

### Resistance exercise training guidelines part I



Also known as weight or strength training, resistance training is part of creating a well-rounded, total body exercise program. Muscular strength, muscular endurance, cardiovascular endurance, flexibility, body composition and balance are the components of fitness.

Three of the six categories are specific to muscle tissue, but I have found that working with young athletes and active adults, muscular strength and endurance is an area often not worked on or focused on. As we age, we start to lose strength at a greater rate, consequently affecting our range of motion, ability to perform daily tasks and maintain normal body weight. So begins the vicious cycle of inactivity, which then leads to illness and/or injury.

Studies show that doing some type of resistance training of the major muscle groups two times a week will decrease your risk of diseases like osteoporosis, diabetes and heart disease.

Muscular strength is the ability of a muscle to exert force, while muscular endurance is the ability of a muscle to contract repeatedly over time. Both of these fitness components are needed to do daily activities like lifting your groceries out of your car, lifting your young children or grandchildren, picking yourself up when you fall, mowing the lawn, taking a walk or a bike ride. The list goes on and on, how we do not realize how much we require muscular strength even in our daily lives.

Needless to say, being strong helps us feel better, but it also can help us look better, too. Increasing lean body mass muscle helps to burn more calories and can then help in weight loss or maintenance.

How do we get in shape or get stronger? Our bodies follow the three basic principles of exercise: principle of specificity, principle of overload and principle of adaptation. Specificity refers to the S.A.I.D. principle (Specific Adaptation to Imposed Demands), where the body will respond to specific demands made on it.

## Extension Corner

Written by Tracy Trumper

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Overload deals with the idea that strength or fitness will not improve if the body is not overloaded just a little bit more than it is used to. Thus, one must vary the frequency of exercise, intensity of exercise, time of exercise and type of exercise. Finally, adaptation refers to how the body gets used to doing the same thing, so even small changes causes the body to have to adjust and therefore become more fit.

Here are the general resistance exercise training guidelines:

1. Always warm up first with 5-10 minutes of movement to increase blood flow.
2. Don't train the same muscle group more than two days in a row.
3. Multi-joint exercises should be performed before single-joint exercises (squats vs. leg extension on a machine).
4. Perform the hardest exercises first; the easiest/simplest exercises, do last.
5. Train muscles you want to emphasize the most early in the workout.
6. Train abs/back muscles after the exercises that use those muscles (to reduce injury).
7. Do new exercises early in the workout (to reduce injury).
8. If you are new, do machine exercises before free-weight exercises.

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9. Do free-weight exercises before machine exercises if both are done in the same workout.

10. Cool down and/or stretch at the end of the workout.

Now that you know some of the basics, whether you are a novice or someone who has done strength training, think about starting some type of resistance training program twice a week.

There are so many options: free-weights, nautilus machines, resistance tubing or bands, or you do not even need a weight to start out with. Just moving your body against gravity will increase strength, like a squat or lunge. Call me at 970-854-3616 if I can help you get started.

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