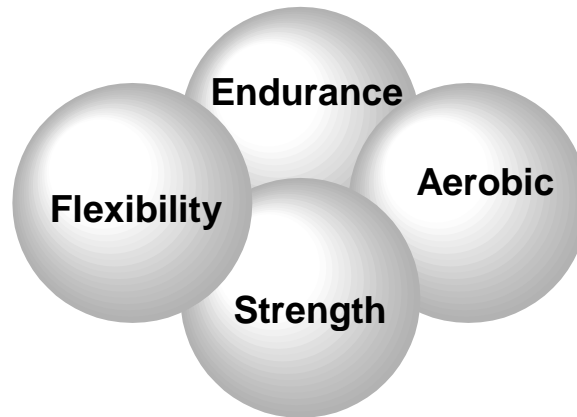




Session 16: Strengthen Your Exercise Program

Include Resistance Training as Part of Your Weekly Exercise Program



Well-rounded physical fitness is made up of four basic components: cardiovascular fitness (aerobic), flexibility, muscular strength, and muscular endurance. Each component of physical fitness can be achieved with different types of physical activity. Aerobic activity can improve cardiovascular fitness and may have the greatest impact on weight control and cardiovascular disease risk. Resistance training (also known as strength training), which is defined as any type of physical activity in which you move your muscles against resistance, will improve muscular strength and endurance, improve your body's ability to handle insulin, along with several other health benefits.

Your body is challenged everyday to perform many tasks that require a certain level of muscular strength and endurance. A safe resistance training program can help you maintain a lifetime of physical independence by providing many proven benefits.

Benefits of Resistance Training

Increases Muscular Strength and Endurance

- A program of consistent resistance training will allow you to perform daily activities, such as carrying groceries, yard work, and shoveling snow with greater ease.
- Enhanced skeletal muscle strength and endurance can help prevent exhaustion and soreness associated with strenuous activities of daily living.

Minimizes Loss of Muscle Tissue Associated with Aging

- Muscle mass naturally diminishes with age. Resistance training can help in preserving or enhancing your muscle mass, at any age.
- Additionally, as you lose muscle, your body burns calories less efficiently, which can lead to increases in body fat and make it difficult to lose weight. The more toned your muscles, the easier it is to manage your weight.

Assists with Maintenance of Bone Strength

- By applying a moderate amount of stress to your bones, resistance training increases bone density and reduces the risk of osteoporosis.
- If you already have osteoporosis or reduced bone density, resistance training can lessen its impact.

Reduces Your Risk of Injury

- Building muscle protects your joints from injury. Specific types of resistance training, such as free weights, resistance bands, and body weight exercises can enhance balance, coordination, and posture.
- Stronger muscles equal better mobility and balance, leading to a lower risk of falling or being injured.

Improves Your Sense of Well-Being

- Resistance training can improve your body image, boost self-confidence, and reduce the risk of depression.
- Regular resistance training can improve sleep patterns and aid in a better night's rest.

How about it's Impact on Diabetes?

- Resistance training can help improve insulin sensitivity and aid in blood glucose control.
- The combination of resistance training **and** aerobic exercise will provide even greater benefits than either alone. For this reason, the GLB program strongly recommends that you perform both regularly. This is in line with the national recommendations as mentioned below.

In 2008, the Physical Activity Guidelines for America were developed by several organizations including the US federal government, the American College of Sports Medicine, and the American Heart Association. Acknowledging the many benefits of resistance training, these guidelines clearly state that, "in addition to aerobic exercise, adults should perform muscle-strengthening activities that involve all major muscle groups on 2 or more days per week."

Remember that resistance training is only one component of your overall exercise program. It should **complement** and **not replace** aerobic physical activity.



How to Improve Muscular Strength and Endurance

The F.I.T.T. Formula, which we discussed several times throughout the physical activity portion of the GLB intervention program, can also be used here to identify key components of a resistance training regimen necessary to improve your muscular strength and endurance in a safe manner.

	What to do
Frequency	<ul style="list-style-type: none">• 2-3 days/week non-consecutive days
Intensity	<ul style="list-style-type: none">• 8-10 exercises*• 12-15 repetitions**• 1-3 sets***
Type	<ul style="list-style-type: none">• Machines, free weight, fitness bands, etc.
Time	<ul style="list-style-type: none">• 15-60 minutes

***At least one exercise should be performed on each major muscle group (e.g. chest, back, quadriceps, hamstrings, shoulders, biceps, triceps, abdominals)**

****A repetition is taking one exercise through its complete range of motion one time**

*****A set is a group of repetitions consecutively performed before resting**



The Essentials of Any Resistance Training Program

What to do before, during, and after a working? Like aerobic training, it is important that you warm up and cool down, but here are some additional guidelines for resistance training!

Before:

- Check your equipment
 - Inspect machines, free weights, and bands/tubes to ensure they are in good condition
- Have a plan
 - Know what joints and muscles each exercise targets
 - Know how to modify or eliminate exercises that may be inappropriate for you
- Get comfortable
 - Wear clothing that allows you to move freely through a complete range of motion
- Get warmed up!
 - Perform low intensity exercises (e.g. walking in place) and gentle stretches as a good warm up.
- Be Secure!
 - When using fitness bands, it is important to secure the band in a door with a proper anchor
 - You must also make sure that you are able to maintain a good grip of the band throughout the exercise.

During:

- Stay in control
 - Always use proper form (do not use momentum)
 - Use slow and controlled movements (never fast or jerky motions)
- **NEVER** hold your breathe
 - Breathe throughout the exercise, especially when moving against any resistance
- Rest
 - Rest for 30-60 seconds in between sets

After:

- Cool down
 - Perform low intensity exercises (opposite of a warm-up)
 - Allow your body to ease back down to where you were before you began the workout
 - Perform gentle stretches

NO PAIN, NO GAIN is a MYTH, but SORENESS may occur.....

We've all heard the expression "No pain, no gain," but did you know that's actually not true? Many people think if their muscles don't hurt, they're not having a quality workout. This is way off base. While resistance training can be intense, and some level of discomfort or soreness may occur, pain is not required for a successful workout. It's also important to note that pain can be a warning sign of an exhausted muscle or torn ligament.

Some soreness is normal. When performing resistance training, it is normal to experience some soreness the next day. The good news is that there are steps you can do to decrease soreness:

- Progression is the key! Remember to always take it **SLOW** when first starting out. You want to gradually work up to performing 3 sets of 12-15 repetitions. If this is your first time performing resistance training or your first time you're getting back into after taking a break, start out with 1 set of 12 repetitions. Over time, you can start to increase the number of sets and repetitions.
- **REST** is essential! Make sure you allow yourself the opportunity or rest in each workout. You do not want to perform resistance training on the same muscles two days in a row.
- **DON'T** skip out on the warm up and cool down!

A Sneak Peak at What's Ahead (The Next Session)



To do:

The Basics:

- Keep track of your weight.
 - Weigh yourself at home daily or at least once a week at the same time of day.
 - Record your weight in the Keeping Track book.
- Keep track of what you eat and drink using the Keeping Track book.
- Keep track of your physical activity in the Keeping Track book.
- Be physically active for at least 150 minutes per week.

Challenge Yourself:

- Pick a resistance training activity. Add this to your exercise program twice a week.

Additional Notes:
