# LATARJET



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# THE BASICS

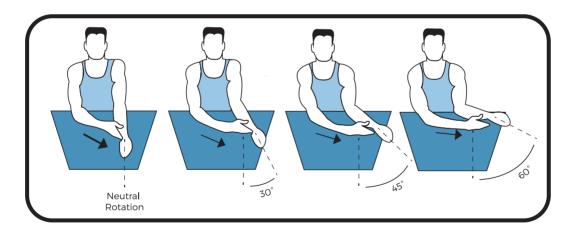
This program sets out the rehabilitation required to get the best possible result from your shoulder stabilisation surgery.

There are a few basic concepts that are very important to the rehabilitation for shoulder stabilisation surgery:

## 1. Stretching and strengthening

- Stretching (passive movement) involves moving a joint using external forces. The early phases of rehabilitation are mostly about stretching. It must be done early before scar tissue forms causing stiffness. So it is time critical you cannot put it off until next week when you are feeling better. Stretches are a low load, long duration activity. The mantra is "stretch and hold".
- Strengthening (active movement) involves moving a joint using your own muscles. Early the reconstruction cannot withstand substantial strength work. We build in strength work as the reconstruction heals.

#### 2. External rotation



Most shoulders dislocate out the front of the socket (anterior). Shoulder dislocation is provoked by external rotation, the action of rotating your arm away from your body as shown in the diagram above. The shoulder is particularly vulnerable in the stop sign position with the arm elevated and externally rotated.

Reconstruction for shoulder dislocation and instability is principally about stabilising the shoulder in external rotation. So as you progress through the rehabilitation program, there will be very specific targets for your range of external rotation. Progressing a little bit ahead of these targets is good, but too far will stress the reconstruction. Fail to reach these minimum targets and you risk long term stiffness and a frozen shoulder.

There is a safe middle path to follow. As a rule of thumb those targets are:

- · Three weeks neutral external rotation
- · Six weeks thirty degrees of external rotation
- · Nine weeks forty-five degrees of external rotation
- Twelve weeks sixty degrees of external rotation (or more)

As you progress through the rehabilitation program, keep these targets in mind. If you are falling behind schedule, push the stretches harder.

# THE FIRST WEEK

#### 1. WOUND MANAGEMENT

Dressings applied in hospital generally do not need to be changed. They are waterproof. You can leave them in place until your post-operative wound check with the nurse at seven to ten days. Keep your wounds dry for the first week.

#### 2. SWELLING

In the days immediately after surgery, the shoulder will be very swollen. Regular application of ice will reduce swelling and help pain control. Some form of ice should be applied for fifteen to twenty minutes, at least three times a day. This can be as simple as a bag of frozen peas but there are newer devices such as a CryoCuff or Game Ready.

#### 3. BRUISING

Shoulder surgery will often produce significant bruising. Gravity will cause the blood to move downwards and it can be prominent in the pectoral region or down to the elbow crease. The bruising is not a cause for concern and will resolve over a few weeks.

#### 4. SLING

You will be required to wear a sling at all times except when doing your exercises. The sling will be worn for six weeks. During the last two weeks, it is possible to get around the house without the sling but continue to wear it when out of the house or asleep.

#### 5. SLEEP

Shoulder pain is always worse at night. Getting comfortable to sleep after shoulder surgery can be a real challenge. It is important to wear the sling during your sleep to avoid the arm being accidently forced into external rotation. You can also prop yourself up with pillows in any position that is comfortable.

If you are taking strong narcotic painkillers, you should not combine these with sleeping tablets.

#### 6. HOW HARD DO I PUSH?

A bit of a nudge with the exercises is required. During the entire program, use these simple guides:

- a) Gritting your teeth is okay, but tears in the eyes is not.
- b) You must be able to do tomorrow what you did today. If you wake up so sore you need a rest day you did too much.
- c) A pain score of 3 out of 10 is okay, no more.

#### 7. PHYSIOTHERAPY

This program is meant to be conducted under the supervision of a physiotherapist where possible. Physiotherapy review every two weeks is advisable in the initial three months.

#### 8. DRIVING

It is not possible to drive while you are wearing a sling, both for legal reasons and to protect the repair. Driving can resume six to seven weeks after surgery.

#### 9. PAIN RELIEF

Shoulder surgery is definitely one of the more painful orthopaedic operations. Successful pain relief strategies require regular use of simple analgesics such as Panadol and anti-inflammatories, topped up with intermittent stronger analgesics. Refer to the guidelines "Pain Relief After Surgery".

# STAGE ONE

# WEEKS ONE TO THREE (DAYS 1 TO 21)

During this phase you will be wearing a sling. However, if you are sitting down it is quite okay to take the sling off and pop the elbow on some pillows to allow you to bend and straighten the elbow and relax your neck muscles. The main role of the sling is to prevent accidental forceful external rotation.

Right from day one, it is all about stretching after your shoulder stabilisation surgery. The reconstruction will not allow us to do any substantial strength work at this stage. Getting away to a good start can cut months off your recovery. Conversely, a slow start and the stiffness will set in even after a week or two.

It is all about the Big 3 - cradle pendulums, passive flexion and passive external rotation. Most of the other exercises in this phase are for comfort or relief of muscle spasm.

Early on, when your shoulder is sore, do lots of little sessions. Four times per day is a minimum, every hour if you want, and focus on those three main exercises.

Every exercise block in this program will start with some scapula (shoulder blade) strengthening. The shoulder blade floats on the rib cage, only held in place by muscles and ligaments. A stable scapula is the platform for normal shoulder function. It is said that a shoulder with a weak scapula is like firing a cannon from a canoe.

# Objectives by the end of this stage

- 1) The passive range of motion targets are:
  - a) External rotation to neutral
  - b) Forward flexion to 90°
  - c) Abduction to 90°
- 2) You should be winding down the narcotic painkillers. Manage your pain with regular Panadol, and anti-inflammatories, and possibly a short term sleeping tablet.

# WEEKS ONE TO THREE EXERCISES

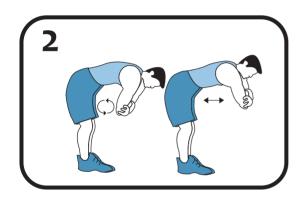
# **SCAPULA**



#### 1. Scapula setting

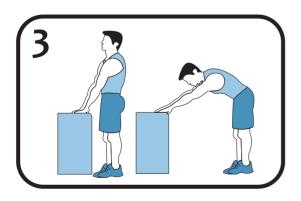
Pull the shoulders back and squeeze the shoulder blades together. Hold for 10 seconds. Repeat x3.

# **PASSIVE**



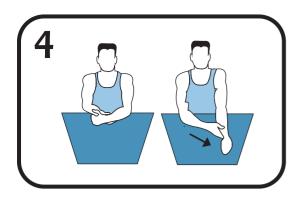
## 2. Cradle pendulums

Use your good arm to support the forearm and elbow of the sore arm. Lean well forward at the waist. Do 10 circles in each direction, then 10 movements back and forward as far as you can go. Repeat x3. The key to this exercise is to bend further at the waist and make the circles bigger and bigger as each week goes by. This is the core exercise for the program in the first 6 weeks. It is very safe and pushing harder will not do any damage. There is no upper limit to how much time you can spend doing this exercise.



#### 3. Passive flexion table stretch

Place your hands on the edge of a table. Walk backwards until you gently feel the stretch. Don't be afraid to bend aggressively at the waist and step well back from the table as you progress. Hold for 30 seconds. Repeat x3.



#### 4. Passive external rotation - seated

Sit with your arm resting on a pillow or table. Use your good hand to rotate the other arm outwards. Ensure you keep the elbow at your side. Hold for 30 seconds. Repeat x3.

# **OTHER**



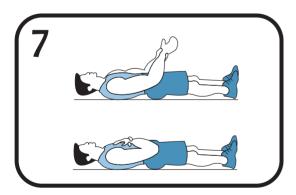
#### 5. Squeeze ball

Use the squeeze ball throughout the day. This helps circulation in the hand and reduces swelling in the fingers.



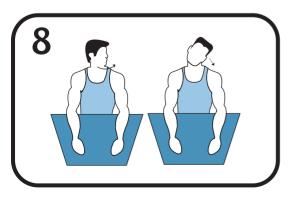
#### 6. Wrist circles

Circle clockwise x10, and reverse direction. Repeat with a side-to-side motion instead of circles. Do this throughout the day.



# 7. Elbow flexion/extension

Lie flat on your back with your elbows support by a pillow. Use your good arm to assist bending and straightening the elbow. Repeat x10.



#### 8. Neck stretches

Turn and look over your left shoulder for 10 seconds, repeat looking over your right shoulder. Then stretch to the side taking your ear towards your shoulder and hold for 10 seconds. Switch to the other side. Repeat regularly throughout the day.

# STAGE TWO

# WEEKS FOUR TO SIX (DAYS 22 TO 42)

The sling is still required during this stage. However in the later parts of this stage, it is safe to walk around the house without the sling on. Continue to wear it at night and when out of the house. Remember the main role of the sling is to prevent accidental forceful external rotation.

The main progression at this stage is that we are looking to see the range of external rotation increase to approximately 30°.

#### Objectives by the end of this stage

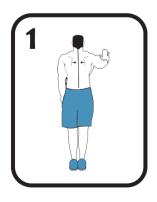
- **1.** The passive range of motion targets are:
  - a. Forward flexion to 135°
  - b. Abduction to 90°
  - c. External rotation 30°

Your physiotherapist will measure these movements.

- **2.** The sling comes off at the end of this stage.
- 3. You should have ceased narcotic painkillers completely.

# STAGE TWO - WEEKS 4 TO 6

# **SCAPULA**



# 1. Wall push

Lightly push your straight arm into the wall and squeeze the shoulder blades together. Note that you will need to assist your arm up to this position. Do not lift your operated arm under it's own power. Hold for 10 seconds. Repeat x3.

Repeat this drill with your arm at a higher point on the wall (above horizontal) and at a lower point on the wall (below horizontal).



#### 2. Lying alphabet

Lying on your back, use the opposite arm to assist your arm into a vertical position. Write the letters of the alphabet from A to Z in the air.

# **PASSIVE**



#### 3. Cradle pendulums

Use your good arm to support the forearm and elbow of the sore arm. Lean well forward at the waist. Do 10 circles in each direction, then 10 movements back and forward as far as you can go. Repeat x3. The key to this exercise is to bend further at the waist and make the circles bigger and bigger as each week goes by.

# 4. Passive flexion



Place your hands on the edge of a table. Walk backwards until you gently feel the stretch. Don't be afraid to bend aggressively at the waist and step well back from the table as you progress. Hold for 30 seconds. Repeat x3.



# 5. External rotation 30 degrees

Sit with your arm resting on a pillow or table. Use your good hand to rotate the operated arm outwards to the 30° position. Ensure you keep the elbow at your side. Hold for 30 seconds. Repeat x3.

# **ACTIVE ASSISTED**



## 6. Walk fingers up wall - assisted flexion

Stand facing a wall and support your operated arm at the elbow with your fingertips on the wall. Walk your fingers up the wall until you feel the stretch. Hold for 10 seconds. Assist your arm to slide down the wall. Repeat x5.

## 7. Broomstick flexion - lying



Lying on your back, both hands hold a short piece of broomstick across the front of your thighs, your good arm assisting weak arm. Lift the arms straight up as far as possible. Hold for 10 seconds. Lower down. Repeat x5.

#### 8. Elbow flexion/extension



Lie flat on your back with your elbows support by a pillow. Use your good arm to assist bending and straightening the elbow. Repeat x10.

# STAGE THREE

# WEEKS SEVEN TO NINE (DAYS 43 TO 63)

The sling comes off at this stage. We move on to a more aggressive stretching program using pulleys. The rehab sessions can get a bit longer and less frequent, twice a day is adequate.

It is also time to bring in some regular general exercise such as walking and exercise bike.

It is okay to do some lifting by bending at the elbow - this does not involve the shoulder. So you can lift half a kilogram up to bench level but not lifting above that height.

#### Objectives by the end of this stage

- 1. The range of motion should be:
  - **a.** Forward flexion to 160°
  - **b.** Abduction to 135°
  - **c.** External rotation to 45°

Your physiotherapist will track your range of motion.

2. Lifting half to one kilogram.

# STAGE THREE EXERCISES

# **SCAPULA**



## 1. Wall push

Lightly push your straight arm into the wall and squeeze the shoulder blades together. Hold for 10 seconds. Repeat x3.

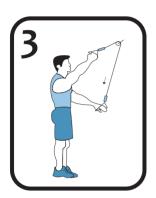
Repeat this drill with your arm at a higher point on the wall (above horizontal) and at a lower point on the wall (below horizontal).

#### 2. Lying alphabets



Lying on your back, use the opposite arm to assist your arm into a vertical position. Write the letters of the alphabet from A to Z in the air.

# **PASSIVE**



#### 3. Pulley flexion

Set the pulley up at the top of a door. Stand facing the door. Pull down with your good arm to bring the operated arm forward and up (flexion). Stretch and hold for 10 seconds, relax. Repeat 3 sets of 5.



#### 4. Pulley abduction

Set pulley up in the top of a doorway. Stand with your back to the door. With your good arm, pull down to lift the operated arm up to the side (abduction). Stretch and hold for 10 seconds. Relax. Repeat 3 sets of 5.



# 5. External rotation 45 degrees

Sit with your arm resting on a pillow or table. Use your good hand to rotate the operated arm outwards to the 45° position. Ensure you keep the elbow at your side. Hold for 30 seconds. Repeat x3.

## 6. Supine external rotation



Lie on your back with your upper arm out at 90 degrees. Allow the forearm to fall backwards with gravity into a "stop sign" position. You are aiming for 45°, not hand all the way to bed. Stretch and hold for 10 seconds. Relax. Repeat x5.

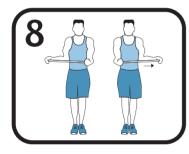
## 7. Side lying internal rotation



Lie on your side with the operated shoulder down. The upper arm is directly out from your body. The forearm acts as a lever and you can use your good arm to push the forearm towards the bed. Stretch and hold for 10 seconds. Repeat x5.

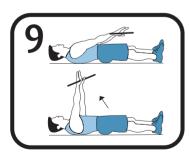
# **ACTIVE ASSISTED**

#### 8. External rotation - broomstick



Start with your operated arm pointing straight ahead, elbow held firmly against the side. Use a short length of broomstick in the opposite arm and push the stick horizontally to turn the operated arm outwards. Ensure that the elbow stays by your side or the stretch is lost. Aim for 45° external rotation. Hold for 10 seconds and then relax. Repeat x5.

# 9. Broomstick flexion - lying



Lying on your back, both hands hold a short piece of broomstick across the front of your thighs, your good arm assisting weak arm. Lift the arms straight up as far as possible. Hold for 10 seconds. Lower down. Repeat x5.

# **ACTIVE ASSISTED**



## 10. Walk fingers up wall - assisted flexion

Stand facing a wall and support your operated arm at the elbow with your fingertips on the wall. Walk your fingers up the wall until you feel the stretch. Hold for 10 seconds. Assist your arm to slide down the wall. Repeat x5.

# **GENERAL**



## 11. Walking





# STAGE FOUR

# WEEKS TEN TO TWELVE (DAYS 64 TO 84)

The stretching gets a bit more intensive at this stage and the target with external rotation is now sixty degrees or more.

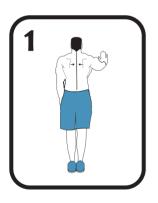
We also start some more significant strength work with isometric exercises.

#### Objectives by the end of this stage

- 1. At the three month mark, you should have near full range of motion. External rotation should be getting close to the same as the non-operated side.
- 2. Lifting to two kilograms.

# STAGE FOUR EXERCISES - WEEKS 10 TO 12

# **SCAPULA**



## 1. Wall push

Lightly push your straight arm into the wall and squeeze the shoulder blades together. Hold for 10 seconds. Repeat x3.

Repeat this drill with your arm at a higher point on the wall (above horizontal) and at a lower point on the wall (below horizontal).

# 2. Lying alphabets



Lying on your back, use the opposite arm to assist your arm into a vertical position. Write the letters of the alphabet from A to Z in the air.



#### 3. Roll ball on wall

Stand facing a wall and use your arm to push a light ball into the wall. Roll the ball in clockwise then anti-clockwise circles for 1 minute. Repeat.



## 4. Pulley flexion

Set the pulley up at the top of a door. Stand facing the door. Pull down with your good arm to bring the operated arm forward and up (flexion). Stretch and hold for 10 seconds, relax. Repeat 3 sets of 5.



#### 5. Pulley abduction

Set pulley up in the top of a doorway. Stand with your back to the door. With your good arm, pull down to lift the operated arm up to the side (abduction). Stretch and hold for 10 seconds. Relax. Repeat 3 sets of 5.



#### 6. Internal rotation stretch

Stand upright. Hold a towel in both hands behind your back. The lower hand is the shoulder being stretched. Use your good arm at the top to pull the affected arm up behind your back. Stretch and hold for 10 seconds. Relax. Repeat x3.



# 7. External rotation 60 degrees

Sit with your arm resting on a pillow or table. Use your good hand to rotate the other arm outwards. Ensure you keep the elbow at your side. Hold for 30 seconds. Repeat x3.



#### 8. External rotation stretch

Stand in a doorway with your elbow by your side, palm on the doorway. Use your good hand to hold the elbow firmly against the body as you twist the hips for a forceful rotation of the arm outwards. Stretch, hold for 10 seconds, and relax. Repeat x3.



## 9. Stretch posterior capsule

Standing, bring your arm across the body horizontally. Use the good hand over the elbow to push the arm closer to your chest. Hold for 10 seconds and relax. Repeat x3. Note – this is a very important shoulder stretch. Do it frequently.

# **ACTIVE ASSISTED**



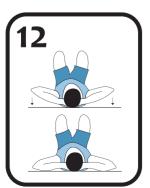
## 10. Walk fingers up wall - unassisted

Stand facing a wall. Start with your hand below horizontal. Walk the fingers up the wall as far as possible and hold the stretch at the top for 10 seconds. Lower your arm back to the starting position by dragging the fingers against the wall. Use as little resistance on the wall as possible to recruit deltoid muscle strength. Repeat x5.



# 11. Standing broomstick flexion

Start with your arms down, shoulder width apart holding a short length of broomstick. Raise both arms up as far as possible, stronger arm assisting weaker arm. Pause at the top and then lower back down. Repeat x5.



# 12. Butterfly exercise

Lie on your back, hands behind your head. Push the elbows down towards the bed as far as possible. Pause and lift the elbows up. Repeat 3 sets of 5.

# **ISOMETRICS**

Isometrics are a good way to start some strength work at this phase, if you have time to do additional exercise.



#### 1. Isometric flexion

Stand facing a wall. Push your fist forwards into the wall. Hold for 10 seconds. Repeat x3.



#### 2. Isometric extension

Stand with your back to a wall. Push your elbow backwards into the wall. Hold for 10 seconds. Repeat x3.



#### 3. Isometric abduction

Stand side on to a wall. Push the outside of your forearm against the wall. Hold for 10 seconds. Repeat x3.



#### 4. Isometric adduction

Use your elbow to hold a rolled up towel against your body. Squeeze for 10 seconds. Relax. Repeat x3.



#### 5. Isometric external rotation

Stand in an open doorway with the outside of your wrist against the frame. Keep your elbow by your side. Push the wrist outwards. Hold for 10 seconds, then relax. Repeat x3.



#### 6. Isometric internal rotation

Stand in an open doorway. Put your palm against the doorway and keep your elbow by your side. Push inwards for 10 seconds and relax. Repeat x3.

# STAGE FIVE

# WEEKS THIRTEEN TO SIXTEEN

The reconstruction will be very solid at this stage. The stretching program gets quite intensive now to make sure you are back to full range of motion. It is expected that at the end of the day there will be a minor restriction in external rotation. In order to stabilize the shoulder, it is necessary to tighten it up slightly. You may not regain full external rotation but the minor residual restriction should not impair shoulder function.

We can also build the strength work now with therabands.

Note that shoulder therabands progress by colour:

#### **Band Strengths**

Yellow - Easy

Red - Light

Green - Medium

Blue - Hard

#### Objectives by the end of this stage

- 1. Full range of motion apart from minor restriction in external rotation.
- 2. Return to moderate physical occupations.

# STAGE FIVE EXERCISES - WEEKS THIRTEEN TO SIXTEEN

# **STRETCHES**



## 1. Trapezius

Stand upright, take your uninjured arm over the top of your head and use it to pull your head to the side. Feel the stretch in the trapezius, hold for 10 seconds and relax. Repeat x3.



#### 2. Posterior deltoid/capsule

Standing, bring your arm across the body horizontally. Use the good hand over the elbow to push the arm closer to your chest. Hold for 10 seconds and relax. Repeat x3. Note – this is a very important shoulder stretch. Do it frequently.



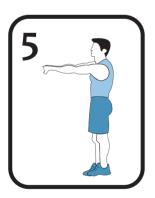
#### 3. Triceps

Lift your arm and then place your palm between the shoulder blades. Use your unaffected hand to pull the elbow to point directly at the ceiling. Hold for 10 seconds and then relax. Repeat x3.



#### 4. Lat dorsi

Interlock your hands and push the palms directly up towards the ceiling as far as possible. Hold for 10 seconds, then relax. Repeat x3.



#### 5. Rhomboids

Interlock your hands and push the palms out forward in front of you. Hold for 10 seconds, then relax. Repeat x3.



#### 6. Lower pecs

Interlock your hands behind your back. Lift the hands up away from your back, hold for 10 seconds and relax. Repeat x3.



#### 7. Stop sign

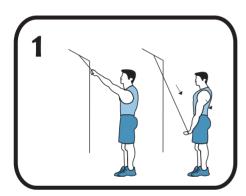
Attach the theraband to the top of a door, and stand with your back to the door. Place your hand in a stop sign position with the elbow bent 90 degrees. Push your hand horizontally forward until the arm is straight, pause and return to the start. Repeat x10.



#### 8. Doorway ER

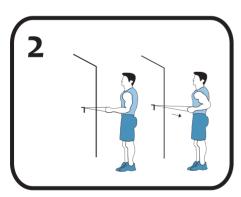
Stand in a doorway with your elbow by your side, palm on the doorway. Use your good hand to hold the elbow firmly against the body as you twist the hips for a forceful rotation of the arm outwards. Stretch, hold for 10 seconds, and relax. Repeat x3.

# STRENGTHEN - THERABANDS



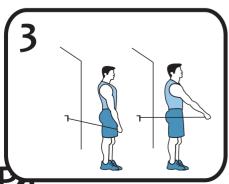
#### 1. Pull downs

Attach the band to an elevated point like the top of a door. Start by facing the attachment point with your arm outstretched. Keep the arm straight and pull down until your hand is at the front of your thigh, pause and return back up. Repeat x10.



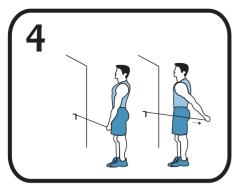
# 2. Theraband standing row

Attach the band to a door handle. Stand facing the attachment point with your hands outstretched, elbows at your side. Pull until your hands reach your belly button. Pause, then return to start position. Repeat x10.



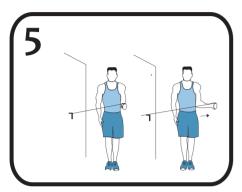
#### 3. Theraband flexion

Attach the band to a door handle. Stand with your back to the attachment point, hand by your side. With a straight arm, reach forward, coming almost to the horizontal position if possible. Pause and return to the start position. Repeat x10.



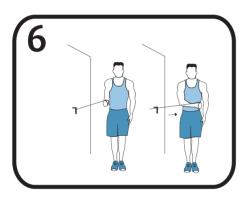
#### 4. Theraband extension

Attach the band to a door handle. Stand facing the attachment point with your hand by your side. Push a straight arm backwards as far as you can, pause, and return to start position. Repeat x10.



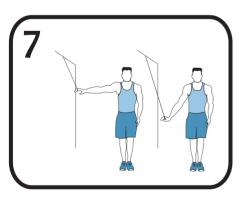
## 5. Theraband external rotation - "open the gate"

Stand side on to the door with your injured side away from the door. Hold the band with your elbow by your side and bent at 90 degrees. Rotate the arm outwards as if you are "opening the gate". Return to neutral. Repeat x10.



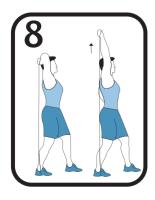
#### 6. Theraband internal rotation - "close the gate"

Attach the band to a door handle. Stand side on to the door with your injured shoulder closest to the door. Keep your elbow at the side and bent 90 degrees. From the straight-forward position, rotate the hand inwards towards your belly button. You pull the theraband across your body in a "closing the gate" motion. Return to neutral. Repeat x10.



#### 7. Theraband adduction

Attach the band to an elevated point like the top of a door. Stand side on. Start with the arm elevated. Keeping the arm straight, pull the hand down to your thigh. Pause and return back to the start position. Repeat x10.



## 8. Theraband triceps

Fix the theraband at the back of your heel. Hold the other end in one hand behind your head. Extend the elbow vertically until the arm is fully straight. Return to the start position. Repeat x10.



#### 9. Theraband biceps

Fix the theraband around your forefoot. Hold the band with your hand by your side. Start with your hand by your side. Bend the elbow as far as possible, pause and return to the start position. Repeat x10.

# STRENGTHEN - ACTIVE



#### 10. Overhead hand claps

Start with your hands by your sides. Lift the arms directly sideways into an overhead clap. Return to the start position. Repeat x10.



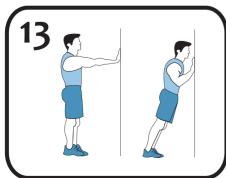
# 11. Empty can exercise

The start position is similar to emptying a can of soft drink. The thumb is pointing to the ground with the arm held out. The arm is neither directly sideways nor directly forwards, but approximately midway between these 2 points. Lift the arm up, pause then lower. Repeat x10. Do 3 sets.



# 12. Standing alphabets

Stand with your back against the wall, arm out horizontal. Set the scapula by pulling the shoulder blades together. Draw the letters of the alphabet in the air.



# 13. Wall push ups

Stand upright facing a wall, arms out straight against a wall. Bend the elbow and lean towards the wall until your nose touches the wall. Push back to vertical. Repeat x10.

# STAGE SIX

# WEEK SEVENTEEN ONWARDS

From four months post surgery we take on some serious strength building and a graduated return to sport. Contact sport training can start now.

The key elements of the program at this stage are:

- 1. Continue stage Five stretches.
- 2. Dumbbells can replace most of the theraband exercises.
- 3. The classic body weight exercises commence push-ups and triceps dips.
- 4. Compound theraband exercises and resisted abduction progress.

#### **Return to sport**

- Running
  - o 3 months
- Swimming
  - o Walking breaststroke 2 months
  - o Freestyle 3 months
- Football
  - o Training 3 to 4 months
  - o Competition 4 to 6 months
- Netball
  - o Training 3 to 4 months
  - o Competition 4 to 6 months

# Objectives by the end of this stage

Return to sport and manual occupations.

This will be somewhere between six and 12 months post surgery.

# STAGE SIX EXERCISES WEEKS THIRTEEN TO SIXTEEN

# **DUMBBELLS**



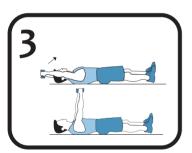
#### 1. Bent over rowing

Lean forward with your resting hand on a table or chair. Bend aggressively at the hips. Your arm hangs down holding the dumbbell. Raise your elbow up straight as high as you can, squeezing the shoulder blades together. Pause, then lower. Repeat x10.



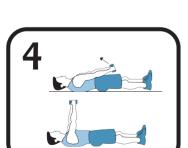
#### 2. Standing alphabets

Stand with your back against the wall. Set the shoulder blades by squeezing them together. Holding a light dumbbell with your arm out horizontal, draw the letters of the alphabet from A to Z. Or do small circles in both directions.



#### 3. Pull overs

Lying flat, hold a single dumbbell in both hands above your head. Keeping the arms straight. The arms "pull over" to a vertical position. Pause, then return to start. Repeat x10.



# 4. Lying flexion

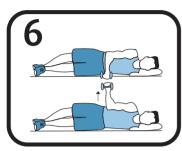
Lying on your back, hold a single dumbbell in 2 hands on the front of your thighs. Lift the arm straight up to a vertical position, pause then return to start. Repeat x10.



## 5. Standing flexion

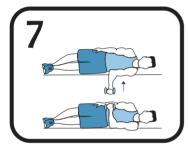
Start with your arms at the side holding a pair of dumbbells. Raise one arm forward with a straight elbow. Lift up until it is directly over your head. Pause then lower back to the start position. Repeat x10.



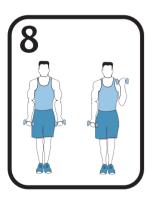


Lie on your side with the injured shoulder uppermost. Rest the dumbbell in front of you with elbow bent 90 degrees. Keeping the elbow at your side, rotate the arm outwards with an "open the gate" motion. Pause, then return to the start. Repeat x10.

#### 7. Internal rotation

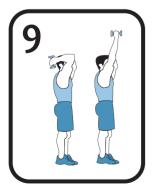


Lie on your side with the injured shoulder down. Rest the dumbbell in your hand with the elbow bent 90 degrees. Keeping the arm at your side, rotate the forearm upwards in a "close the gate" action. Pause at the top then lower back slowly. Repeat x10.



#### 8. Biceps

Stand with the arms by your side, dumbbell in each hand. Alternate arm curls bending at the elbow to bring the dumbbell up to your shoulder. Return to the start position. Repeat x10.



# 9. Triceps

Start with your hand holding a dumbbell behind your head. Support the elbow with your opposite hand if necessary. Straighten the elbow until the hand is directly above your head. Pause and return to the start position. Repeat x10. Progression: Triceps dips (12)



# **BODY WEIGHT EXERCISES**

#### 10. Push ups - knees



With your hands slightly wider than the shoulders, do a push up pivoting on the knees. Go as low to the ground as possible and keep knees, hips, shoulders and head aligned throughout. Return to the top. Repeat x10.

#### 11. Push ups - full



Start with your hands slightly wider than the shoulders, weight balanced on your toes. Keep your ankles, hips, shoulders and head aligned throughout the exercise. Lower your nose to the ground, pause and return up. Repeat x10.

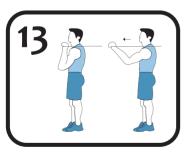
## 12. Triceps dips



Support your weight with your hands holding the leading edge of a chair or bench behind you. Feet out in front. Lower your bottom towards the ground as far as strength permits, pause and then push back up. As you get stronger, move the feet further away from the support. Repeat x10.

# COMPOUND THERABANDS

# 13. Theraband stop sign



Attach the theraband to the top of a door, and stand with your back to the door. Place your hand in a stop sign position with the elbow bent 90 degrees. Push your hand horizontally forward until the arm is straight, pause and return to the start. Repeat x10.



#### 14. Theraband D1 pattern

Secure the theraband around your forefoot. Stand with your arm down, theraband in the hand on the same side. Bring your arm diagonally across your body as far as possible, pause and return to the start. Repeat x10.



## 15. Theraband D2 pattern

Secure the theraband around your forefoot. Your opposite hand is by your side holding the theraband. Bring your arm up and out into the stop sign position. Pause and return to the start. Repeat x10.

# POST-OPERATIVE PROBLEMS

#### 1. Stiffness and frozen shoulder

There are two ways frozen shoulder can develop:

- Failure to get the shoulder moving early with the stretching exercises. It is critical that you undertake these exercises right from day one and that you progress them to an ever increasing range of motion. This is the commonest cause of frozen shoulder following surgery.
- Some people do all the right things and still get a frozen shoulder. There
  may be underlying biologic reasons why they have a tendency to form
  more scar tissue than others.

Frozen shoulder almost always resolves but can extend the recovery period from surgery. There are some things that can be done for frozen shoulder including cortisone injections into the shoulder joint starting three months post surgery.

#### 2. Tingling and numbness in the hand

There are several possible causes of temporary tingling and numbness in the hand and arm after surgery. Nerves to the arm may be irritated at the neck, or as they run under the collarbone (thoracic outlet syndrome), or due to swelling at the elbow or wrist (carpel tunnel syndrome). Compression at the elbow can also be caused by the sling. All of these things are usually temporary. Shoulder arthroscopy does not usually endanger any nerves. The main nerves to the arm are under the shoulder and the surgery is done on top of the shoulder.

# 3. Clicking or catching in the shoulder

Clicking can come from the scapular region or from the rotator cuff tendons. It generally resolves over an extended period of time as the shoulder strength returns. Painless clicking in the longer term does not require treatment.

# FREQUENTLY ASKED QUESTIONS

#### 1. When should I see an orthopaedic surgeon for a shoulder dislocation?

All patients diagnosed with a shoulder dislocation should be reviewed by an orthopaedic surgeon. It may be necessary to undertake further testing including an MRI scan to determine the extent of damage. In some cases, if surgery is required, it may be preferable to have the surgery sooner rather than later to achieve optimal results.

If non-surgical treatment is decided upon, alternative treatment options and rehabilitation will be discussed.

#### 2. If I don't have surgery, will further dislocations cause more damage?

Once you have had one shoulder dislocation, there is a substantial increase in the risk of further dislocations.

In general terms, it is not likely that further dislocations will cause more damage. However, the more often dislocations occur, the easier it is for them to happen. The level of instability can increase over time.

The risk of re-dislocation is influenced by age (the younger you are, the more likely it is to re-dislocate) and by sporting activities and work.

# 3. Can a shoulder dislocation heal without surgery?

Yes it is possible that after a single shoulder dislocation there may be no further episodes of dislocation. However, if you have had a second dislocation, then it is extremely likely that the shoulder will keep dislocating.

# 4. What rehabilitation do I require following shoulder stabilisation surgery?

You will be seen by the hospital physiotherapist one day after surgery and given exercises for the first week. This program outlines the rehabilitation exercises to be undertaken. It is desirable to have physio supervision on a fortnightly basis in the early months.

# 5. How long do I need to wear a sling?

A sling is worn for protection for the first six weeks. During the last two weeks it is allowable to take the sling off when around the house.

#### 6. How soon can I drive after surgery?

Driving is restricted for a period of six weeks. This is necessary to protect the reconstruction and also for legal reasons.

#### 7. When can I return to work after shoulder stabilisation surgery?

You can return to office and supervisory duties using the non-operated arm approximately seven to ten days after surgery. Light lifting up to half a kilogram is permitted six weeks after surgery. Moderate physical duties can resume three months after surgery. High demand physical occupations will resume somewhere between four and six months after surgery. The ability to do heavy work in an overhead position will improve for up to twelve months after surgery.

## 8. When can I play sport after a Latarjet procedure?

- Running
  - o 3 months
- Swimming
  - o Walking breaststroke 2 months
  - o Freestyle 3 months
- Football
  - o Training 3 to 4 months
  - o Competition 4 to 6 months
- Netball
  - o Training 3 to 4 months
  - o Competition 4 to 6 months

# SHOULDER TERMINOLOGY

**ABDUCTION** The action of lifting your arm up to the side

away from your body.

A movement initiated by your own muscles. This movement will build strength. **ACTIVE** 

**ADDUCTION** The action of moving your arm towards your

body from the side.

CONCENTRIC Contracting and shortening a muscle (the usual

form of exercise).

**EXCENTRIC** Contraction while lengthening a muscle (a con-

trolled release).

**EXTENSION** The action of moving your arm backwards be-

hind your body.

**EXTERNAL ROTATION** The action of rotating your arm and hand away

from your body outwards.

**FLEXION** The action of moving your arm forward away

from your body and up over your head.

INTERNAL ROTATION The action of rotating your hand towards your

body and then behind your back.

**ISOMETRIC** Contracting muscle without shortening it (ie. no

movement of the joint).

**PASSIVE** A movement initiated by external forces, a

stretching exercise.

**PRONE** Lying on your abdomen.

**RANGE OF MOTION** How far you can move a joint in any one direc-

tion (measured in degrees).

**SUPINE** Lying on your back.