

PA Shoulder Assessment

Name:

Age / Sex:

Date:

Occupation:

Address:

Phone/Email:

Chief
Complaint:

History:

Present History

Narration by patient
Duration of symptoms:
Mechanism of injury:
Mode of onset & progression:

Pain History

Intensity:
Type of pain:
Aggravating and Relieving factors:

Past History

Any history of Tuberculosis:
Diabetes:
History of trauma:
Exercise history:

PA Shoulder Assessment

Radiological Investigations / Lab tests

Diagnostic Imaging Radiographs of the shoulder can be used to identify normal joint, cysts, sclerosis, or acromial spurs, osteopenia, osteoarthritis of the acromioclavicular and glenohumeral joint, or calcific tendonitis. Common radiographic views may include (this may vary depending on medical provider):

- Supraspinatus Outlet View
- Scapular Y-View
- Axillary View
- Anterior-Posterior (AP) View

- MRI Scan

Capsular injury

Tendon injury

Vascular injury

- Recent blood tests (To detect the level of infection, inflammation, level of calcium precursors, to rule out gouty arthritis and average blood sugar level)

Complete haemogram with total and differential count

ESR

FBS/PPBS

HbA1C

25-OH-Vit D3

CRP

Serum Uric acid

Clinical reasoning based on subjective assessment i.e. possible factors for shoulder pain

PA Shoulder Assessment

Observation

- Patient Build:
- Position of limb comfort
- Posture
- Observable signs of inflammation

Examination

Tenderness

Grading

- 1 : Patient complains of pain
- 2 : Patient complains of pain & winces
- 3: Patient winces & withdraws
- 4: Patient will not allow palpation of the joint

A full UQE to rule out cervical spine involvement or any neurological pathology.

Red Flags

Determine if patient's symptoms are reflective of a visceral disorder or a serious potential life-threatening illness such as cancer, visceral pathology or fracture.^[23]

- Polymyalgia rheumatica. Often presents as bilateral shoulder pain and weakness. These patients must be assessed for temporal arteritis
- Acute compartment syndrome. May result from significant limb swelling following an injury or an excessively tight bandage or cast. The pain is disproportionate to the injury. Pulselessness of the limb does not usually occur, or is a very late sign. This condition is a surgical emergency^[6]
- Open fractures
- Fractures with nerve or vascular compromise
- Skin, but more particularly joint infections
- Neoplasia
- Serious and life threatening conditions that present with symptoms mimicking shoulder pain, such as referred ischemic cardiac pain
- Left Shoulder- -MI 68.7% of patients reported shoulder pain during an acute myocardial infarction.

PA Shoulder Assessment

Yellow Flags

To assess for yellow flags, if suspected these tools may be used;

The Fear Avoidance Belief Questionnaire (FABQ)

Depression Screening tools such as the Beck Depression Inventory (BDI) or the Depression Anxiety Screening Scale (DASS) are useful in screening patients for depression.

The Pain Catastrophizing Scale, helps determine if the patient is exaggerating their pain and symptoms and the severity of the situations as a whole.

Fractures

Fractures may result from trauma such as falls onto an outstretched hand. These are known as FOOSH injuries. Commonly fractured within the shoulder region

- Humeral Fractures
- Clavicle Fractures
- Fractures of the clavicle usually result from a direct blow to the shoulder giving axial compression. The middle 1/3 of the clavicle is most often broken with an incidence of ~80%. Distal clavicle fractures have an incidence of 10-15% and medial clavicle fractures have an incidence of 3 to 5%. Significantly displaced fractures are managed surgically. Mid-shaft clavicle fractures have a lower rate of mal-union and better functional outcomes at one year. A trial of conservative management may be warranted for non-displaced clavicular fractures.

Palpation

- Joint Line
- Supraspinatus Tendon
- Spasm
- End feel

PA Shoulder Assessment

Movement Testing

The patient performs active movements in all functional planes for the shoulder. This includes flexion, extension, abduction, adduction and internal and external rotation. Estimate the range of movement and compare the affected with the unaffected shoulder and with the normal expected range:

Active Range of Motion (ROM)

Glenohumeral Joint Motions

- Horizontal Adduction
- Horizontal Abduction
- Flexion
- Extension
- Internal Rotation
- External Rotation
- Abduction/Adduction
- Abduction in the plane of the scapula
- Abduction/Adduction
- Upward/Downward Rotation
- Elevation/Depression

Dysfunction - affecting movements. Which movements are limited. This can help isolate the structure

Movements may be limited by:

- pain: tendinopathy, impingement, sprain/strain, labral pathology
- mechanical block: labral pathology, frozen shoulder
- night pain (lying on affected shoulder): rotator cuff pathology, anterior shoulder instability, ACJ injury, neoplasm (particularly unremitting)
- sensation of 'clicking or clunking': labral pathology, unstable shoulder (either anterior or multidirectional instability)
- sensation of stiffness or instability: frozen shoulder, anterior or multidirectional instability

Passive ROM

May include each of the motions stated in the active ROM section. The therapist may opt to include overpressure to further stress the joint.

PA Shoulder Assessment

Muscle Length Assessment

Assessment of the flexibility of certain muscles may be warranted in patients with shoulder pain. These muscles may include, but are not limited to:

- Latissimus Dorsi
- Pectoralis Minor/Major
- Levator Scapulae
- Upper Trapezius
- Scalenes (anterior/middle/posterior)

Muscle Strength

Resistive testing of the shoulder muscles typically includes the following motions:

- Shoulder Flexion
- Shoulder Extension
- Shoulder Abduction
- Horizontal Abduction
- Horizontal Adduction
- Internal Rotation
- External Rotation

Resistive testing of the scapular stabilization muscles may include:

- Upper trapezius
- Middle trapezius
- Lower trapezius
- Serratus Anterior
- Rhomboids
- Levator Scapulae

Joint Mobility Assessment

Assessment of the mobility of the joint may indicate hypo mobility with in the joint or elicit symptoms.

- Glenohumeral
 - Anterior
 - Posterior
 - Inferior
 - Distraction

PA Shoulder Assessment

- Acromioclavicular
 - Anterior
 - Posterior

- Sternoclavicular
 - Anterior
 - Posterior
 - Superior
 - Inferior

- Scapulothoracic
 - Elevation
 - Depression
 - Upward/downward rotation
 - Protraction/Retraction

Range of Movement Assessment - Active/Passive

Movement	Shoulder		Cervical		Thoracic	
	Active	Passive	Active	Passive	Active	Passive
Flexion						
Extension						
Adduction						
Abduction						
Left Lateral Flexion						
Right Lateral Flexion						
Left Rotation						
Right Rotation						

PA Shoulder Assessment

Special Tests

Shoulder Shrug Sign (inability to lift the arm to 90° abductions without elevating the whole scapula or shoulder girdle)

Hand to neck

- Shoulder flexion + abduction + ER
- Similar to ADLs such as combing hair, putting on a necklace

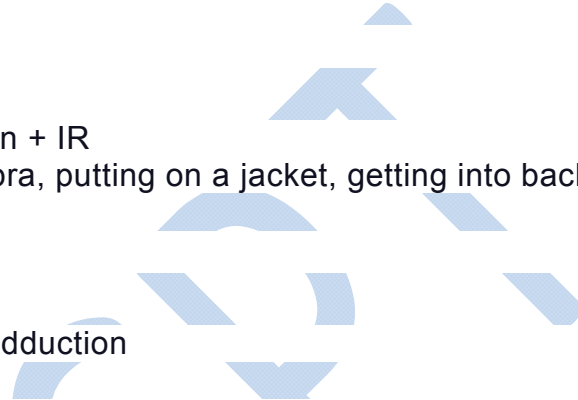
Hand to scapula

- Shoulder extension + adduction + IR
- Similar to ADLs such fitting a bra, putting on a jacket, getting into back pocket

Hand to opposite scapula

- Shoulder flexion + horizontal adduction

- Sub acromial Related Shoulder Pain
- Biceps Tendinopathy
- Labral Tears
- Laxity/Instability



PA Shoulder Assessment

Shoulder pain disability index (SPADI)

The Shoulder Pain and Disability Index (SPADI) is a self-administered questionnaire that consists of two dimensions, one for pain and the other for functional activities. The pain dimension consists of five questions regarding the severity of an individual's pain. Functional activities are assessed with eight questions designed to measure the degree of difficulty an individual has with various activities of daily living that require upper-extremity use. The SPADI takes 5 to 10 minutes for a patient to complete and is the only reliable and valid region-specific measure for the shoulder.

Scoring instructions

To answer the questions, patients place a mark on a 10cm visual analogue scale for each question. Verbal anchors for the pain dimension are 'no pain at all' and 'worst pain imaginable', and those for the functional activities are 'no difficulty' and 'so difficult it required help'. The scores from both dimensions are averaged to derive a total score.

Interpretation of scores

Total pain score: ----/ 50 x 100 = %

(Note: If a person does not answer all questions divide by the total possible score, e.g. if 1 question missed divide by 40)

Total disability score: ----/ 80 x 100 = %

(Note: If a person does not answer all questions divide by the total possible score, e.g. if 1 question missed divide by 70)

Total SPADI score: ----/ 130 x 100 = %

(Note: If a person does not answer all questions divide by the total possible score, e.g. if 1 question missed divide by 120)

The means of the two subscales are averaged to produce a total score ranging from 0 (best) to 100 (worst). Minimum Detectable Change (90% confidence) = 13 points (Change less than this may be attributable to measurement error)

PA Shoulder Assessment

Please place a mark on the line that best represents your experience during the last week attributable to your shoulder problem.

Pain scale

How severe is your pain?

Circle the number that best describes your pain where: 0 = no pain and 10 = the worst pain imaginable.

At its worst?	0	1	2	3	4	5	6	7	8	9	10
When lying on the involved side?	0	1	2	3	4	5	6	7	8	9	10
Reaching for something on a high shelf?	0	1	2	3	4	5	6	7	8	9	10
Touching the back of your neck?	0	1	2	3	4	5	6	7	8	9	10
Pushing with the involved arm?	0	1	2	3	4	5	6	7	8	9	10

Disability scale

How much difficulty do you have?

Circle the number that best describes your experience where: 0 = no difficulty and 10 = so difficult it requires help.

Washing your hair?	0	1	2	3	4	5	6	7	8	9	10
Washing your back?	0	1	2	3	4	5	6	7	8	9	10
Putting on an undershirt or jumper?	0	1	2	3	4	5	6	7	8	9	10
Putting on a shirt that buttons down the front?	0	1	2	3	4	5	6	7	8	9	10
Putting on your pants?	0	1	2	3	4	5	6	7	8	9	10
Placing an object on a high shelf?	0	1	2	3	4	5	6	7	8	9	10
Carrying a heavy object of 10 pounds (4.5 kilograms)	0	1	2	3	4	5	6	7	8	9	10
Removing something from your back pocket?	0	1	2	3	4	5	6	7	8	9	10

PA Shoulder Assessment

SMART Goals

1. Patient education about the condition and prognosis of PA shoulder.
2. Pain reduction using (VAS or NPRS as reference) within a set period of time.
3. Swelling / Oedema reduction using quantifiable methods such as girth and temperature.
4. Improve Joint ROM and muscle flexibility. Quantify the improvement.
5. Improve muscle strength and endurance with grading.
6. Correct deformity by identifying the root cause and quantifying the deformity with reference to normal.



PA Shoulder Assessment

INTERVENTION

Initial Phase: Painful, Freezing

Pain relief and the exclusion of other potential causes of frozen shoulder is the focus during this phase.

Very gentle shoulder mobilization, muscle releases, and kinesiology taping for pain-relief can assist during this painful inflammation phase. The application of a TENS machine has shown to reduce pain and increase range of motion.

Modalities, such as hot packs, can be applied before or during treatment. Moist heat used in conjunction with stretching can help to improve muscle extensibility and range of motion by reducing muscle viscosity and neuromuscular mediated relaxation.

Pain relief should be the focus of the initial phase, also known as the painful, freezing Phase. During this time, any activities that cause pain should be avoided. Better results have been found in patients who performed simple pain free exercise, rather than intensive physical therapy.

In patients with high irritability, range of motion exercises of low intensity and short duration can alter joint receptor input, reduce pain, and decrease muscle guarding.

Stretches may be held from one to five seconds in a pain free range, 2 to 3 times a day.

A pulley may be used to assist range of motion and stretch, depending on the patient's ability to tolerate the exercise.

Core exercises include pendulum exercise, passive supine forward elevation, passive external rotation with the arm in approximately 40 degrees of abduction in the plane of the scapula, and active assisted range of motion in extension, horizontal adduction, and internal rotation.

PA Shoulder Assessment

Second Phase: Decreased ROM

Gentle and specific shoulder joint mobilization and stretches, muscle release techniques, and exercises to regain range and strength.

Mobilization with movement (MWM)

During the second phase of treatment, movement with mobilization and end range mobilizations are recommended.

Mobilization with movement can also correct scapulohumeral rhythm significantly better than end range mobilization. The goal for end range mobilization is not only to restore joint range, but also to stretch contracted peri-articular structures, whereas mobilization with movement aims to restore pain free motion to the joints that had antalgic limitation of range of motion.

Physical therapy paired with dynamic splinting has better outcomes compared to physical therapy alone or dynamic splinting alone.

Third Phase: Resolution or thawing phase

Provide with exercise progressions including strengthening exercises to control and maintain increased range of movement.

Progress primarily by increasing stretch frequency and duration, whilst maintaining the same intensity, as tolerated by the patient.

The stretch can be held for longer periods and the sessions per day can be increased. As the patient's irritability level reduces, more intense stretching and exercises using a device, such as a pulley, can be performed to influence tissue remodeling.