

# SHOULDER DISLOCATION

REHABILITATION PROTOCOL

Copyright Advanz Health
Sports Medicine & Physiotherapy

# SHOULDER DISLOCATION

A shoulder dislocation occurs when the "ball" of your humerus (upper arm bone) is pulled out of its normal position in the shoulder "socket" (glenoid labrum). A dislocation is accompanied with extreme pain and an inability to move your arm until it is relocated back into the socket. It is the most commonly dislocated large joint and has an estimated prevalence of 2% - 8% in the general population.

A shoulder subluxation is a partial shoulder dislocation, when the shoulder joint comes part way out before relocating.

# Posterior Dislocation Anterior Dislocation Scapels Scapels Inferior Dislocation FainAssist.com PainAssist.com

https://www.epainassist.com/images/Causes-and-Types-of-Shoulder-Joint-Dislocation.jpg

# MECHANISM OF INJURY

There are many ways in which a shoulder dislocation and subluxation occur, however the main ones are listed below:

- 1. Traumatic shoulder dislocation: this occurs when the shoulder is in a non-optimal and vulnerable position and is displaced out of its joint socket. It is commonly seen when the arm is out to the side e.g. in a tackle or fall
- 2. Repetitive shoulder ligament strain: Repetitive movements and stretching into the shoulder joint e.g. throwing sports like baseball
- 3. Genetic hypermobility: Ligaments are an important support structure in the shoulder, and people with genetic hypermobility (born with loose ligaments and connective tissue) are more prone to dislocation and subluxation.

#### **Recurrent Shoulder Dislocations**

Individuals younger than 25 years old are likely to re-dislocate with non-operative management. Surgery reduces risk of recurrent instability.

The risk of recurrent dislocations is influenced by the age at the time of initial dislocation. In patients <20 years old the rate of recurrent instability is 72-100%, in those aged between 20-30 years it is 70-82% and in patients >50 years old it is 14-22%.

#### **Prognosis**

Once the shoulder joint has been restored to its optimal position after a shoulder dislocation, it can take up to a year for the rehabilitation to be completed (although most people return to sport after 12 weeks if non-surgical and 6-months if surgical).

## PROTOCOL USER GUIDE

This protocol is a guide for both clinicians and patients outlining the conservative (non-surgical) rehab of a shoulder dislocation. Every person's situation is different, therefore you must move through the protocol at your own pace and the progression criteria should dictate how quickly you go; it is not timeline based. Use pain as a guide. If the pain increases consult your physio/surgeon.

Clinicians should use a clinical reasoning approach in prescribing an exercise rehabilitation program and management advice for each phase. This protocol briefly suggests typical exercises for each phase, but programs should always be individualised.

### ACUTE PHASE (7 DAYS POST-INJURY)

Immobilisation with a sling for the first few days to promote healing of shoulder joints. It is important to be careful with your arm in this phase and to not move your shoulder in vulnerable positions.

#### GOALS

- Patient understands timeframes of healing process and rehabilitation process
- Wean from sling

#### **PRECAUTIONS**

- Screen for contraindications and red flags e.g. neural symptoms and Bankart lesions
- No overhead movements with weights

# RECOMMENDED PROGRAM

- 1. Education on the importance of compliance of rehab program
- 2. Ice therapy for pain relief (GameReady in clinic or ice-bath at home)

# CRITERIA TO PROGRESS TO NEXT PHASE

Pain controlled

## PHASE 1: EARLY REHAB (WEEKS 2-3)

#### GOALS

- Patient understands timeframes of healing process and rehabilitation process
- Normal scapulohumeral rhythm
- Obtain full active range of motion
- Muscle re-education and activation especially RC muscles
- Maintain fitness

#### **PRECAUTIONS**

- Screen for contraindications and red flags e.g. neural symptoms and Bankart lesions
- No overhead movements with weights
- Avoid ER beyond Odeg
- No combination of abduction/ external rotation movements

# RECOMMENDED PROGRAM

- 1. Manual therapy to address muscular tightness, pain and function
- 2. Ice therapy for pain relief (GameReady in clinic or ice-bath at home)
- 3. AAROM with stick
- **4. Activation and strengthening** of RC muscles.
- 5. Closed chain stabilisation exercises
- 6. Fitness
  maintenance:
  Gym-based
  exercises for upper
  body, bike

# CRITERIA TO PROGRESS TO NEXT PHASE (TICK WHEN COMPLETE)

- Full active range of motion in shoulder
- Minimal pain and inflammation
- 4/5 strength in rotator cuff and deltoid
- Minimal winging of scapula with wall push up
- □ No evidence of instability
- Good
  understanding
  of normal
  posture



# PHASE 2 — STRENGTH PHASE (4-6 WEEKS)

#### GOALS

#### Full AROM

- Normal scapulohumeral rhythm at faster speeds
- Regain shoulder stability into flexion range 90° and above
- Decrease pain and inflammation
- Increase shoulder strength

#### **PRECAUTIONS**

- Avoid exercise that causes more than moderate pain (>3/10)
- No overhead movements with weights
- No combination of abduction/ external rotation movements

# RECOMMENDED PROGRAM

- 1. Mobility exercises
- 2. Reformer Pilates based rehabilitation
- 3. Strengthening program for upper body
- **4. Stability** and perturbation ex's
- **5. Aerobic/endurance** activity
- **6. Manual therapy** to address muscular tightness, pain and function

# CRITERIA TO PROGRESS TO NEXT PHASE (TICK WHEN COMPLETE)

- ☐ No swelling
- ☐ Pain free AROM and normalised scapulohumeral rhythm
- ☐ Strength within 95% of the other side



# PHASE 3 — FUNCTIONAL STRENGTHENING (7-12 WEEKS)

#### GOALS

- Pain free functional weight-bearing activity
- Advanced strengthening
- Initiate sport specific exercise rehab

#### **PRECAUTIONS**

- Avoid activity that causes pain greater than 3/10 on VAS
- Slow progression towards combined abd/ER

# RECOMMENDED PROGRAM

- 1. Advanced proprioception/ perturbation exercises
- 2. Advanced strengthening for shoulder and full kinetic chain
- 3. Continue aerobic activity
- 4. Sport Specific

  Drills individualised to the client
- Functional taping if needed for sport/ work

# CRITERIA TO PROGRESS TO NEXT PHASE

- Upper extremity test passed (95% in comparison to other side)
- Full functional strength, stability and proprioception
- Specific movement screen for your sport
- Pain free return to sport
- Knowledge of dislocation prevention

NB: It is recommended to continue program for 6 weeks after full return to your normal activities/ sport.



# PHASE 4 — DYNAMIC STRENGTH AND STABILITY PHASE (5 MONTHS-1 YEAR)

#### GOALS

- Continue to improve muscular strength and stability
- Return to desired activities
- Prevention of recurrence

#### **PRECAUTIONS**

 Avoid ER above 90deg until after 6 months

# RECOMMENDED PROGRAM

- 1. Manual therapy to improve ROM, alignment and reduce mm tone
- 2. Graded strengthening program: isotonic movements (see videos)
- 3. Fitness
  maintenance:
  Stationary bike,
  xtrainer
- **4. Biomechanical** retraining
- 5. Plyometrics
- 6. Proprioception training

# CRITERIA TO PROGRESS TO NEXT PHASE

Surgeon and physio will clear for return to sport once sports/activityspecific criteria are met (usually at 6months + for contact sports)



## RETURN TO SPORT TESTING

This is a general return to sport test and an individualised testing routine should be used for each client and their relevant goals and sport.

EXERCISES	DESCRIPTION	CRITERIA TO PROGRESS BACK TO SPORT
Timed push up test	How many push ups can be completed in 1 minute	<ul><li>Males &gt;18</li><li>Females &gt; 12</li></ul>
Hand held dynamometer	Testing internal and external rotation strength against the dynamometer.	95% within each other Also aim to have Internal rotation strength no more than 1.6x external rotation strength on the same side.
Seated Medicine Ball throw	Sitting with the back against a wall with legs extended. Bring ball to chest and throw whilst keeping back against the wall.  Males 6lbs females 4lbs ball	<ul> <li>Best of 3 trials</li> <li>Excellent 5.76m+</li> <li>Good 5 - 5.75m</li> <li>Average 4.25 - 4.99m</li> <li>Below average 3.5 - 4.24m</li> <li>Poor 0 - 3.49m</li> </ul>
Closed Kinetic Chain Upper Extremity Stability Test	In push up or modified push up position with hands 36 inches apart.  Count how many times one hand can touch the other in	Males 24 Females 27 Usually get improvement of 3-4 between tests.



3 attempts with 45 seconds

15 seconds

rest

## RETURN TO SPORT TESTING

This is a general return to sport test and an individualised testing routine should be used for each client and their relevant goals and sport.

EXERCISES	DESCRIPTION	CRITERIA TO PROGRESS BACK TO SPORT
Timed push up test	How many push ups can be completed in 1 minute	<ul> <li>No pain</li> <li>95-100% function of the uninjured side</li> <li>Good form/technique</li> </ul>
Hand held dynamometer	Testing internal and external rotation strength against the dynamometer.	<ul> <li>No pain</li> <li>95-100% function of the uninjured side</li> <li>Good form/technique</li> </ul>
Seated Medicine Ball throw	Sitting with the back against a wall with legs extended. Bring ball to chest and throw whilst keeping back against the wall.  Males 6lbs females 4lbs ball	<ul> <li>No pain</li> <li>95-100% function of the uninjured side</li> <li>Good form/technique</li> </ul>
Closed Kinetic Chain Upper Extremity Stability Test	In push up or modified push up position with hands 36 inches apart.  Count how many times one hand can touch the other in 15 seconds  3 attempts with 45 seconds	<ul> <li>No pain</li> <li>95-100% function of the uninjured side</li> <li>Good form/technique</li> </ul>

Sports Medicine & Physiotherapy