ADVANCED STRETCHING FOR NECK AND SHOULDER PAIN

At Jing, we generally stretch the muscles towards the end of the session after treating fascial restrictions and trigger points (remember this is the 'S' in the HFMAST protocol).

**It is good practice to stretch every muscle you have treated for trigger points within the same session.**

### REVIEW OF DIFFERENT TYPES OF STRETCHING

There are three main types of stretching that we find clinically useful in Jing.

#### 1. Static or passive stretching

This is a form of static stretching used in treatment where the individual makes no contribution or active muscle contraction. Working with client communication, the therapist or trainer takes the muscle to be stretched to the end of its fullest range of motion and sustains this stretch for at least 15-30 seconds. This technique is often used and integrated into a massage session and is the basis for techniques such as Thai massage and Shiatsu.

Static stretching is also the most widely used individual form of self stretching as used in yoga.

#### Principles of passive stretching

- Position the client (and yourself) so that you can comfortably stretch the muscle. Visualise the location of the muscle underneath your hands.
- Talk your client through what is going to happen and agree a signal to signify when they are at the end of their ROM.
- Client inhales.
- Client exhales on stretch.
- Take stretch slowly until you sense an 'end feel' and the client communicates that they feel the stretch. Use language like "tell me when you feel the stretch" rather than "tell me when you have reached your limit" (as people often don't like to feel they have reached their limit!)
- Hold for 15-30 seconds, then deepen the stretch further if possible, working with client communication and your sense of listening touch. A static stretch held long enough (90-120 seconds) then becomes more of a myofascial stretch - a wonderful way of releasing long held fascial restrictions.

#### 2. PNF - Proprioceptive Neuromuscular Facilitation, similar to MET - Muscle Energy Technique

PNF uses a combination of passive stretch followed by active isometric muscle contraction of the same muscle to increase ROM. The steps in the process are as follows:

- The muscle in focus is elongated, just below the 'end feel'.
- When this position is reached, the client is encouraged to initiate an isometric contraction (i.e. a contraction where there is no movement and the muscle length remains unchanged), by resisting against the therapist's hand. This contraction is held for around 5 seconds. The muscle contraction should employ about 30% of the client's strength.
- The stretching muscle is then allowed to relax for 2 seconds and then stretched further passively (with aid of the therapist) and held in this new position for approximately 5 seconds. Staying at this new muscle length the whole process is repeated again 3-5 times or until maximum stretch has been reached.

Physical therapists, physiotherapists, athletic trainers and sports massage therapists often use this technique to obtain a measurable range of motion increase within a session.

More recent methods of PNF ask the client to actively take their body part to end range rather than the therapist doing this passively. This is also a viable option with any of the stretches demonstrated.

#### 3. Active isolated stretching

Aaron Mattes developed this technique; it uses active movement and the theory of reciprocal inhibition to achieve greater flexibility. The technique potentially has the three benefits of strengthening one set of muscles (through active ROM repetitions), stretching the opposing muscle and a certain element of a cardiac workout (especially if heavy body parts like the legs are being actively moved).

#### The steps in AIS are:

- Isolate the muscle or muscle group to be stretched.
- Client contracts the antagonist or opposing muscle or muscle group thereby actively lengthening the target muscle to its maximum stretch. Client exhales on the stretch.
- The stretch is then taken slightly further by assistance from either a therapist or an aid such as a rope or the client's own hand. Hold this position for 1.5 - 2 seconds then the client returns the limb to the starting position.

This sequence is repeated 8 - 10 times.



## PASSIVE STRETCHES FOR SHOULDER GIRDLE PAIN

### Infraspinatus and teres minor (1)

These muscles are both external rotators so they can be stretched by taking the arm into internal rotation.

- Client is supine.
- Shoulder abducted to 90 degrees and elbow flexed to 90 degrees.
- Their upper arm is resting completely on table. In forward Tai Chi facing the head of the table place one hand on the clients' pecs/head of humerus (to anchor shoulder down) and the other on their wrist.
- Ask your client to take a breath in and on their out breath push their palm to the floor whilst keeping their upper arm on the table – thus taking the shoulder (glenohumeral joint) into internal rotation.
- Ask your client to let you know when they start to feel the stretch, then wait and hold.
- As the client breathes in and out you may be able to take the stretch a little further.

### Subscapularis (2)

This muscle does internal rotation, so to stretch it you need to take the shoulder into external rotation.

- Client is supine
- Client has shoulder abducted to 90 degrees and elbow flexed to 90 degrees. (i.e. the "halt" position).
- Their upper arm is resting completely on the table. In forward Tai Chi facing the head of the table place one hand on the clients' pecs/head of humerus (to anchor shoulder down) and one on their hand so you are elbow to elbow.
- Ask your client to take a breath in and on their exhale take the back of their arm towards floor so shoulder goes into external rotation. Make sure you are not just bending client's wrist which should remain in neutral position.
- Ask your client to let you know when they start to feel the stretch, then wait and hold.
- As the client breathes in and out you may be able to take the stretch a little further.





### Latissimus dorsi (3)

- Client is prone.
- Stand in a low horse stance.
- Hold your clients arm, above the elbow and place your caudad (nearest the feet) hand on clients' iliac crest.
- Ask your client to take a deep breath in and on their exhale lean back so you are pulling on their arm and pushing their iliac crest towards their feet and hold.



### Pectorals (4)

- Client is in supine.
- Stand in a low horse stance at the head of the table.
- Hold onto your clients' wrists and ask them to hold on to yours.
- Ask your client to take a deep breath in and on their exhale lean and sit back, so you are pulling on their arms, double water skiing!
- When your client flags up that they can feel the stretch wait and hold.



### Triceps (5)

- Client is supine.
- Stand in forward Tai Chi stance at the head of the table, facing your clients' feet.
- Take your clients arms over their head so their upper arms are on the couch and their elbows are hanging off the edge.
- Ask your client to take a deep breath in and on their exhale lean in pressing on their triceps.
- If your client has limited range of motion you can put a bolster under their upper arm.





## PROPRIOCEPTIVE NEUROMUSCULAR FACILITATION (PNF) STRETCHES FOR SHOULDER GIRDLE PAIN

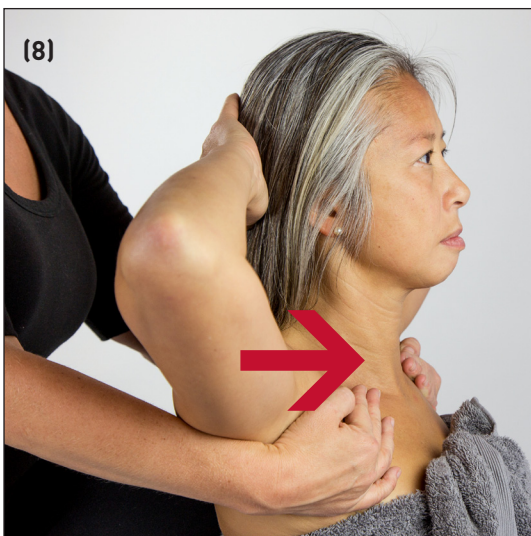
### Infraspinatus and teres minor (6)

- Client supine: Take the client to end range of ROM barrier as with the passive stretch.
- Ask your client to breathe in and then on the out breath to press back into your hand (taking the back of their hand up to the ceiling, external rotation) using 30% of their strength. Meet your client's effort with resistance so their arm doesn't move (this causes an isometric contraction of the infraspinatus and teres minor).
- Hold for a count of 5 then ask the client to breathe in and on the out breath you will be able to take the stretch a little bit further
- Repeat the whole process 3-5 times to ensure a maximal range of motion increase.



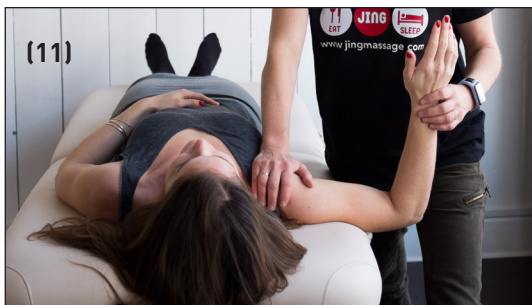
### Subscapularis (7)

- Client supine: Stretch client to ROM barrier as with passive stretch.
- Ask your client to breathe in and on the out breath to press back into your hand (taking their palm to the ceiling, internal rotation) using 30% of their strength. Meet your clients' effort with resistance so their arm doesn't move (this causes an isometric contraction of the subscapularis).
- Hold for a count of 5 then ask the client to breathe in and on the out breath you will be able to take the stretch a little bit further
- Repeat the whole process 3-5 times to ensure a maximal range of motion increase.



### Pectorals (8)

- Client is seated on edge of the couch. In kneeling t'ai chi stance come behind your client, so they are sitting on your foot and your knee supports their back.
- Ask your client to place their hands on the back of their head (as if being arrested!) and place your hands on their pectoral region.
- Ask your client to take a deep breath in and on their exhale pull back to take them into the passive stretch.
- On their next exhale ask your client to begin to slowly push against your hands as if bringing their elbows together using 30% of their strength. Provide matching resistance to this isometric contraction making sure that the client is pushing equally on both arms and not arching the back (hyper lordosis).
- Hold for a count of 5 then ask the client to breathe in and on the out breath you will be able to take the stretch a little bit further.
- Repeat the whole process 3 times to ensure a maximal range of motion increase.



## ACTIVE ISOLATED STRETCHES (AIS) FOR SHOULDER GIRDLE PAIN

### Infraspinatus and teres minor (9) (10) + (11)

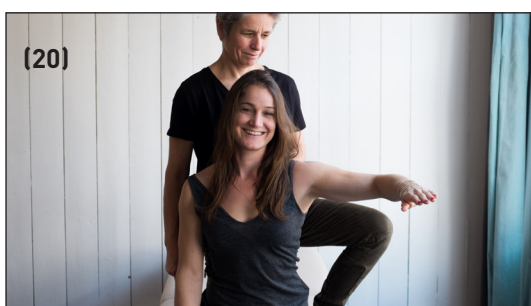
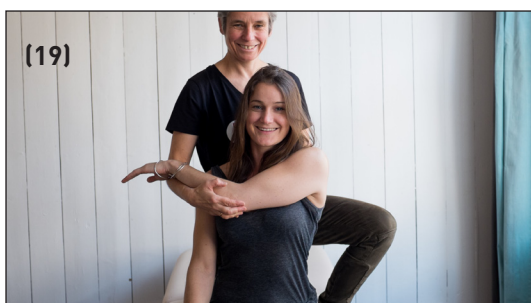
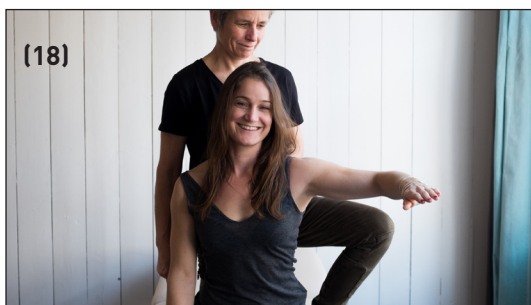
- Client supine, upper arm on the table, elbow flexed at 90 degrees with fingers pointing at the ceiling.
- Stand in forwards Tai Chi stance facing your clients head and anchor down their shoulder with your inside hand.
- Ask your client to actively take their arm into internal rotation (palm to floor).
- Therapist assists at the end of movement with an over-stretch for 1.5 - 2 seconds. Make sure you only assist the movement when the client is fully at the end range.
- Client actively takes their arm back to starting position and repeat
- Do 10 repetitions then a pause. Repeat process 2-3 times.

### Subscapularis (12) (13) + (14)

- Client supine, upper arm on the table, elbow flexed at 90 degrees with fingers pointing towards the ceiling
- Stand in forwards Tai Chi facing your clients head and anchor down their shoulder.
- Ask your client to actively take their arm into external rotation (back of the hand to the floor).
- Give gentle assistance at end of range to over-stretch for 1.5-2 seconds
- Client actively takes their arm back to the starting position and repeats.
- Do 10 repetitions then a pause. Repeat process 2-3 times.







### Latissimus dorsi - standing (15) (16) + (17)

- Client standing with arm of side to be stretched pointing up to the ceiling (stretching left side have left arm up to ceiling).
- Stand in forward Tai Chi stance to the side of your client.
- Client actively goes over into lateral flexion - I'm a little teapot!
- Gently assist at the end of range to over-stretch for 1.5-2 seconds, one hand on latissimus dorsi (armpit area) and one hand on their iliac crest.
- Client returns to a neutral position and repeats 10 times. Repeat process 2-3 times.

### Rhomboids (18) (19) + (20)

- Client is seated on edge of the couch. In kneeling t'ai chi stance come behind your client, so they are sitting on your foot and your knee supports their back.
- Anchor the rhomboids on the side being stretched with your soft fist
- Ask you client to actively take their arm across their body (horizontal adduction).
- Assist at the end of range by gentle hand placement on their elbow region to over-stretch the muscle for 1.5-2 seconds.
- Client actively takes their arm back to starting position and repeats 10 times.
- Carry out 2-3 sets of the whole process.



### Pectorals (21) (22) + (23)

- Client is seated on edge of the couch. In kneeling Tai Chi stance come behind your client, so they are sitting on your foot and your knee supports their back.
- Ask your client to place their hands behind their head (arresting position). Direct them to touch their elbows together in front and then actively bring the elbows back towards you, opening the chest.
- At the end of range increase the stretch for 1.5-2 seconds through gentle hand placement on the upper arms.
- Client then actively returns to the starting position. Repeat 10 times and carry out 2-3 sets.