ARThRITIS
AND EXERCISE

A guide for patients providing a series of exercises that can be helpful in the management of the symptoms of arthritis.
Arthritis affects us all

Arthritis is a disease that affects millions of people worldwide. Perhaps you have arthritis, or know others who do.

People with arthritis generally experience more pain, more activity restrictions, a greater loss of mobility or movement, and more long-term disability compared to people with other chronic conditions.

There are preventative measures that you can take to help slow down the progression of the disease and get the most out of life.

Talk to your doctor or healthcare provider to find out more about arthritis.

Benefits of exercising regularly

If ever there was a perfect excuse not to exercise, arthritis pain would seem to be it. However, research shows quite the opposite: a properly designed exercise program can not only increase your pain threshold, but also raise your fitness level and stamina.

Exercise can play a big role in your management of pain and fatigue. Stronger muscles can better protect your affected joints from pain and make your day-to-day activities less strenuous. Stronger muscles can also provide you with a greater range of movement to help you manage your day.

Word of caution

Before starting any new type of exercise program, it is always wise to check with your doctor or physiotherapist to make sure the activity you are planning to start is not too strenuous for your particular case.

If any of the exercises recommended to you cause significant or persisting pain for more than an hour, stop doing them and talk to your doctor. If you have an artificial joint, talk to your surgeon before doing exercises that involve that joint.
Important points about starting to exercise

- Discuss exercise plans with your doctor.
- Start with supervision from a physical therapist or qualified athletic trainer.
- Apply heat to sore joints (optional).
- Stretch and warm up with range-of-motion exercises.
- Start strengthening exercises slowly with small weights (a 1- or 2-pound weight can make a big difference).
- Progress slowly.
- Use cold packs after exercising (optional).
- Add aerobic exercise.
- Fewer injuries to joints affected by arthritis occur during recreational exercise if it is preceded by range-of-motion, strengthening, and aerobic exercise that gets your body in the best condition possible.
- Reduce the number of repetitions if your joints become painful, inflamed or red, and work with your doctor to find the cause.
- Choose the exercise program you enjoy most and make it a habit.
Range-of-motion exercises

Range-of-motion exercises are gentle stretching exercises that move each joint as far as possible in all directions.

These exercises need to be done daily to help keep joints fully mobile and prevent stiffness and deformities. Range-of-motion exercises are especially important for arthritis patients who, because of intense inflammatory pain, tend to avoid moving painful joints.

Daily tasks such as climbing stairs, getting dressed, or going for walks do not put your joints through a full range of movement nor do they help strengthen your weakest muscles. Your healthcare provider can design a specific exercise or stretching program to meet your needs.

### Head Turns
- Turn your head to look over your shoulder
- Hold for 3-5 seconds
- Return to front
- Repeat on other side

### Forward Arm Reach
Put arms out in front, palms facing one another. Raise one or both arms as high as possible (one arm may help the other if needed). Lower your arms slowly.

### Knee Lift
- Sit straight up
- Lift one knee up 3-4 inches off the chair
- Hold for 3-5 seconds and lower
- Repeat with other knee (you may help by placing your hands under your thighs)
Shoulder Circles
With shoulders relaxed and arms resting loosely at your sides (or on your lap if you are seated), gently roll your shoulders forward, up, back and down. Reverse direction. You can do this exercise alternating shoulders or do both at the same time.

Shoulder Blade Pinch
Sit or stand with your shoulders relaxed. Keep your chin tucked in. Raise your arms out to the sides with elbows bent. Pinch your shoulder blades together by moving your elbows as far back as you can. Hold for three seconds, and then relax.

Ankle Circles
Sitting properly in a straight-backed kitchen chair, lift your right leg with your knee straight and draw a circle in the air with your big toe. Reverse the direction of the circle. Be sure to keep your leg still. Repeat with the left leg.

For more information, please refer to any of the following resources:
• www.arthritis.ca
• www.arthritis.about.com
Stretching exercises

Preparing the body for exercise is important for persons at any age and fitness level. The key to preventing injuries before exercising is to warm up. One of the best ways to warm up is to do flexibility or stretching exercises.

The key to proper stretching lies in the way you perform the exercise. When you are stretching certain parts of your body, you should not feel pain. Staying relaxed is very important to stretching properly. Make sure your body is not tight. Your shoulders, hands and feet should be kept relaxed as you stretch. Breathe slowly.

Here are some exercises that you may find beneficial.

**Lower Back**
Lie on your back and pull your left leg towards your chest. If possible, keep the back of your head on the floor. Try to keep your lower back flat. Hold for 30 seconds. Repeat with your right leg.

**Hip/Knee Stretch**
Stretch and strengthen your knee by extending your leg straight out from a sitting position. For extra benefit, put your foot on a stool, straighten your knee as much as you can and try to lean forward slightly.

**Hamstring Stretch**
If you find the above hip/knee exercise easy to do, you may want to consider the following. Begin by sitting at the edge of a chair or bed, straighten your left leg out in front of you and rest your heel on the floor or a small stool. Sit up straight, then gently bend forward at the hips until you feel a gentle stretch on the back of your left leg. Hold for 20-30 seconds. Sit up slowly and repeat with the right.
Finger Spread
With your palm resting on a flat surface, spread your fingers as widely apart as possible. Slowly draw your fingers together again, still keeping your palm flat.

Wrist Bend
Start with your elbow bent at 90° and tucked at your side. Keep your thumb side up and fingers relaxed. Grip your forearm with your other hand to hold it still. Moving only your wrist, bring your hand toward you into flexion and then backward into extension (remember to keep your fingers relaxed, otherwise stiff finger tendons will limit the range of the wrist extension).

Side Bend
Stand with your feet shoulder-width apart, knees slightly bent and tummy tucked in. Reach your right arm up and over your head to the left side. Your left arm reaches down your left leg to your knee. Let your body lean into the stretch (if there is any pain, you are reaching too far). Hold for a count of three. Return to your starting position. Change arms. You can also do this exercise sitting in a straight-backed chair.

For more information, please refer to any of the following resources:
• www.arthritis.ca
• www.aaos.org
Strengthening exercises help increase muscle strength. Stronger muscles help support the joints making them more stable thereby allowing easier movement with less pain.

If the muscle surrounding the damaged bone or cartilage is strengthened, there will be better stability, support, and shock absorption to protect your joints from further injury.

Strength programs should start with just a few repetitions per set and then gradually be built up to 10 per set. Do two sets if there is no pain, but take a break between sets. Do these types of exercises three times per week but one to two days apart to allow the muscles time to recover.

There are strength exercises in which you contract your muscles without moving your joints. The contractions should be held for 6 seconds, and repeated 5-10 times with a 10-second rest period between contractions. These types of exercises help build your muscles while avoiding the movement of painful joints.

The main muscle groups that should be strengthened are: hips, fingers, knees, legs, shoulders, biceps, hands/wrists and the neck.

There are other types of strength exercises in which you move your joints and use increasing resistance such as weights, your own body or rubber bands.

**Hip Strengthener**
This exercise increases the backward mobility and strength of your hip. Hold on to a counter for support. Move the leg up and back in one smooth motion. Keep your knee fairly straight and do not point your toes. Stand tall and do not arch your back.

**Finger/Hand Strengthener**
With your hand resting on a flat surface, slide each finger towards your thumb one at a time, while using your other hand to resist the movement.
Neck Exercises
Start with your head in a neutral position.

1. Slowly move your head as far back as possible then hold the stretch for 3-5 seconds. Bring your head slowly forward and try to touch your chin to your chest. Hold for 3-5 seconds. Repeat 2-3 times.

2. Slowly tilt your head to the left and hold for 3-5 seconds. Bring your head to the right and hold for 3-5 seconds. Repeat 2-3 times.

3. Turn your head to the right and try to bring your chin as far back as possible. Hold for 3-5 seconds then repeat on the left side. Repeat 2-3 times.

4. Bring your chin as far forward as possible, stop and hold the stretch for 3-5 seconds. Release and push your chin as far back as possible. Hold for 3-5 seconds. Repeat 2-3 times.

Finger/Hand Strengthener (cont’d)
Start with your hand as shown. Slowly close your hand until you can make a fist. If you experience no pain, you can then proceed and make a full fist while squeezing your hand as tightly as possible. Hold the position for 3-5 seconds and then slowly release and repeat 2-3 times.

For more information, please refer to any of the following resources:
• www.arthritis.ca
• www.orthop.washington.edu/Default.aspx
There are certain types of exercises that provide steady resistance while the joint is moved through a partial range of movement. In these exercises, you strengthen muscles by moving your joints.

**Knee Strengthenener**
While sitting in a straight chair, lift your foot until your leg is straight and then slowly lower it. Repeat with other leg.

![Knee Strengthenener](image)

**Leg Push**
Lie flat on your back on your bed with your left knee bent and your right leg straight. While keeping your foot straight, squeeze your buttocks as you push your right leg down into the bed. Hold for five seconds and repeat 10 times, before changing to the left leg.

![Leg Push](image)

**Backward Shoulder Press**
Stand with your back against a wall and your heels 6 cm (3 inches) out from the wall. Keep one arm bent at the elbow. Push back against the wall using only the upper part of your bent arm. Hold for a count of 10 and relax. Repeat with your other arm.

![Backward Shoulder Press](image)

**Bicep Curls**
Use light hand-weights (0.25-1.5 kg, or 0.5-3 lbs) for this exercise. You should be standing with your knees slightly bent. Start with your arms hanging loose at your sides, with palms facing forward. Keeping your upper arms steady, bring your hands up towards your shoulders.

![Bicep Curls](image)
Endurance exercises

Aerobic types of exercises improve cardiovascular fitness, help control weight, and improve overall health.

Weight control for arthritis sufferers can be very important because the extra weight places additional stress on our joints.

These types of exercises should be done for 5-10 minutes three times a week to start, and then gradually increased over a few months to 20-30 minutes.

There are many types of endurance activities to help control weight including:

Walking

Cycling

Water Exercises
Enjoy recreational exercises

Many people find it difficult to stick to a regular exercise program. The trick is to make it a habit; for example, try to build your exercise routine into a social function. There are many group activities such as yoga, tai-chi, and dancing which make exercising fun.

Talk to your healthcare providers; they may have recommendations based on your needs.

Yoga
Yoga is a system of exercises that helps you control the body and mind. It also improves your breathing and focuses the alignment of your body through joint movement.

Tai Chi
Tai chi is an ancient form of exercise that combines controlled movement and proper breathing techniques. This type of exercise is suited for people of all ages and offers a full range of motion for most joints.

Dancing
Light dancing helps loosen muscles and improves joint function. Regular dancing is beneficial in improving health.
Motivation

The benefits of leading an active lifestyle far outweigh leading an inactive one, especially for arthritis sufferers. You can be harming your body by not stimulating your joints on a regular basis and this can actually worsen your situation.2

Just because you may be suffering from arthritis, it does not mean that you cannot lead a healthy lifestyle. You can do something about it. Try to incorporate activities such as dancing, swimming or walking into your daily routine and you will notice a marked improvement in your health, not just in your arthritis.

Exercise Schedule

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### Your Arthritis Healthcare Team

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<tr>
<th>Who to Contact</th>
<th>How to Reach Them</th>
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<td>Your Physician:</td>
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<td>Your Specialist:</td>
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<td>Your Physiotherapist / Kinesiologist:</td>
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<td>Your Occupational Therapist:</td>
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<td>Your Dietician:</td>
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<td>Other:</td>
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Use the scale below to tell your doctor how you have been feeling. This will help determine the effectiveness of your medication to-date.

Circle the face that best represents how you were feeling BEFORE you started taking your medication:

0 1 2 3 4 5
No Hurt Hurts Little Bit Hurts Little More Hurts Even More Hurts Whole Lot Hurts Worst

Now circle the face that best represents how you are feeling TODAY:

0 1 2 3 4 5
No Hurt Hurts Little Bit Hurts Little More Hurts Even More Hurts Whole Lot Hurts Worst
References:
1. www.arthritis.ca.