

# Strength Training: Twelve Reasons Every Adult Should Do Strength Exercise

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*During the past* few years more and more studies have shown that sensible strength training produces many health and fitness benefits. Key researchers, such as Dr. William Evans and Dr. Ben Hurley, have provided a wealth of data on the positive physiological responses to basic programs of strength exercise. Based on presently available research, consider the following 12 reasons why every adult should perform regular strength exercise.

## **Benefit One: Avoid Muscle Loss**

Adults who do not strength train lose between 5-7 pounds of muscle every decade (Forbes 1976, Evans and Rosenberg 1992). Although endurance exercise improves our cardiovascular fitness, it does not prevent the loss of muscle tissue. Only strength exercise maintains our muscle mass and strength throughout our mid-life years.

## **Benefit Two: Avoid Metabolic Rate Reduction**

Because muscle is very active tissue, muscle loss is accompanied by a reduction in our resting metabolism. Information from Keyes et al. (1973) and Evans and Rosenberg (1992) indicates that the average adult experiences a 2-5 percent reduction in metabolic rate every decade of life. Because regular strength exercise prevents muscle loss it also prevents the accompanying decrease in resting metabolic rate.

## **Benefit Three: Increase Muscle Mass**

Because most adults do not perform strength exercise, they need to first replace the muscle tissue that has been lost through inactivity. Fortunately, research (Westcott 1995) shows that a standard strength training program can increase muscle mass by about 3 pounds over an 8 week training period. This is the typical training response for men and women who do 25 minutes of strength exercise, 3 days per week, and represents an excellent return on a time-efficient investment.

## **Benefit Four: Increased Metabolic Rate**

Research reveals that adding 3 pounds of muscle increases our resting metabolic rate by 7 percent, and our daily calorie requirements by 15 percent (Campbell et al. 1994). At rest, a pound of muscle requires about 35 calories per day for tissue maintenance, and during exercise muscle energy utilization increases dramatically. Adults who replace muscle through sensible strength exercise use more calories all day long, thereby reducing the likelihood of fat accumulation.

## **Benefit Five: Reduce Body Fat**

Campbell and his co-workers (1994) found that strength exercise produced 4 pounds of fat loss after 3 months of training, even though the subjects were eating 15 percent more calories per day. That is, a basic strength training program resulted in 3 pounds more lean weight, 4 pounds less fat weight, and 370 more calories per day food intake.

## **Benefit Six: Increase Bone Mineral Density**

The effects of progressive resistance exercise are similar for muscle tissue and bone tissue. The same training stimulus that increases muscle myoproteins also increases bone osteoproteins and mineral content. Menkes (1993) has demonstrated significant increases in the bone mineral density of the upper femur after 4 months of strength exercise.

## **Benefit Seven: Improve Glucose Metabolism**

Hurley (1994) has reported a 23 percent increase in glucose uptake after 4 months of strength training. Because poor glucose metabolism is associated with adult onset diabetes, improved glucose metabolism is an important benefit of regular strength exercise.

## **Benefit Eight: Increase Gastrointestinal Transit Time**

A study by Koffler (1992) showed a 56 percent increase in gastrointestinal transit time after 3 months of strength training. This is a significant finding due to the fact that delayed gastrointestinal transit time is related to a higher risk of colon cancer.

## **Benefit Nine: Reduce Resting Blood Pressure**

Strength training alone has been shown to significantly reduce resting blood pressure (Harris and Holly 1987). Another study (Westcott 1995) has revealed that strength plus aerobic exercise is also effective for improving blood pressure readings. After 2 months of combined exercise, the program participants dropped their systolic blood pressure by 5 mm Hg and their diastolic blood pressure by 3 mm Hg.

## **Benefit Ten: Improved Blood Lipid Levels**

Although the effects of strength training on blood lipid levels needs further research, at least 2 studies (Stone et al. 1982, Hurley et al. 1988) have revealed improved blood lipid profiles after several weeks of strength exercise. It is important to note that improvements in blood lipid levels are similar for both endurance and strength exercise (Hurley 1994).

## **Benefit Eleven: Reduce Low Back Pain**

Several years of research on strength training and back pain conducted at the University of Florida Medical School has shown that strong low-back muscles are less likely to be injured low-back muscles. A recent study by Risch (1993) found that low-back patients had significantly less back pain after 10 weeks of specific (full-range) strength exercise for the lumbar spine muscles. Because 80 percent of all Americans experience low back problems, it is advisable for all adults to properly strengthen their low back muscles

## **Benefit Twelve: Reduce Arthritic Pain**

According to a recent edition of the Tufts University Diet and Nutrition Letter (1994), sensible strength training eases the pain of osteoarthritis and rheumatoid arthritis. This is good news, because most men and women who suffer from arthritis pain need strength exercise to develop stronger muscles, bones, and connective tissue.

## **Summary**

There are 12 physiological reasons to perform regular strength exercise. On a more basic level, it is important to understand that proper strength training may help us to look better, feel better, and function better. Remember that our skeletal muscles serve as the engine, chassis, and shock absorbers of our bodies. Consequently, strength training is an effective means for increasing our physical capacity, improving our athletic performance, reducing our injury risk, enhancing our personal appearance, and improving our selfconfidence. Everyone can benefit from a sensible program of strength exercise.

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## **References:**

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