Royal United Hospitals Bath
NHS Foundation Trust

Rotator cuff related shoulder pain

Physiotherapy Patient Information

This is a booklet designed to support intervention provided by the Physiotherapy Department at the Royal United Hospitals Bath Foundation Trust. It is not an exhaustive guide but contains information designed to support the management of your symptoms.

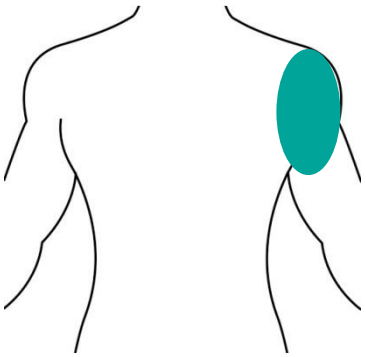
What is rotator cuff related shoulder pain?

- Pain arising from the group of four muscles around the shoulder known collectively as the 'rotator cuff'.
- It's an umbrella term for shoulder pain - Often other structures around the shoulder can be involved, but it's difficult to determine their relevance to pain as the changes seen to other structures on scans are also seen in the pain free population.
- In approximately 70% of all shoulder pain the rotator cuff is involved.

What are the symptoms?

- Pain in the upper arm (Figure 1)
- Can be a 'catching' pain.
- Pain with certain movements of the arm. In particular reaching forwards, above head height, out to the side and bringing your hand behind your back.
- Pain sleeping or lying on it.

Figure 1: Distribution of pain



Who gets it?

- Can affect people of all ages
- Men and women are equally affected.

How long will it take to improve?

- In approximately 50% of people, it will resolve in approximately 6 months through natural history alone, meaning the body will heal itself.
- The other 50% go on to have rehabilitation, and positively, they do well. Rehabilitation can take approximately 3-6 months to settle the pain.

What can I do to help my shoulder pain?

- Complete enough activity per week to meet recommended government guidelines (150 minutes of moderate intensity activity a week or 75 minutes of vigorous intensity activity a week-see appendix 1). Medical research demonstrates multiple significant health benefits from participating in regular exercise.
- Maintain a healthy weight. Being overweight has multiple health implications. For more information visit NHS: Health benefits of losing weight
- Discuss pain relief with a pharmacist or GP as required.
- Consider other strategies such as relaxation and mindfulness. .

Key Messages

- Hurt doesn't equal harm – this means that pain signals aren't a sign of damage they are more to do with protection and sensitivity.
- A painful shoulder often has a high sensitivity – be mindful of this when moving and exercising your shoulder.
- Pain is multifactorial and lots of thing impact it such as:
  - Poor sleep
  - High levels of stress
  - High BMI/Poor diet
  - High alcohol intake
  - Smoking
  - Low physical activity levels

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- Reconditioning your shoulder and building up its capacity to do all the tasks you need it to do is a key part of your rehabilitation.
- Striking a balance between respecting the sensitivity of your shoulder, but working hard enough to recondition your shoulder, is the key to successful rehabilitation.

How to decide how much activity is enough?

- You can score your pain out of 10, with 0 being no pain and 10 being the worst pain ever.
  - Don't let your pain exceed 4 out of 10
- Another way to think about it …
  - You can push into a tolerable amount of pain (whatever that is, you decide)
  - The pain should calm down within a few hours and shouldn't affect your sleep that evening.
  - If the pain impacts on your sleep and you still have elevated pain levels the next day, then it's likely you over did it. If this happens it is advised that you think about what and how much you did and aim to modify/reduce it to get the desired outcome. E.g. when you carry all the shopping bags in from the car in one go you get high levels of pain that keep you up all night. Next time you carry two bags in, this challenges the shoulder and is uncomfortable, but by the evening the pain has subsided.

Exercise Program Advice

- There are multiple exercises in this booklet, they are set out in levels:
  - Level one is the easiest variation of the exercise
  - Once able to complete the desired amount you move on to the next level
  - You do not need to complete the previous level as well as the current one
- The exercise program aims for 3 sets of the exercises, aiming to start at 5 repetitions and build up to 15 repetitions.
  - Repetition – completion of one of the exercises once
  - Set – completion of multiple repetitions
  - Holds – when you hold the position for a period of time
- If you can complete 3 sets of 15 repetitions on a level this is when you would move on to the next level.

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- Some of the exercises require holds – the aim is to still achieve the top amount of 3 sets of a 30 second hold.

How hard should I work?

- You can follow the advice given around the pain not disturbing sleep and calming by the next day initially.
- Another method is using the reps in reserve principle:
  - This is when you think about how more repetitions you could do until failure. Your aim is to only have 2-3 reps left before failure. E.g. you do 10 reps of exercise one; you feel like you could have done 5 more – this is too easy. Whereas, you do 12 reps of exercise one and you feel you could have done 2 more, that is the correct amount for you on this exercise.
  - You should aim to get to 3x15 repetitions and still feel like you could do 2-3 reps, that's when you know you have completed that level.

How often should I exercise?

- Minimum would be x3 sessions per week and at most x5 per sessions, this allows for adequate rest days which are important.
- A session should contain 1 - 4 of the main exercises.
  - You can do different exercises on different days
    e.g., Monday = exercise 1 + 3, Wednesday = exercise 2 + 4
  - You could do all the exercises on each day, there is lots of variety available
  - You may start with just one exercise, and slowly you add more in over time

Progressions and Regressions

- These exercises range in difficulty and naturally you may find yourself moving up and down between the levels. What you are looking for is an overall trend towards an increase in the amount you can do by doing more exercise.
- It's natural for your pain to fluctuate, so if one day you are on level 3 of an exercise but due to pain you need to go down to level 2 this is perfectly acceptable.
- If you feel you are ready to progress, but the next level up is too much, you can continue to work at the current level but make that level more challenging by:

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  - Slowing down the movement
  - Increasing the weight used at that level
  - Take less rest between the sets
- If you feel you are working at a level but don't want to regress down a level, you can make modifications to make the level more tolerable:
  - Reduce the amount of repetitions
  - Reduce the amount of load/weight
  - Reduce the range of motion

Equipment for the exercises

- Ideally some small weight (dumbbells/kettlebells)
- Bag for life – filled to a challenging weight
- Range of bottles of water 1000ml = 1kg
- A flat stable surface (floor) +/- a mat

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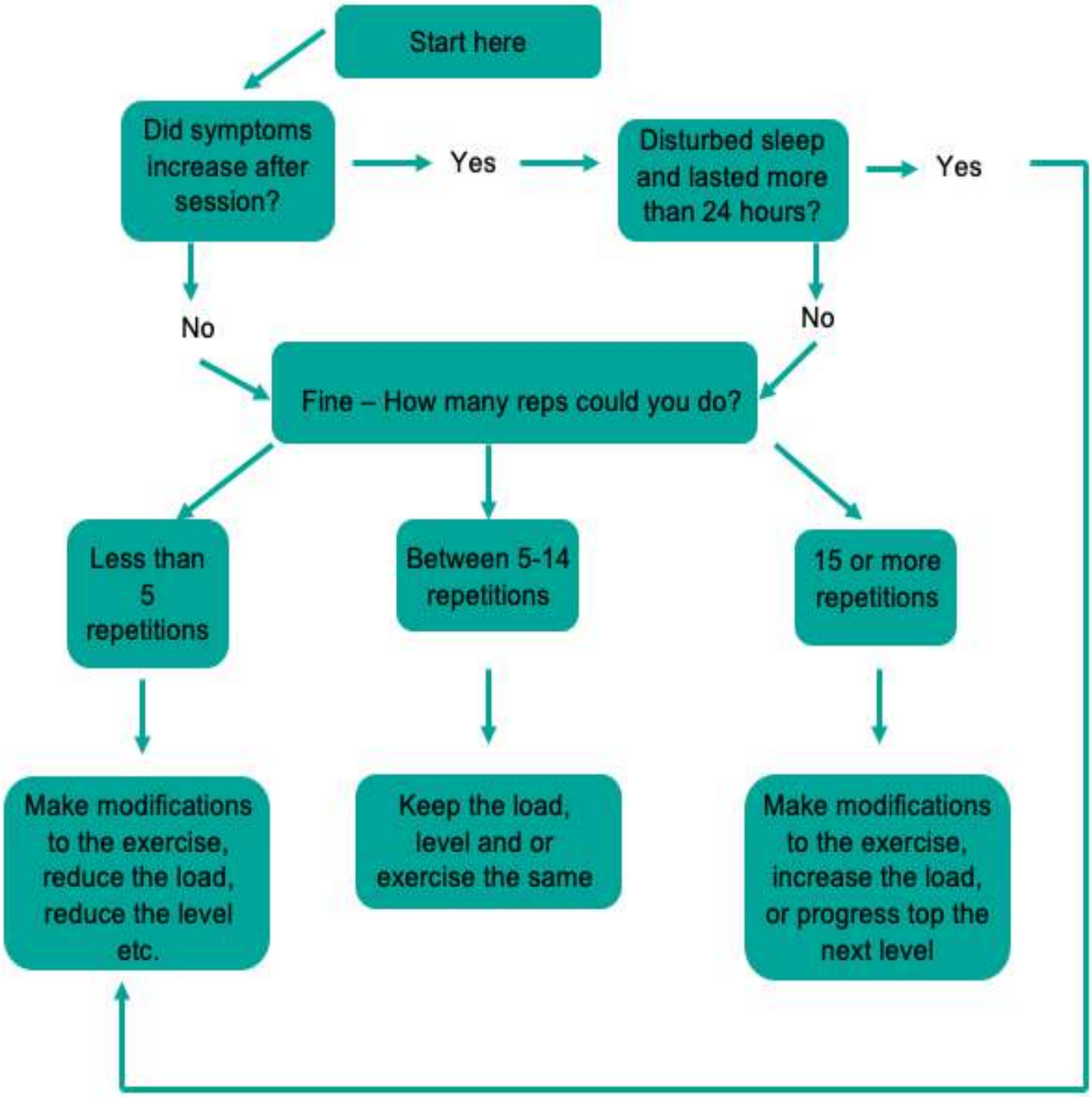
Exercise programme flowchart



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Exercise one

Level one Video link

Start on your hands and knees. Transfer your weight from side to side and forwards and backwards.

Level two Video link

Start on your hands and knees. Bring one leg behind and upwards. Repeat with the other leg.

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Level three Video link

Start on your hands and knees. Raise one arm up and in front of you as far as comfortable. Repeat with the other arm.

Level four Video link

Start on your hands and knees. Raise opposite arms and legs as far as comfortable.

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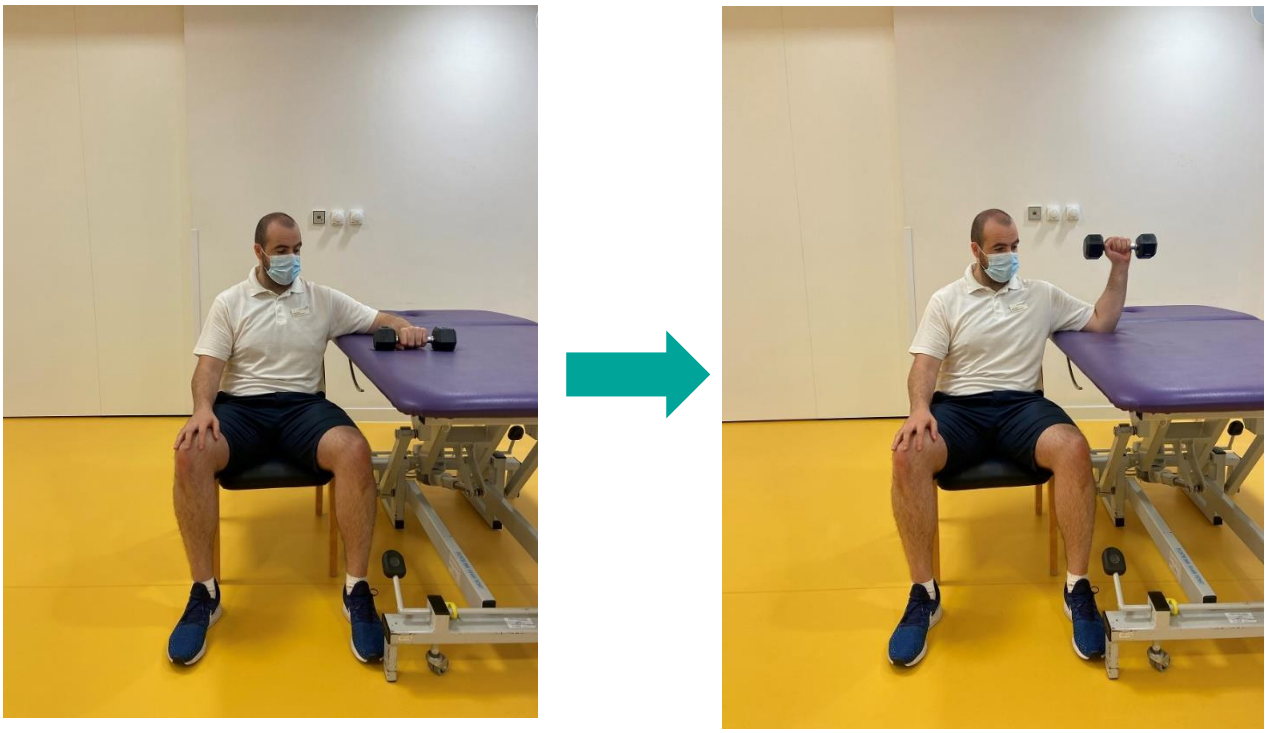
Exercise two

Level one Video link



Sit with your arm supported, with a weight in your hand. Raise the arm away from the surface as far as comfortable.

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Level two [Video link]

Start lying on your back with your arms by your side and a weight in your hand. Raise your arm up and over your head as far as comfortable. Slowly lower back down to your side.

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Level three Video link

Standing with the weight at shoulder height. Raise the arm to the sky as far as comfortable. Slowly lower to the starting position.

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Level four Video link

Stand with weights in both hands, arms by your side. Bring the weights to your shoulders as you bring your foot to the step. Raise your arms to the ceiling as you step up. Slowly lower arms back to your side as you step off the step.

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Exercise three

Level one

Stand with your arms in a doorway. Push against the doorframe with your arms.

Level two Video link

Start with your arm by your side with your elbow bent, with a weight in your hand. Keeping your elbow bent, raise your arm away from your side as far as comfortable. Slowly lower to the starting position.

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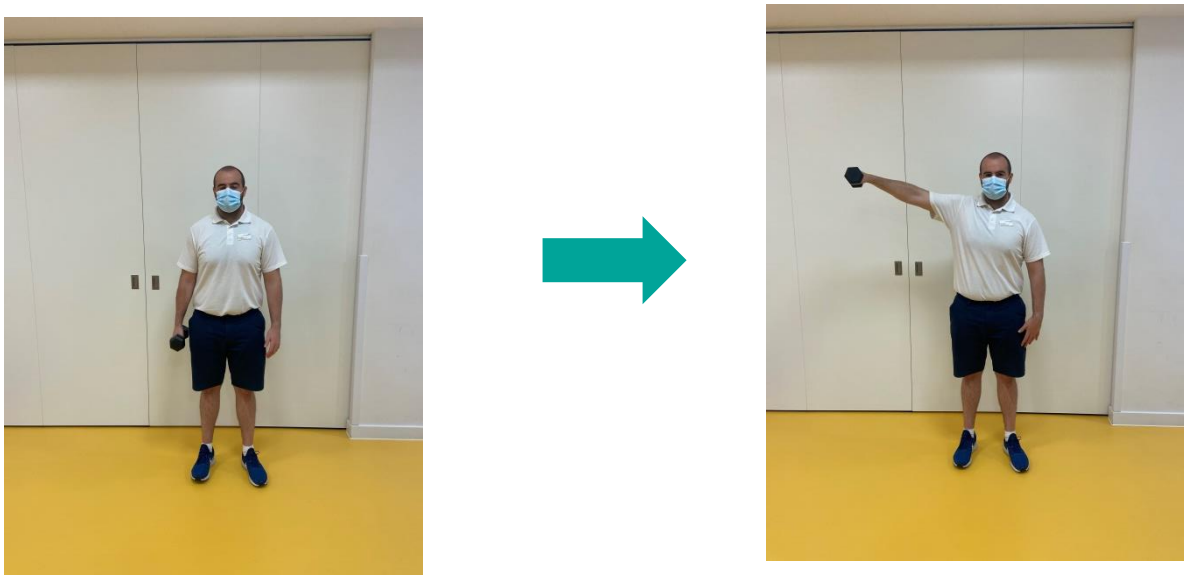
Level three Video link



Standing with your arm by your side holding a weight. Raise your arm to the side as far as comfortable. Slowly lower to the starting position.

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Level four Video link

Stand with weights in both hands at shoulder height. Squat down as low as comfortable. As you stand, raise your arms to the ceiling.

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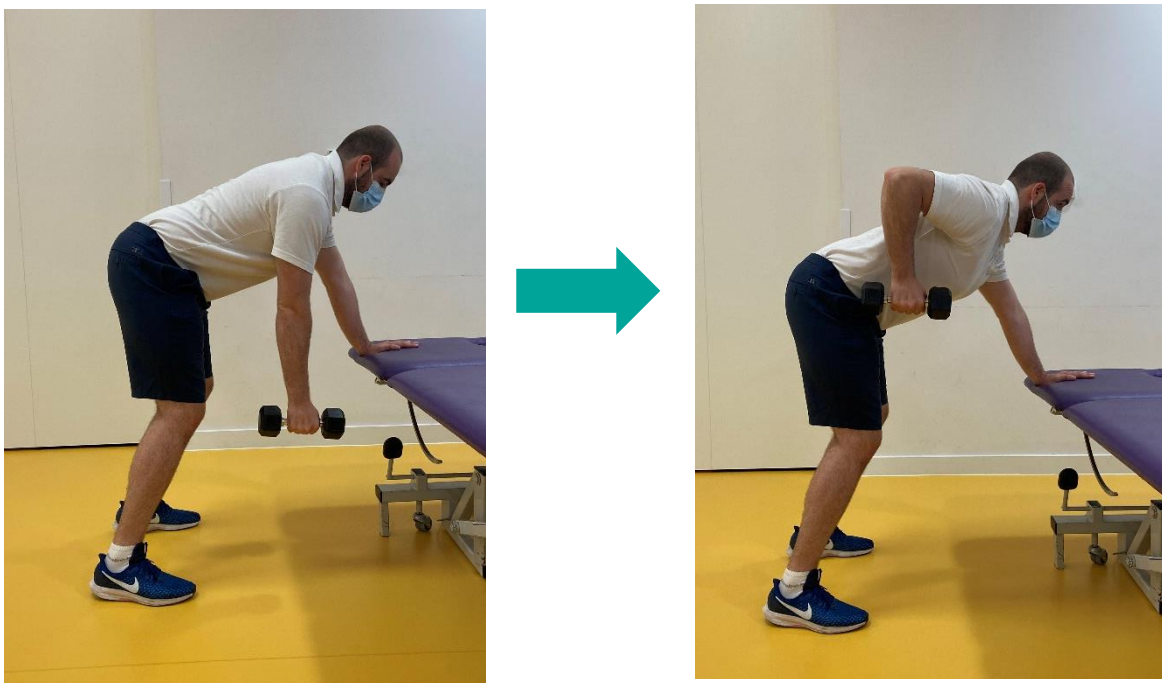
Exercise four Video link



Lean forward supporting your body weight with one arm whilst holding a weight in the other hand. Raise the weight away from the floor bending your elbow.

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Exercise tracker

	Exercise number									
	1		2		3		4		5	
	Level	Reps	Level	Reps	Level	Reps	Level	Reps	Level	Reps
Monday										
Tuesday										
Wednesday										
Thursday										
Friday										
Saturday										
Sunday										

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Appendix 1

What is moderate intensity activity?

Any activity which increases your heart rate to a level where you can talk but not sing! For example:

- Brisk walking
- Walking uphill
- Dancing
- Cycling

What is vigorous intensity activity?

Any activity which increases your heart rate to a level where you can only say a few words before pausing for a breath. For example:

- Running
- Cycling uphill

For more information visit NHS exercise guidelines

For further information:

Contact: ruh-tr.therapiesoutpatientadmin@nhs.net

Brownsword Therapies Centre (F1)

Royal United Hospitals Bath NHS Foundation Trust
Combe Park, Bath BA1 3NG
01225 821241

www.ruh.nhs.uk/physiotherapy

Please contact the Patient Advice and Liaison Service (PALS) if you require this leaflet in a different format, or would like to feedback your experience of the hospital. Email ruh-tr.pals@nhs.net or telephone 01225 825656 / 826319.

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