

Smoking has been shown to produce back pain because peripheral circulation (blood vessels throughout the body) is diminished by lack of oxygen to the tissues. Because of its negative impact on circulation, as well as all its other negative health consequences, smoking should be avoided at all cost. Circulation can be greatly improved by core strengthening and spine stabilization.

Elderly people frequently suffer from a variety of chronic pain conditions. Lack of physical exercise is a major problem affecting pain management in the elderly. All the various forms of exercise discussed previously will improve function and reduce pain.

Exercise can improve strength and flexibility giving oneself a sense of independence and health. It will raise the level of the body's natural painkillers and endorphins and it is a therapeutic approach to treating the pain and constipation caused by some treatments. Exercise helps function, decreases pain and greatly improves quality of life.

CATEGORIES OF EXERCISES

Aerobic Exercise:

- Cycling
- Jogging
- Dancing
- Fitness Walking

Anaerobic Exercise:

- Power weight-lifting
- Jumping
- Sprinting

Isotonic Exercise:

- Weight Training
- Calisthenics: Sit-ups and push-ups
- Stretching
- Yoga

AGE	BEAT PER/MIN @ TRAINING LEVEL
20	138-158
25	137-156
30	135-154
35	134-153
40	132-151
45	131-150
50	129-147
55	127-146
60	126-144
65	125-142
70	123-141
75	122-139
80	120-138
85	119-136



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LIVING HEALTHY WITH CHRONIC PAIN



EXERCISE

how exercise can reduce pain



EXERCISE

HOW EXERCISE CAN REDUCE PAIN

By Erving London, CNP

Exercise is vital to our physical and emotional health. Exercise can improve quality of life, decrease pain, improve muscle tone and posture, increase strength and stamina as well as improve circulation and respiration. Exercise has been shown to reduce blood fat levels by changing large blood fat globules into smaller ones that move easily through the bloodstream and are less likely to clog arteries. Exercise is also good for the mind. It invigorates and energizes to help relieve tension and anxiety.

Types of Exercise

There are several different types of exercise and a good workout routine usually will include: Isotonic, Stretching, Aerobic and Anaerobic exercises.

Isotonic exercise is weight training, stretching and yoga, which develop muscle strength and flexibility. This form of exercise is essential for toning muscles and building strength.

Aerobic exercise refers to sustained movement that increases the amount of oxygenated blood carried to muscles and organs. Any activity that increases your breathing and heart rate (pulse) are aerobic. Examples of aerobic exercise include running, jogging, fitness walking, jumping rope and cycling. Stationary bicycles, Lifecycles and StairMasters are aerobic fitness machines. When performing these types of exercise you should maintain a training level heart rate for fifteen minutes or longer in order to receive maximum results. See the chart on the back page to determine your heart rate per minute depending on your age. Aerobic exercise improves the respiratory and circulatory systems. It strengthens the heart muscle, makes arteries and veins more elastic and lowers blood fat and body fat levels.

Aerobic exercise is the best type of activity to reduce pain by improving circulation and respiration. Another type of exercise is Pilates (Proximal Integrating Latent Agile Toning Exercise). Pilates is a method of stretching and strengthening the body. Though it is a physical activity, Pilates is not a cardiovascular (heart and circulation) workout. Pilates can be done in addition to aerobic exercise and resistance training. Tai Chi Chuan, a Chinese martial art exercise stimulates nerves, lowers blood pressure and relieves stress while gently toning muscles without strain.

Anaerobic exercise is the opposite of aerobic exercise and is characterized by short bursts of energy. Sprinting is an example of an anaerobic exercise. Although anaerobic exercise does develop muscle strength it does not improve circulation and respiration. The four types of exercises; isotonic, stretching, aerobic and anaerobic are all important in the development of a good workout routine.

Exercise to Treat Your Type of Pain

Arthritis is one of the types of pain that can be helped with a good exercise routine. Arthritis is defined as a group of diseases that affects joints or their component tissues. Rheumatoid Arthritis causes changes to take place in the joint structures that increasingly impair and limit motion. Degenerative arthritis is an aging process that often becomes apparent after the age of 40 or sooner following injury or certain conditions. Exercise is helpful in managing arthritis pain. It moves the blood flow to the affected joints and keeps them flexible. It increases the oxygen available to promote mineral absorption by the bones. Swimming as a part of physical therapy is a great example of a helpful exercise for those patients affected by arthritis.



Back pain is another type of pain that occurs as either a degenerative problem or as a hereditary disease. Stresses on the body caused by obesity, injury, improper lifting, poor posture, age or a sedentary lifestyle, can increase back pain. Herniated disc and degenerative disc disease are common organic causes of back trouble. When prolonged bed rest occurs after back injury this negative effect would weaken the body's natural ability to fight off pain and rehabilitate painful areas. Exercise is a means that may lead to weight loss which will decrease pain and stress to the spine. Muscles are strengthened and pain caused by injury or strain is relieved.

Neuropathic pain is shooting pain that extends along the course of one or more nerve paths. This type of pain is usually described as being sharp, burning, sudden and intermittent. Sometimes infections or other diseases can damage the peripheral nerves (those outside of the spinal cord) and may cause some form of neurogenic pain. Desensitization through physical therapy and stretching exercises can help with this type of pain.

Migraine headaches are a type of vascular headache caused by overstrained blood vessels in and around the head. A moderate aerobics program can lessen the frequency and intensity of the migraine when it occurs.

Malignancy (cancer) pain can be reduced by exercises that promote relaxation which can reduce the stress of disease and the accompanying pain of tension.

Musculoskeletal pain refers to our body's complex system of bones that are bound together by ligaments and are moved, supported, and protected by muscles. These bones meet at joints that are enclosed in sleeves of tough, fibrous tissue that secrete a special lubricant called synovial fluid. The ends of the bone are protected by smooth yet tough cartilage. Exercise strengthens supportive muscles that hold weakened bones and ligaments in place. Exercise that reduces weight will decrease pain caused to this system.

Psychogenic pain can be caused by depression, anxiety, trauma or unresolved grief. Aerobic exercise such as walking or bicycling that increases the heart rate and circulation are recommended to improve a person's sense of well being daily and decrease psychological pain.