

# Exercising at Home

## **Safety**

Here are some examples of different types of exercise that can help you manage your axial SpA (AS) and maintain your general health and fitness. When starting a new exercise, it's important to start slowly and gradually build up over time. Speak to a physiotherapist for a tailored exercise plan and to ensure these exercises are suitable for you.

## **Aerobic Exercises**

### ***Brisk walking***

Walk briskly up and down a corridor or around a large room. Swing your arms as you walk to get your shoulders moving and your heart rate up.

Do this for up to a minute at a time to begin with. You can increase the time gradually as your stamina increases.

### ***Marching on the spot***

If you don't have much room in the house, march on the spot to help raise your heart rate. Bring your knees as high as comfortable and swing your arms to make this exercise stronger.

Do this for up to a minute at a time to begin with. You can increase the time gradually as your stamina improves.

### ***Up and down stairs***

Once or twice a day, walk or jog up and down the stairs for a minute at a time. Use a handrail if you need. This is a great aerobic exercise, but it will also strengthen the muscles in your legs.

### ***Star jumps (jumping jacks)***

While you're waiting for the kettle to boil, do ten star jumps! To challenge yourself, gradually increase the number you do each time by two.

## **Mobility/Flexibility Exercises**

### ***Seated neck and back movements***

1. Gently tilt your neck and back to the left and reach your left hand down to the floor. Return to the centre before reaching the right hand down to the floor on your right side
2. Gently look to the left, and then slowly twist your body around to follow the movement as far as comfortable. Return to the centre before repeating to the right side
3. As you exhale, look down towards the floor and gently slump your back. Inhale as you return to sitting comfortably
4. Gently look up towards the ceiling and slowly arch your back to bring your chest bone (sternum) towards the ceiling. Relax back to sitting comfortably. (Stop this exercise if the stretch feels too strong or if you feel dizzy)

### ***Cat stretch***

1. Kneel on all fours, with your knees in line under your hips and your hands in line under your shoulders (you can kneel on a folded blanket if it's more comfortable)
2. As you take a deep breath in, gently look up towards the ceiling and arch your back (bringing your stomach towards the floor)
3. As you breathe out, look down to the floor and arch your back the other way, while contracting your stomach muscles
4. Slowly repeat 3 times each way

### ***Cat stretch against a wall***

1. This is a modified version of the floor-based cat stretch. Stand facing a wall and place your palms against the wall, around shoulder height
2. Breathe in to prepare
3. As you breathe out, slowly look down towards the floor and slump your back slightly
4. Then breathe in and gently look up towards the ceiling and arch your back the other way (moving your chest towards the wall)
5. Repeat up to five times if comfortable

You can make this exercise stronger by holding each position for a couple of breaths. Stop if it causes any pain or discomfort.

## ***Rib movements (breathing exercises)***

### ***Abdominal (belly) breathing***

1. Either lie on your back with your knees bent and feet flat on the bed, or sit in a relaxed and comfortable position
2. Place the palm of one hand on your sternum (chest bone) and the other on your belly button
3. The aim is to only move the hand over your belly button, the hand over your chest bone should stay still
4. As you take a deep breath in, try to breathe all the way down to the bottom of your lungs, so your belly hand moves outwards
5. As you breathe out, the hand over your belly should move in towards your spine
6. Repeat for up to 10 breaths
7. As you do this more frequently, you can increase the number of repetitions you do

### ***Wine glass arms (this can be done sitting or standing):***

1. As you take a deep breath in, raise your arms out to the side and over your head (in a wine glass shape)
2. As you breathe out, relax your arms down by your side
3. Repeat 5 times. Gradually increase the repetitions as much as comfortable

### ***Breath focus (this is a particularly relaxing breathing exercise):***

1. Sit down comfortably or lie on your back with your knees bent and feet flat on the bed
2. Notice your breathing, while not changing it at all. Count five breaths
3. Now try to breathe deeply for five breaths, feeling your belly lift as you breathe down into the bottom of your lungs
4. Next, breathe normally for five breaths and notice how it feels compared to the deep breathing
5. Repeat both sets three times in total, or for as long as comfortable

## ***Hips***

### ***Leg swings (flexion/extension)***

1. Stand on your left leg, keeping your back upright and head facing forward and use a table/back of chair for support
2. Gently swing your right leg forward as far as comfortable, then back as far as comfortable
3. Repeat three times
4. Repeat on the opposite leg

### ***Leg swings (adduction/abduction)***

1. Stand on your left leg, keeping your back upright and head facing forward and use a table/back of chair for support
2. Raise your right leg off the ground slightly and swing it across your body (to the left)
3. Gently swing it out to the right side, away from your body as far as comfortable
4. Repeat three times
5. Repeat on the opposite leg

### ***Knee hugs (hip flexion)***

1. Stand on your left leg, holding onto something for support
2. Slowly lift your right knee up towards your chest
3. Use your hand on the back of your right thigh or front of your knee to gently hug your knee towards your chest
4. Relax the leg back down, then repeat on the opposite side

### ***Lunge (hip extension)***

1. Standing comfortably, step your right leg behind you and ensure both your feet are pointing forward
2. Use a table or back of chair for support if needed
3. Gently bend your left knee, to lean into a lunge position
4. Ensure your right knee remains straight
5. Keeping your body upright, gently push your hips and pelvis forwards
6. You should feel a stretch at the front of your right hip and the back of your right calf
7. Hold for three breaths, then repeat on the opposite side

### ***Seated hip rotations (internal and external)***

1. Sit comfortably on a chair, with both feet on the ground
2. Gently let your right hip relax, so your right knee rolls out to the side
3. Hold for up to three breaths
4. Gently rotate your hip in the opposite direction, so your right knee rolls inwards (you may need to move your left leg over to allow room)
5. Hold for three breaths
6. Repeat the same movements with the left leg

### ***Seated knee hugs***

1. Sitting with your back supported, gently raise your right leg towards you and bend your knee
2. Use your hands wrapped around your knee or behind your thigh to hug your knee towards your chest
3. Hold for up to three breaths, then relax your leg down
4. Repeat with the left leg

### ***Lying knee rolling (hip rotations)***

1. Lie on your back on an exercise mat or bed
2. Gently bend your knees and place your feet flat on the mat/bed
3. Keeping your knees together and feet together, gently relax your knees over to the right side to create a rotation through your hips
4. Only go as far as comfortable, you can place a cushion under your knees to support them for two breaths
5. Bring your knees back to the centre, then repeat to the left
6. Repeat three times each side

This exercise will rotate your low back, so stop if it causes any back pain and use the seated hip rotations (above)

### ***Knee hugs***

1. Lie on your back on an exercise mat or bed
2. Bend both your knees and place your feet flat on the mat/bed
3. Gently raise your right knee towards your chest
4. Use your hands on your right knee or behind your right thigh to gently hug your knee towards your chest
5. Hold for up to three breaths
6. Relax your leg back down and repeat on the opposite side

This exercise will stretch your low back, so stop if it causes any back pain and use the seated knee hugs (above)

### ***Shoulders***

1. Do these exercises while sitting comfortably
2. While inhaling, shrug both your shoulders up towards your ears. As you exhale, relax your shoulders down. Repeat two more times
3. Roll your shoulders forwards in circles three times, then repeat in the other direction three times
4. While sitting or standing, gently stretch one arm out to the side and behind you to feel a stretch at the front of your shoulder and chest. Repeat on the opposite side. (To make this stronger, you can do both arms at the same time, but build up to this gradually)

## **Strength Exercises**

### ***Free weights/tinned food***

Using light dumbbells or tins of food, you can do...

#### ***Biceps curls:***

1. Hold the weight in your hand with your arms relaxed by your side and palms facing forward
2. Gently bend your elbow to bring your hand up towards you, then straighten back down again
3. Repeat 3 times on each side

Be sure to keep your elbows tucked in to your sides. Gradually increase the number of repetitions as this exercise becomes easier. This exercise will help strengthen the arm muscles.

#### ***Shoulder shrugs:***

1. Hold the weights in your hands with your arms relaxed by your side
2. Gently shrug your shoulders up towards your ears, then relax down again
3. Repeat up to six times

This exercise will help strengthen the shoulder and neck muscles.

#### ***Shoulder strengthening:***

1. Hold the weights in your hands with your elbows bent to about 90 degrees and tucked in towards your side
2. Gently pull your arms backwards (like you're rowing a boat), then return to the starting position
3. Repeat about six times.

This exercise will help strengthen the muscles around the shoulder and back of the arm.

#### ***Squats***

Use a chair with arms to push up on when you first do this exercise. Gradually progress to not using your arms as your strength improves.

1. Sit on a chair with your feet on the floor, about hip width apart
2. Gently putting your weight into your feet, slowly push up into a standing position
3. Try not to lean your body forwards too much
4. Slowly bend your knees while keeping your back upright, to sit back down in a controlled manner
5. Repeat three times

### ***Wall press ups***

1. Stand facing a wall with your feet about hip width apart
2. Place your palms against the wall, about shoulder height
3. Tense your abdomen slightly and keep looking forward
4. Slowly bend your elbows to move your body towards the wall
5. Hold for one breath, then slowly push back to the start position
6. Repeat 6 times in total, up to 2 times daily.

### ***Bridging***

This is a strong strengthening exercise and will work the muscles around the hips and spine. Stop this exercise if it causes any back pain during or afterwards. It's not appropriate if you have fusions in your low back or have been advised not to do similar exercises.

1. Lie on your back, bend both your knees and place your feet on the floor about hip width apart
2. Place your arms on the floor beside your body, palms facing down, to help with balance
3. Gently tense your stomach muscles to push your low back into the floor
4. Lift your pelvis off the floor until your knees, hips and shoulders form a straight line
5. Hold for two breaths, then slowly relax down to the start position
6. Repeat three times

### ***Four point kneeling***

1. Kneel on an exercise mat on all fours, so your hands are lined up under your shoulders and your knees are under your hips
2. Keep your neck neutral (not arching up or dropping down)
3. Gently tense your stomach muscles, then slowly lift one hand about 1cm off the mat, while maintaining your balance
4. Place your hand  
back down, then repeat with the other hand and each  
knee in turn
5. Repeat 2 times per limb in total, up to 2 times daily

Advanced: To make this exercise stronger, once you lift your hand off the floor, try to stretch your arm out in front of you. For your knee, try to stretch the leg out behind you. The emphasis is on keeping the movements slow and controlled.

## **Balance Exercises**

### ***One leg stand***

1. Stand facing a counter or table, with your hands placed on top for balance and support
2. Gradually shift your weight onto your left leg and slowly bend your right knee to bring your foot off the floor
3. Try to hold this position, keeping balanced, for up to one minute
4. Repeat on the other side
5. Gradually over time, try to use the counter less and only when needed to do this exercise safely

### ***Toe taps***

1. Stand beside a counter or table, placing a hand on for support
2. Gradually shift your weight onto your left leg, then lift your right leg off the floor slightly
3. Move your right leg across your body to tap your toe on the floor to your left, then place your right leg down
4. Repeat on the other side, do this 10 times total (5 each side)

### ***Tiptoe standing***

1. Stand facing a counter or table, with your hands placed on top for balance and support
2. Gradually shift your weight forwards and rise up to stand on your tip toes
3. Hold this position for up to 30 seconds
4. Slowly lower back down
5. Gradually over time, try to use the counter less and only when needed to do this exercise safely