

Patient Education Series (Arthritis) – English I

❖ Arthritis ❖

Exercises and Yoga

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Exercise In Arthritis 1

Regular activities of day-to-day life need energy. They help in maintaining flexibility, endurance and Strength. staying occupied throughout the day is always refreshing as it reduces fatigue to a considerable extent. We must understand the difference between routine work-related activities and exercise. Exercise means rhythmic repetitions of an activity leading to more energy-expenditure and various other benefits according to the type of exercise. It is absolutely essential for good health. It is advised in most chronic conditions. Exercise is highly beneficial in all types of arthritis and can be considered as part and parcel of arthritis management.

Exercises are of 3 types – aerobic, stretching and strengthening. There are 2 subtypes. **Dynamic exercises** involve movement of joints. They improve blood circulation and breathing capacity, increase strength and fitness. There is no movement at joints in **isometric or static exercises** – they improve muscle strength.

1. Aerobic Exercises

Aerobic exercises (also known as ‘cardio’) improve blood circulation leading to better supply of oxygen to various organs of our body. They increase vigor and resistance leading to better health. Walking (slow or brisk), hill-climbing, cycling, swimming, skipping, Sun-salutations, playing on ground, dancing are all aerobic exercises. Walking in water (against resistance of water) is particularly good for arthritis of lower limbs. These exercises involve continuous rhythmic movements of large muscles of our body.

Walking is widely accepted as the most easily accessible cheapest form of aerobic exercise. Ayurveda, too, describes walking as basic exercise. One should walk at a slow steady speed to start

with and increase the speed later. Brisk walk increases heart and pulse rate. Anybody can count own pulse rate at wrist. Pulse rate should increase up to 60-70% of the figure of 220 minus age of individual (105-125 per minute for a 40 year old). This rate should be ideally be maintained for 20 minutes during aerobic exercise. Some sweating is acceptable though one should not feel too much breathless and should be able to speak easily. 100 steps a minute imply medium grade exercise. One should walk at this speed for at least half an hour daily for five days a week. Continuous walking is better though interrupted walk (say, 10-minutes walk thrice a day) is said to be equally effective.

2. Stretching Exercises

Stretching of body and limbs improves range of movements of individual joints. It relaxes shift joints and makes them more flexible. Most stretching exercises (like those on school grounds) are also done as 'warm-up' prior to aerobic exercises. One can stretch as much as possible though overstretching should be avoided as this can harm swollen joints. Guidance from a qualified physiotherapist is invaluable in some cases. Most of the initial physiotherapy exercises for individual joints are stretches. They aim at increasing range of joint-motion initially to be followed by strengthening exercises at a later stage. Maintenance of a stretched position is not expected in these exercises. A pleasant and steady stretched position is maintained for some time in Yoga. Yoga has many other advantages too.

3. Strengthening Exercises

Weights, rubber-bands or springs can be used to improve ability, strength and endurance of muscles. Strong muscles can protect joints from injuries during activities of daily living. Strengthening exercises can be dynamic or static. Static exercises are better for patients with arthritis, though dynamic exercises can also be attempted within feasible range of movement without causing significant pain.

Recommendations

Patients with arthritis should always consult a physiotherapist before starting exercise. One should understand own limitations. Body weight and condition of joints are important factors in choosing a particular type of exercise. Improper exercise can harm. Over-exercise can cause fatigue, muscle-strain, sprains and occasional fracture. Ayurveda describes too much exercise as a cause of derangement of *Vata*.

General instructions about exercise

- ✓ Do exercises in fresh, pleasant environment.
- ✓ It is better to exercise on empty stomach (morning/evening).
- ✓ Do not eat anything for about an hour after exercise. Sips of water or other fluids are allowed.
- ✓ Wear comfortable cotton clothes during exercise.
- ✓ Use proper footwear during exercise. Use of sports or canvas shoes recommended.
- ✓ Breathe in and out normally from nose. Avoid mouth-breathing.
- ✓ Concentrate on the joint or muscle group for which you are exercising.
- ✓ Rest for a minute or so if you feel fatigue.
- ✓ Concentrate on your exercise and do it slowly. Never exercise hastily; do not jerk your joints.
- ✓ Learn exercises, especially those for shoulder & hip from a physiotherapist.

- ✓ One should feel relaxation of muscles after exercise. Increase in pain after exercise may indicate wrong method. Stop exercise and meet your physiotherapist again in such situation.
- ✓ Be relaxed and maintain proper posture during exercise. It is good to look into a mirror during initial days of exercise.
- ✓ Maintain a posture for about 10 seconds and return back slowly to resting position.
- ✓ Start low – for some minutes – and increase your work-out gradually.
- ✓ Exercise one sided limbs at a time initially. Simultaneous exercise for both limbs will be possible after some days.
- ✓ Exercise twice each day. Regularity is of utmost importance.
- ✓ Look for a friend if exercising alone gets boring. Exercise accompanied by music is quite entertaining.
- ✓ Balanced diet is also necessary for appropriate benefits of exercise. Meal timings should be strictly adhered to. Consult a dietitian for reducing weight.

Exercise should be preceded by a short (4-5 minute) 'warm-up' and be followed with 'cool-down' (relaxation such as *Padmasana* or *Shavasana*). Water and electrolyte depletion caused by sweating during exercise should be replaced by drinking adequate fluids (water, buttermilk, fruit juice).

Most people are enthusiastic about starting workouts but do not pursue. The beneficial effects of exercise can be seen after some weeks. Regularity in doing exercise is extremely important though weekly offs are allowed. Patients with arthritis, especially obese ones, are generally reluctant to do exercise due to doubts about their own ability and fear of injury as well as increase in pain. Lack

of time is a common excuse. Although exercise may be difficult for patients with joint pains due to arthritis, it is now established that exercise can reduce pain to a significant extent. All patients with arthritis, therefore, must exercise every day.

Exercise reduces pain in patients with rheumatoid and other inflammatory arthritis and improves functional capacity. It does not cause any harm. Obesity certainly harms joints. Exercise reduces weight and helps patients of arthritis. Weight loss is essential in patients with gout too. Vascular complications (ischemic heart disease) in inflammatory arthritis reduce life expectancy. Exercise improves blood circulation and helps in this respect too. Muscle stretching improves metabolism in bones and strengthens them. Exercise is thus useful in postmenopausal osteoporosis. Exercise is extremely useful in all patients with neck and back pain. Exercise reduces psychological stress and depression, allays fatigue and increases vigor. It thus increases capacity to work and improves quality of life.

Patient with arthritis need not go to an expensive gymnasium for routine exercise. Sufficient exercise, sometimes with simple appliances, can be undertaken at home. This saves money as well as travel-time. Patients with arthritis must learn different forms of exercise; chalk out a program for themselves and follow it regularly. They must consider exercise as their moral responsibility and behave in a disciplined manner to carry it out.

Exercise has beneficial effect on every organ of our body. Improvement in health status brought about by exercises leads to better disease control, reduction of number of pills, less number of doctor-visits and saving of money. Never feel bored to do exercise. Always remember that exercise is an essential component of arthritis management.

