Why you should weight train

By Dr. Michael Colgan

Weights Build Muscle

Between the ages of 20 and 40 the average female loses 3.6 kg of muscle and gains 10 kg of fat. Between 20 and 80 the average male loses one quarter of his muscle mass. Running, cycling or other aerobic sports will not prevent this loss. In a representative study of the evidence, researchers at McMaster University, USA, compared a ten-week program of weight training plus aerobic exercise against aerobic exercise alone. The aerobic group showed only a 2% increase in cardiovascular capacity and an 11% increase in endurance. The weight training plus aerobics group showed a 15% increase in cardiovascular capacity and a massive 109% increase in endurance. For strength the results favoured weight training even more. The aerobics group showed no increase in arm or leg strength. The weight training group showed a 43% increase in arm strength and a 22% increase in leg strength.

Weights Boost Fat Loss

Muscle is the engine in which body fat is burned for fuel, so if you don't have much muscle you can't lose much fat. A representative study published in the American Journal of Clinical Nutrition compared the levels of body fat in groups of women, showing sedentary women have 21% body fat, aerobic exercisers have 16% body fat, and resistance exercisers have 14% body fat.

Weights Grow Bone

The bone benefits of weight training are well illustrated by a study of bone density in weightlifters from 14 different countries, compared with healthy subjects who didn't lift weights. On average the weightlifters' bones were 46% more dense and an estimated 50% stronger. Bone strength and muscle strength are highly correlated not only in weightlifters but also in healthy young women. A study at Stanford University showed clearly that about 20% of bone mineral density is dependent on maintaining muscle. A new study reported in February 2000 in the British Journal of Sports Medicine shows that even in elderly women, a one-year weight training program increased their strength by 19-29%, with a concomitant increase in bone density.

Weights Improve Immunity

Immune strength depends on availability of the amino acid glutamine, and your muscles have to supply the glutamine to your immune system in order for it to work. The more muscle you have the more abundant the glutamine supply, and, other things equal, the better your immune system works.

Weights Combat Diabetes

New studies published between 1995 and 1999 show that weight training has an unexpected benefit - it improves glucose tolerance in patients with Type 2 (adult-onset) diabetes. In one of these studies, post-menopausal women with diabetes followed a weight training program for four months. Their glucose sensitivity to a challenge improved by an average of 29%.

Weights Whack Arthritis

At Tufts University, researchers gave patients with rheumatoid arthritis 12 weeks of high-intensity weight training. Results showed significant reductions in joint pain and fatigue and a big gain in strength. Another study at the University of Nebraska gave a group of patients with osteoarthritis of the knee an 8-week strength training program. Another patient group with the same arthritis was used as a control. Results showed that the weight work caused a significant decline in arthritis activity.

Weights Help Your Heart

Research shows that weight training causes fewer heart symptoms than traditional rehabilitation exercises like fast walking, jogging or cycling. It also yields better coronary artery flow, greater muscle strength, greater submaximal endurance and less fatigue. In one new study, a 12-week weight program was added to a conventional heart rehabilitation aerobic exercise program. The group doing weights plus aerobics showed much greater increases in strength (90% as opposed to 9% on aerobics alone). They also lost more body fat (2.8 kg as opposed to 1.3 kg). And they showed greater improvements in endurance.