"Instructors need to be mindful of 'repetitive movements' because, after time, these can become painful; I can't walk properly for more than half an hour"

– Alison Bailey

Practical exercise advice for arthritis

There's a growing body of research to support exercise programmes for arthritis sufferers. What does this look like in practice? **Olivia Hubbard** investigates.

The word arthritis is used to describe pain, swelling and stiffness in a joint or joint(s), explains consultant rheumatologist and clinical advisor for Versus Arthritis, Professor Anisur Rahman. What is key to pinpoint is that arthritis isn't a single condition and there are several different types. "Around 10 million people in the UK are thought to have arthritis; it can affect people of all ages – even children and teenagers. The symptoms can vary from day to day, however, with the right treatment and approach, and with exercise intervention, symptoms can be managed," said Professor Rahman.

Osteoarthritis (OA) and rheumatoid arthritis (RA) are the most common types – with an estimated 8.75 million people in the UK visiting their doctor to seek help for OA. While OA is the degeneration of joint cartilage and of the underlying bone, RA is inflammatory and is an auto-immune condition. Women aged 45 years and over are said to be more likely to experience osteoarthritis, while rheumatoid arthritis can affect adults of any age and is especially common among those between 40 and 60 years of age.

The most common misconceptions about arthritis are that it's just a bit of pain, something that only affects older people, or is just an inevitable part of ageing. The reality is that arthritis can stop you being able to work, be intimate, move freely, or just be yourself.

While it might be difficult to move with arthritis or it may seem like it might make the condition worse, exercise is one of the best things you can do to improve your symptoms. Since there are different types, PTs looking to help arthritic patients are advised to become familiar with the current research and the existing, evidence-based exercise guidelines[1].

In relation to recent research advancements, Adrienne Skelton, director of policy, health and social care improvement at Versus Arthritis, said, "Research has highlighted the important role that exercise can play in reducing pain and increasing function in people with OA. We supported Professor Mike Hurley at St George's, University of London, to develop an exercise intervention programme called 'Enabling Self-management and Coping with Arthritis Pain through Exercise' – or ESCAPE-pain. ESCAPE-pain is a six-week programme of integrated exercise and self-management delivered in a group setting by a physiotherapist. It has been shown to reduce pain, improve physical function, increase quality of life and general well-being, and reduce the use of healthcare services and medication. The Health Innovation Network provides the training, resources and support to implement ESCAPE-pain, and the programme is being successfully rolled out across the UK. Find out more at: escape-pain.org

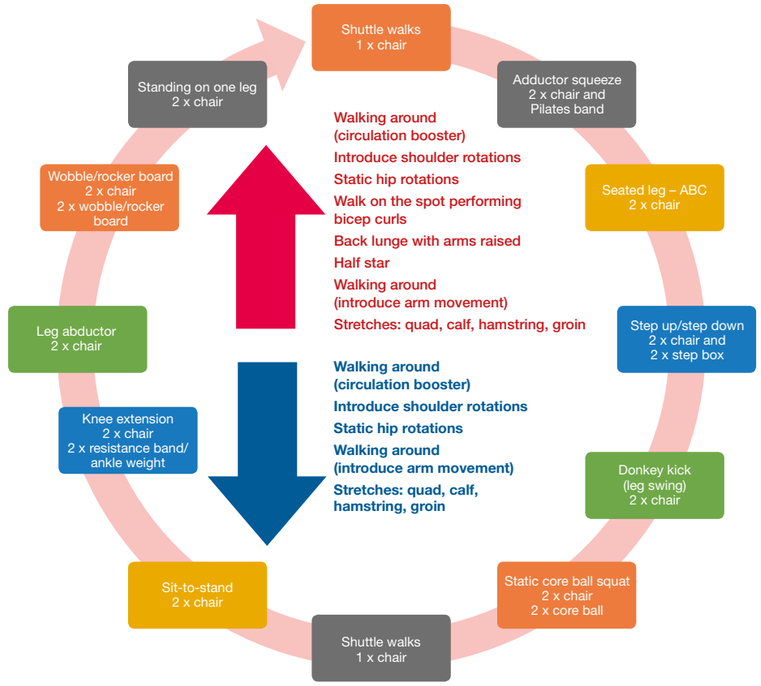
Senior lifestyle coach at Everybody Sport and Recreation, and ESCAPE-pain facilitator, Kevin Morris, details some key advice for trainers.

The exercise prescription should focus on mobility, flexibility, balance and strengthening exercises, as well as cardiovascular activities. Mobility exercises such as leg abduction and heel slide are crucial to the prevention and rehabilitation of the condition. The client should focus on mobility exercises that are related to their daily activities, and look to regain mobility before working on stability, strength and power to get them back to fitness. Remember, fitness is not just achieved in a fitness environment; encourage the client to take up more active daily living tasks to boost their movements.

Strengthening exercises such as straight leg raise or box step-up with good form are key activities that may help the client return to 'normal living', gaining necessary control, strength and power. Ensure your exercise prescription also includes some cardiovascular activities, or encourage some out-of-class activities such as swimming or walking for the prevention of CHD and high blood pressure.

Above is an example of a circuit, spending up to two minutes on each station. The client does not have to do all of them, just as many as they feel comfortable with.

The client may want to start on some of the general exercises and then move on to those that focus on building strength and control in their most affected joint. It is important to remember that it's common to ache when they have not exercised for a long time, or if they are doing something new. This is different to the aches and pains they will experience with their long-term joint pain. Also, it is not an indicator of harm to their joints; muscular pain may last a little longer and can come a day or two after exercising. During exercising, if they feel different pain from their normal pain, they must consult with you.



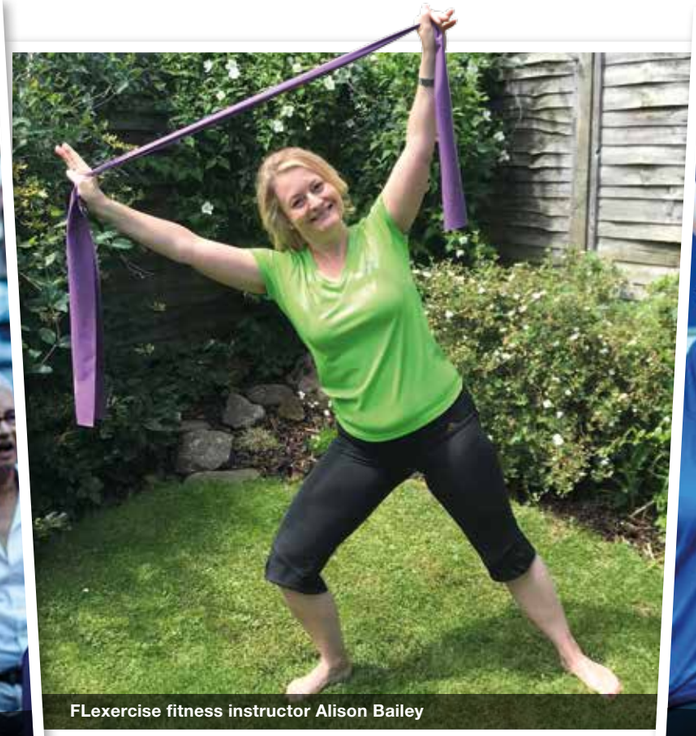
EQUIPMENT

- 22 chairs
- 2 Pilates bands
- 2 x step boxes
- 2 x core balls
- 2 x ankle weights
- 2 x resistance bands
- 2 x wobble/rocker boards

Top tips for designing your own circuit

- Avoid high-impact activities
- Ensure your client is appropriately dressed, from wearing the right footwear (comfortable) to even having the right insoles
- Go for cross-training methods to vary joint stress and to avoid excessive repetitions of the same joint
- Avoid fast-paced activities or those with excessive changes of direction
- If joint pain or swelling appears, DON'T STOP EXERCISING; reduce intensity and duration or look to change the mode of activity (i.e. to water based)


Support group taking part in group exercises


FLexercise fitness instructor Alison Bailey


Versus Arthritis support group

If you have any concerns, the client should be referred back to their GP for further investigation.

If you're planning to work with a client that has OA, a good place to start is to investigate what could have contributed to the degeneration of the joint. Although the causes are not currently known, strong evidence shows there are some factors that contribute to the condition. Investigating these factors will help you to design a bespoke exercise prescription. For example, if your client is overweight, you're going to want to avoid any full-bodyweight activities and look to prescribe some partial-bodyweight activities such as the exercise bike or seated exercises.

- **Age** – more than half of people at retirement age show changes on X-ray due to OA
- **Gender** – more women are affected than men, especially with OA in the hands and knees
- **Genetics** – nodal osteoarthritis has a strong genetic link and affects women's hands; genetic factors also play a small part in OA of the hip and knee
- **Weight** – extra weight on the joints can contribute to the onset of joint pain and speed up its progression
- **Previous injury** – major injuries such as fractures or surgery can lead to changes in the joint later on
- **Joint abnormality** – congenital deformities or childhood diseases such as Perthes of the hips can predispose some people to develop arthritis in later years
- **Occupations** – certain occupations are associated with OA, e.g., plumbers are more likely to have knee pain; normal activity does not cause osteoarthritis; however, intense repetitive activity can increase the risk

Surgery and medication

Before the client comes to you, they may already be receiving some treatment for the condition, such as medication, physiotherapy, even pre- or post-surgery. It is important to ask your client about their pain levels and any medication they might be taking. Different medications can have side effects that fitness professionals will need to be mindful of when supporting clients with OA.

If your client has already come to you with a knee or hip replacement, they are one of 140,000 people who have had this surgery performed by the NHS each year. Many people do not find their pain is eliminated through surgery and are disappointed with the result. Even for those who have a good outcome of a knee replacement, it is not a permanent fix as joint replacements are usually effective for about 10 years. This contributes to a significant burden on the NHS that, in some cases, could be delayed or prevented through lifestyle changes.

Former professional dancer, Alison Bailey, 51, is a FLexercise fitness instructor and was diagnosed with osteoarthritis. This is her story.

I came from a dance background and danced from the age of seven up until I was 27. It was therefore a very strenuous time on the body. Yet, it wasn't until I went down the fitness route in my mid-40s that it became apparent that I had a problem. I just felt something go 'ping'. After a number of scans, it turns out that I had OA in both my hips, and my right hip was proving quite stiff.

I went down the route of having steroid injections for a period of about two years, and manipulation, which was agony. I ended up having microfracture surgery before the last resort of a hip replacement. I was rated Grade 4 for a hip and already had a walking stick.

Two and a half years ago, I resorted to a hip replacement on my right side. I'm the lucky half of the population where the replacement itself was successful, in that I have no pain, but I have been left with a 5cm leg difference and I have to wear built-up shoes. I exercise every day and keep myself moving. I have a bike and I love to kayak, but I'm mindful of doing repetitive exercise. I also teach an hourly session and I've got 120 class members who come every week. The 50+ is our market and the class is an aerobics/dance-based system built on core stability and movement. The class is medium impact and, in my opinion, is very good for people who have arthritis. We work on strength, mobility and flexibility to strengthen the muscles around our joints – as this removes some stress away from the joints.

Instructors need to be mindful of 'repetitive movements' because, after time, these can become painful. I can't walk properly for more than half an hour without being in pain.

I find that exercise is the best non-drug treatment for reducing pain and improving movement, certainly for those with OA. We need to hope that GPs will go down the route of prescribing exercise, rather than just medication, as our bodies are designed to move.

Trainer take-homes

Kevin Morris

1. Investigate the modifiable causes and encourage a change; being more active, having a healthier bodyweight, and avoid overusing the joint
2. Understand the condition and cascade this information to your clients so they understand how flare-ups happen and why – they don't need to stop exercising
3. Make your programme bespoke to the client as that will help them achieve more active daily living tasks, such as use a step box to perform step-ups and step-downs if your client is avoiding stairs, or if they struggle getting in and out of a chair, perform some sit-to-stand exercises
4. When planning an exercise prescription, sometimes it's unrealistic that the client can attend your facility five times a week to meet the Government's physical activity guidelines, so consider using low-cost equipment such as bands or objects at home such as a step or chair
5. Make it FUN – encourage a good rapport between each client; this will help the building blocks for a great retention scheme, and also talk to them about the weather, sports and other hobbies that interest them
6. I strongly recommend the following:
   - Checking the course has been endorsed by a chartered institute such as CIMSPA or REPs; I personally recommend the Wright Foundation, as I have been on many Level 4 specialist courses and found it provided me with sufficient knowledge to confidently help clients with complicated medical conditions
   - I would also highly recommend attending and becoming an ESCAPE-pain instructor, which focuses more on the holistic approach to self-care and exercise prescription; it's an evidenced-based programme that works and is approved by NHS England

For more information on exercise and arthritis, please visit the Versus Arthritis online advice pages: versusarthritis.org/exercise

VERSUS ARTHRITIS

We are here to support anyone who is affected by arthritis. Our free helpline is available to offer advice and support, Monday-Friday, 9am-8pm. **Call 0800 5200 520** or email **helpline@versusarthritis.org** ***fp***