

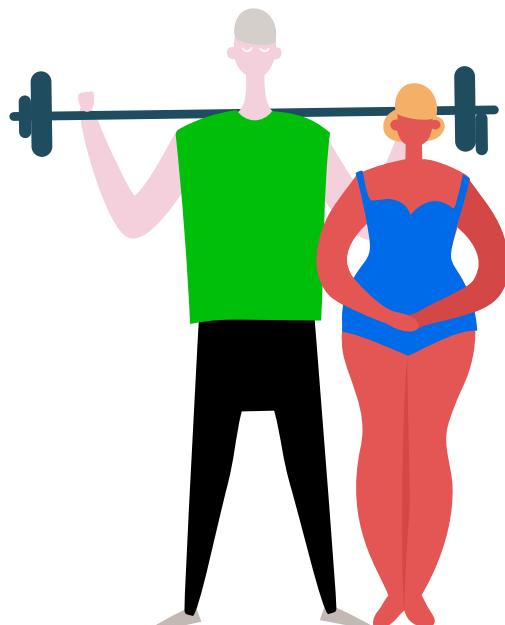
Build Activity Into Your Everyday Life

Inflammatory Arthritis and Osteoarthritis

Inflammatory arthritis (iA) (including rheumatoid arthritis, ankylosing spondylitis, connective tissue disease) and osteoarthritis (OA) are major causes of pain and disability, worldwide. Physical activity has been proven to have many benefits for people with iA and OA – reducing the disease progression, and improving fitness in people who are regularly active.

However, the reality is that many people suffering from any one of these diseases are generally less active, most commonly because of pain, stiffness, reluctance or fear of causing a flare-up, or injuring themselves and doing more damage to their joints. Remaining inactive (thinking you are protecting your body) can actually do more harm than good, not to mention missing out on the benefits of increasing your activity levels on your cardiovascular system, general fitness and energy levels, weight maintenance and mental outlook.

Before making changes to your life and being more active, you have to believe the benefits are worth it, so we've listed a few here.



Benefits of being more active include:

- ① **Less fatigue:** The less physically active you are, the more tired and fatigued you become. Muscles waste (lose bulk) and become weak, your heart and lung capacity decreases (your cardiovascular fitness) and there is a reduction in the activity in the nerves supplying your muscles. All of this makes any form of physical activity (even daily chores) seem like such an effort and hard work. Being more active recruits more nerves supplying your muscles and your muscles become stronger and maintain their bulk. The muscles work more efficiently meaning they demand less oxygen, reducing the stress on your heart and lungs as they don't have to work as hard, making you less breathless, and having a lower heart rate for doing the same activity. Ultimately, over time, this makes you less fatigued and more able to cope.
- ② **Improved disease activity:** Disease activity scores have been shown to improve with physical activity, without causing any adverse effects.
- ③ **Improved ability to carry out daily chores and activities:** Feeling less fatigued, aerobically fitter (cardiovascular fitness), with stronger muscles and more stable joints, knowing you can be active without causing further joint damage, are all excellent motivations to keep you moving and will help you maintain your independence, be it doing simple daily chores and activities or staying employed.
- ④ **Enhanced mood:** Low mood and depression are common in people suffering from chronic pain and arthritic diseases. Physical activity is proven to improve depression and with that self-esteem and quality of life. Being active promotes the release of endorphins like serotonin, a happy hormone, that will also make you feel better. Also, simply realising over time that the more you do, the more you are able to do and feel good about it – will improve your mood.
- ⑤ **Better sleep:** Sleep disturbance and fatigue go hand in hand. Physical activity has been proven to improve daily routines and sleep.
- ⑥ **Better management of joint pain and stiffness:** Being more active will improve your muscle strength and mobilise your joints. Strong muscles ensure good support and correct alignment of joints which may help reduce joint pain. Also, moving more helps lubricate the joints and prevent the build-up of stiffness from the connective tissues and muscles becoming shortened and tight. Stretching can be a part of physical activity and will help improve joint mobility and reduce stiffness.
- ⑦ **Improved lung function:** Restricted lung function is common in many people with iA, especially ankylosing spondylitis. Generally, exercise has been proven to improve lung function; however, specific exercises including postural correction, inspiratory muscle training (deep breathing and chest expansion exercises), swimming and walking all give excellent improvements in function. You can ask your physical therapist for specific exercises to help.
- ⑧ **Maintenance of neck and back flexibility:** Being more active helps maintain or improve mobility in your spine. Walking, swimming, Pilates, yoga and Tai Chi are all excellent activities to aid in stretching and mobilising your spine. Better spinal posture will help reduce pain and keep you mobile, and independent as well as aid in better lung function.
- ⑨ **Maintenance of strong bones:** iA is commonly associated with increased risk of lower bone mineral density – essentially the development of osteoporosis, which can result in increased frailty and fractures which could be fatal with increasing age. Physical activity, especially including strength or weight-training, can build strong bones increasing bone density by 1–2% and protect you against fragility fractures.

So, now that you have an idea of the many benefits of physical activity, you may be motivated to do more, but still have some fears and concerns to overcome. Here are some specific tips regarding your condition and how to prepare yourself for being more active.

Concern	Advice
I am already in pain, being active will make the pain worse	<p>In most cases regular physical activity helps reduce pain over time. Some mild discomfort after activity is quite normal and does not mean damage. It is normal, especially for people who have been inactive to have some muscle soreness after activity for the initial few weeks.</p> <p>You can reduce this by:</p> <ol style="list-style-type: none"> Having an adequate warm-up and cool down of 5–10 minutes and stretching before and after exercise Exercising at a time in the day when you know you are at your best and pain is normally at its lowest. <p>The 24–48 hour rule:</p> <p>If you have pain after exercise and the pain persists (not reducing) after 24–48 hours then maybe you have done too much. Reduce the intensity or duration of the activity, but don't stop!</p>
I am worried I will damage my joints	As mentioned earlier, exercise actually benefits your joints by developing stronger and more supportive muscles. There is no evidence to show that regular physical activity causes joint damage.
Are there activities I should avoid if I have iA?	Those with advanced disease should avoid contact sports, like rugby, hockey, basketball and high impact activities.

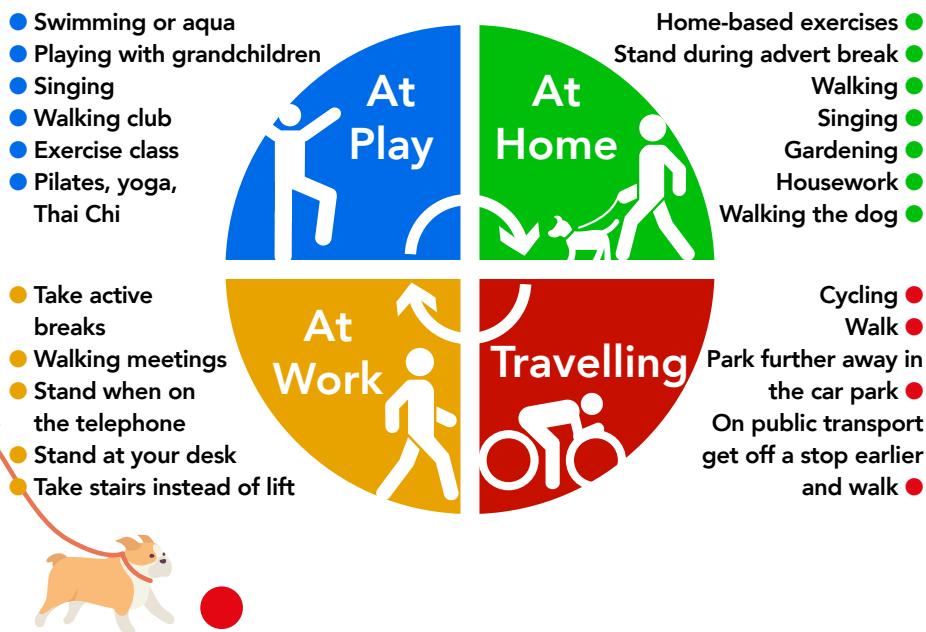
If you are new to physical activity start gently and build up gradually over the first 3–6 months. Pace yourself and listen to your body. If you feel pain and stiffness after exercise (different to your normal disease-related pain and stiffness) that is your body adapting to activity and it will become less over time. As mentioned above, if the discomfort doesn't subside within 24–48 hours make a note of this and reduce your intensity or duration the following day and then gradually build up again. Do something you enjoy and maybe where you can socialise at the same time – a group walk or exercise class. Don't stop being active, consistency is key – even if you are having a flare-up try to do less or something else as long as you keep moving!



Making everyday life more active

Apart from formal exercise or group activities, you can build activity into your everyday life. Small changes will ultimately make big differences to your quality of life.

Ideas for making everyday life more active include:



The Last Word

A good idea before starting an activity is to sit down with your therapist or even a family member or friend and write down what it is you want to achieve. Set goals, easy achievable ones initially. These will help build self-esteem and confidence. Then you can start looking from short-term easier goals (which may be as simple as walking 10 minutes every day, or achieving a walk around the block 3 times a week) to middle- and long-term ones, extending

over the coming months and year.

'Action planning' is the next step. Write down what you are going to do each day or as a weekly plan. Keeping these plans, together with a daily diary, will help you stay motivated and see the improvements over time. You can use self-monitoring devices like pedometers, wrist-worn accelerometers or smartphones to keep track of your daily step count. There are also many activity apps that can be downloaded to mobile phones to help you

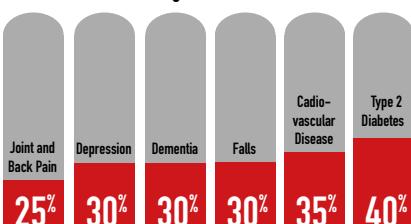
monitor your activity levels, motivate you or provide you with daily exercise routines. Get help and advice from your physical therapist about what would best suit you and your condition.

Make sure you have support – be it family and friends or a physical therapist, support group or exercise programme. The right support will be invaluable in keeping you motivated and encouraged, particularly on those bad days, and make you accountable for changing your life!

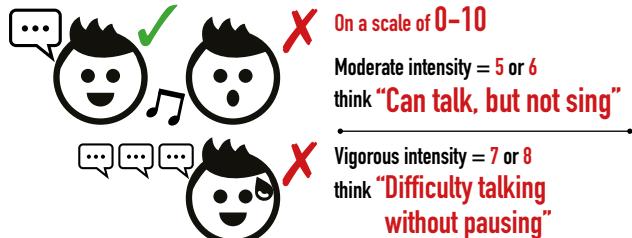
Gold Standard Exercise Recommendations for Health

If Exercise Was A Pill

Reduce your risk by being more active. Staying physically active reduces your chances of suffering from



What is Moderate Intensity Versus Vigorous Intensity Activity?



What Activity Should I Be Doing If I'm Between the Ages of 5–17?

- 60 minutes of moderate to vigorous-intensity physical activity – every day
- > 60 minutes daily will give even better health benefits
- Most of the daily physical activity should be aerobic
- But should incorporate vigorous – intensity activities that strengthen muscle and bone, at least 3 times per week



What Activity Should I Be Doing If I'm Between 18–64?

- 150 minutes of moderate-intensity aerobic physical activity each week, or 75 minutes of vigorous-intensity aerobic physical activity
- Aerobic activity should be performed in bouts of at least 10 minutes
- 300 minutes of moderate-intensity or 150 of vigorous-intensity aerobic physical activity brings even greater health benefits
- Muscle-strengthening activities should be done involving major muscle groups on 2 or more days a week.



What Activity Should I Be Doing If I'm Over 65 Years of Age?

- 150 minutes of moderate-intensity aerobic physical activity each week, or 75 minutes of vigorous-intensity aerobic physical activity
- Aerobic activity should be performed in bouts of at least 10 minutes
- 300 minutes of moderate-intensity or 150 of vigorous-intensity aerobic physical activity brings even greater health benefits
- Activities that enhance balance and prevent falls on 3 or more days per week
- Muscle-strengthening activities should be done involving major muscle groups, on 2 or more days a week
- The goal is to be as physically active as your abilities and conditions allow.



Reference: Global Recommendations on Physical Activity for Health, World Health Organisation 2018

How Activity Intensity Reduces Your Risk of Dying



Reference: Domains of physical activity and all-cause mortality: systematic review and dose-response meta-analysis of cohort studies. <http://bit.ly/2S7BXOW>

First Steps to Being More Active

150 =



or



TIP If you are starting out try breaking your daily goal into shorter bouts of 10 minutes at a time



Join friends to make it more enjoyable



1 min vigorous intensity = 2 min moderate intensity

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