

*Better
Together*

Patient information

Exercise and Alkaptonuria

Therapies Directorate

Exercise can help keep your joints supple, as well as build and maintain muscle strength, which over time will help to improve general function. Additionally regular exercise and activity can help improve cardio-vascular fitness, maintain a healthy weight and control pain and stiffness in the joints associated with Alkaptonuria.

Furthermore, exercise can help reduce or prevent joint deformity. Research shows physical activity can improve and maintain self-esteem, body image, mood, sleep, quality of life and overall exercise tolerance. Physical activity can also help to manage fatigue and reduce your risk of stress and depression.

Exercise is any physical activity which makes your body use more energy than it normally would, makes you breathe a bit harder and your heart beat faster. Try to find physical activities which you enjoy such as yoga, Pilates, swimming, aqua- aerobics, cycling or walking. This could also include gardening, dancing or activities with children or grandchildren. We advise you to avoid exercise that puts additional strain on joints, such as contact sports.

Your General Practitioner (GP) or practice Nurse may be able to refer you to an exercise on prescription programme locally to you. You can find information about the **Change for Life** programme, which helps individuals make small, sustainable yet significant improvements to their diet and activity levels, is available online: www.nhs.uk/change4life

Relaxation is also important, aim to achieve a balance between activities and rest.

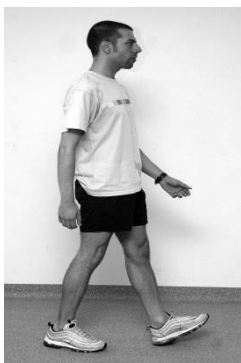
Your physiotherapist can advise and teach specific exercises and relaxation techniques most suited to you.

The following exercises are suitable for people with Alkaptonuria:

Warm-Up

This is to prepare you for exercise by increasing your body temperature, flexibility and heart rate.

Walking / cycling / step ups: **five minutes**



Stretching Exercises



Hamstrings

Stand in front of a step or stair (about 8 inches away from the step), place heel on step. Try to push your knee back until your leg is straight. **Hold for ten seconds.** If this is comfortable the exercise can be progressed by bending forwards until the muscles at the back of the thigh feel tight.

Repeat times.



Thigh

Standing with support for balance, keeping the thigh straight, bend your knee as far as possible. **Hold for ten seconds** and lower. The exercises should be performed slowly so that you are able to maintain good control at all times.

Repeattimes.



Calf

Stand with your feet hip width apart with your hands on a firm surface. Take a step back with one of your legs. Take most of your weight on the leading foot. Gradually take your weight back to the back foot stretching your heel flat to the floor (keeping your knee straight). **Hold for ten seconds.**

Repeattimes



Inner thigh

Stand with your legs apart and feet facing forwards, with hand on a firm surface. Lean across to one side by bending that knee, keep the other knee straight. **Hold for ten seconds.** You should feel a stretch in your inner thigh/groin.

Repeat.....times

Mobilising/strengthening exercises

Lumbar spine



Knee rolls:

Lie on your back with your knees bent. Roll Knees from side to side (keep arms out to side)

Repeat times

Thoracic spine



Side bends:

Standing with your feet shoulder width apart. arms held up in the air, bend sideways from the waist.

Repeattimes



Upper back Rotations:

In sitting position. Arms across chest. Slowly twist your body to the right/left and **hold for ten seconds**

Repeat.....times



Neck rotations:

Sitting up tall. Turn your head to the Right / left until you feel a stretch. **Hold forseconds.**

Repeat.....times



Neck side bends:

Sitting up tall. Tilt your head towards the right/left shoulder until you feel a stretch. **Hold for seconds.**

Repeat times



Neck extensions:

Sitting up tall. Bend your head backwards as far as comfortable. **Hold for seconds.**

Repeat..... times



Chin Tuck:

Pull your chin in, keeping your neck and back straight. Hold at the end position and feel the stretch in your neck. If symptoms are not aggravated repeat this movement and carefully push your chin further backwards. Hold for a moment and feel the stretch in your neck. **Hold for seconds.**

Repeattimes

Shoulder Exercises:



Hand behind back

Reach behind your back, try to touch your hands together. Now relax your arms.

Repeattimes



Hand behind head

Touch your hands to the back of your head, try to keep your elbows out. Now relax your arms

Repeattimes

Wall slides



Stand facing the wall with palms of your hands in contact. Now gently push into the wall keeping nice upright posture and gently slide your hands up the wall. This must not hurt. Relax and return to start position.

If you cannot achieve full movement just work in the pain free range. Sometimes patients find it easier to use a dishcloth or sock to decrease the resistance.

Repeattimes



Gluteal strengthening

Lying on your side. Keep your hips in line with the rest of your body and raise your upper leg no more than 45 degrees/ 30 cm, keeping your heels in contact with each other. **Hold for five to ten seconds** then lower.

Repeat.....times



Bridging

Lie on your back with knees bent. Tighten stomach and bottom muscles. Lift your bottom up slowly. **Hold for five to ten seconds**

Repeattimes



Core stability exercise - 'superman'

On all fours. Tighten stomach and bottom muscles. Lift hip backwards keeping leg straight. To progress exercise, lift opposite arm into the air. **Hold for five to ten seconds.**

Repeat times



Quadriceps strengthening

Sit on a chair with your thighs supported. Straighten your knee as far as possible, keeping your thigh still. **Hold five to ten seconds** then slowly lower your leg.

Repeattimes

You can progress this by adding an ankle Weight.



Sit to stand

In sitting, cross your arms across your chest. Stand up and slowly sit down to make contact with the seat.

You can make this easier by using your hands

Repeat as many times as you can



Knee bends:

Stand with your feet hip width apart and your toes slightly turned out.

Slowly bend your knees over your toes keeping your heels on the floor.

Return to starting position.

Repeat as many times as you can



Step ups

Lead up onto step with affected leg and follow with other leg.

Step down with non-affected leg and follow with affected leg. Return to start position.

Repeat as many times as you can

Energy conservation

Energy conservation is one way to help you lead a more active lifestyle. It is a way of saving your energy for activities that are important to you and ensuring it is used effectively when it is needed.

Aims of energy conservation:

- More energy to do enjoyable important tasks.
- Reduce your joint pain and stiffness.
- Reduce your tiredness.
- Improve your quality of life.

How can you save energy?

- Make sure you have a balance between work and rest. Take regular breaks, especially during long tasks. Try to take 5 minutes rest, every 20-30 minutes (**pace**).
- Try to plan your tasks as much as possible. Try not to do all your tiring tasks at once (**plan**).
- Ask a friend or relative to do the more tiring tasks, leaving you to do the tasks you enjoy (**prioritise/delegate**).
- **Try making tasks simpler by:**
 - Having any item you need to complete a task within easy reach
 - Try to do tasks such as ironing sitting down (make sure your seat or chair is comfortable and easy to get on/off e.g. perching stool).
 - Avoid tasks that can't be stopped easily if your joints hurt a lot.

SMART goal setting

Setting yourself goals will help you accomplish tasks that are important to you.

These should be:

- ❖ **Specific**- What is it you want to achieve? Why do you want to accomplish this?
- ❖ **Measurable**- How will you know when you have achieved it?
- ❖ **Achievable** - Is it possible? Do you the necessary resources to achieve your goal?
- ❖ **Realistic**- What is the reason and purpose? Is it realistic for you at this time?
- ❖ **Timely**- When will you complete this by? Have you set a timescale?

Your goals can be anything you want them to be and most of all they should be enjoyable and functional.

Remember not to change the goal until you can achieve it comfortably and progress at a slow pace.

If you are finding things too difficult, re-evaluate your progress and alter your plan.

Joint protection

Joints commonly affected by Alkaptonuria are the hips, knees, shoulders and spine. Over time Alkaptonuria may lead to reduced joint mobility and muscle strength.

What does joint protection aim to do?

- To reduce stress on affected joints and decrease pain.
- To show you better ways of doing things so that you can take care of your joints.
- To keep you as active and independent as possible

So how do I protect my joints?

❖ Weight

Maintaining a healthy weight can help reduce the stress on your joints.

❖ Balance rest and work

This means altering how you tackle everything. Sit down to do jobs where possible, such as ironing or food preparation. Perch on a high kitchen stool or sit at a table.

❖ Where possible, distribute the strain over several joints.

Use both hands/arms when lifting or carrying an object. You could use the palms of your hands under a plate or cup instead of taking all the weight through your fingers. Using lightweight everyday objects, e.g. lightweight cutlery and appliances; can help reduce strain on your joints.

❖ Avoid staying in one position for too long

This can cause joints to stiffen and become painful. You should change positions as often as possible so you can protect your joints.

❖ Ensure good posture

- **In sitting:** Your buttocks should be at the back of the chair, your back straight and shoulders back. Your knees should be bent at right angles and at the same height as your hips. Feet should be flat on the floor.
- **In standing:** Keep your shoulders back, chest forwards and knees straight. Your pelvis should not tilt and feet should be supported by shoes.
- **When lifting:** Bend at your knees and your hips, keeping your back straight and reach towards the object. Never bend from your waist, when your knees are straight. You could also use a 'helping hand' to pick up objects from the floor.

Further information

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All Trust approved information is available on request in alternative formats, including other languages, easy read, large print, audio, Braille, moon and electronically.

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