

HEALTH TIP

Stressed out from work, house chores, kids, spouse, etc?

The best way to deal with stress is to **exercise!**

Exercise gives the mind and body a reprieve and rejuvenates the body.

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Training to be the "Ultimate Weekend Warrior"

Many Americans do not have the time to exercise during the week due to job, family and other responsibilities. The weekend provides more time to exercise. The individuals, known as "**weekend warriors**" usually end up exercising too vigorously for what their body can currently handle. As a result injuries usually occur. I like to think of this pattern as taking one step forward and two steps back.

Inactivity during the week prepares the body to be just that, inactive. The muscles tighten up and gradually lose strength. When the weekend arrives, you call upon these muscles to allow you require a certain amount stabilization, and flexibility. don't have those requirements become injured. **Injuries comes overloaded and** continuing with activity greatly injured.

How do we prepare the **CISE!!** By exercising you endurance and flexibility handle higher intensity ac-

An exercise program done a long way to helping de- injured during your weekend program should include exer- lar efficiency, muscular workout with around 20-30 your choice (treadmill, elliptical, swimming, biking, etc.), 30 minutes of resistance training, and 10 minutes of light stretching.

Below is an **example program:**

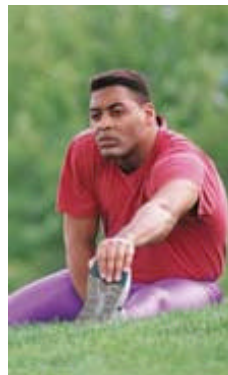
Cardio: 20-30 Minutes (Treadmill, Bike, Elliptical, Stepper, etc.).

Strength: 2-3 sets/ 12-15 repetitions, focus on exercises that use the major muscles of the body.

Flexibility: at least 20 seconds static hold for each stretch (quads, ham strings, chest, back. Hips, calves and glutes).

By preparing during the course of the week, you can be assured that you will become the **Ultimate Weekend Warrior.**

authored by dave radin



Weekend warriors are at an increased likelihood to become injured during intense physical activity.

to perform complex activities that strength, cardiovascular endurance, Guess what? More than likely you ments and you will at some point **can happen when the body be- fatigued.** Once in this state, con- increases your chance to become

body for weekend activity? **EXER-** can build up your body's strength, which in turn will allow your body to tivity.

at least 2-3 times a week can go crease your chance becoming in- warrior activity. Your exercise pro- cises to improve your cardiovascu- strength, and flexibility. Start your minutes of cardiovascular activity of

LOOK!

Did you know if you refer friends and family who sign up for a training package, you can receive complimentary sessions!! For more information, ask your trainer the next time you are working out, or call either the Mooresville or Cornelius locations for more information.

Fitness Quiz

Which muscle gives you the ability to stand on one leg?

- A. Rectis Femoris
- B. Hamstrings
- C. Gluteus Medius

Hot Topics

Men Get Bigger, Women Get Stronger In Response to Strength Training

Adults who begin resistance training often experience **vastly different gains** in strength and size than counterparts who are on similar programs. The purpose of this study was to document the range of responses in men and women to a **progressive resistance program**.

Five hundred eighty-five subjects (342 women, 243 men) ranging in age from 18-40 served as subjects. Subjects participated in **12 weeks of progressive** resistance training of the **non-dominant elbow flexors**. Testing consisted of evaluating the isometric and dynamic strength of the elbow flexors, as well as measuring the **cross sectional area** of the biceps brachii, as determined by MRI.

The results showed that increases in the **muscle cross sectional area ranged from 2% to 59%**. Isometric strength increases ranged from 32% to 149% and dynamic strength increases ranged from 0% to 250%. **Men experienced greater gains in the muscle's cross sectional area than women did, but women had greater gains in relative strength than men.**

Results of this study show a **wide range of strength and size gains** in response to resistance training for men and women, with some participants showing no change and others showing dramatic changes. **Men increased slightly more in size than women**, but women showed considerably **more increase in relative strength than men**. Fitness Professionals should use this information when discussing training benefits with their clients to allow clients to be aware of the great potential for individual variation in response to an exercise program, keeping in mind that many other factors can affect their results including **gender, age, endocrine status and diet**.

Hubal, Monica. et al. Variability in Muscle Size and Strength Gain after Unilateral Resistance Training. Medicine & Science in Sports & Exercise. 2005, 37(6), 964-972.

www.exercisetc.com

Exercise of the Month—Plank, stability ball

Preparation:

- Lie firmly in the prone position with elbows placed beneath shoulders on stability ball

Movement:

- Engage inner abdominals and pelvic floor muscles to assure spinal stabilizations throughout the exercise.
- Hold plank for chosen amount of time.



FACTOID

One of the largest organ in the body is the **brain**, which contains an estimated **100 billion neurons!!**

Salvo, Susan, Massage Therapy Principles and Practices, Second Edition.

Trainer Spotlight

Janet Laursen

MS, RD, LDN

Registered Dietician and Dietary Counselor

Jan holds a Masters of Nutrition from Drexel University and has helped countless individuals improve their quality of life and enhance their physical performance. Whether your facing a challenging weight loss goal, need counseling on therapeutic nutrition (Diabetes, Heart Disease, Osteoporosis, etc) or want to know how to eat for optimal sports performance Jan has the education and experience to help you meet your goals.

Get Moving and Save Strokes!!

Whether you walk the course or ride a cart, a round of golf can leave the aerobically unfit golfer dragging by the late holes. Aerobic training improves lung capacity, circulation, and muscular endurance and leads to better performance and better overall health. The benefits of being aerobically fit aren't limited to physical performance; studies have shown aerobic exercise to improve resistance to mental stress (a major plus for the golfer). A dedicated aerobic training plan will help you save stokes by allowing you to maintain peak physical and mental performance throughout the round.

Aerobic conditioning should be performed three to six days per week for at least 20 to 30 min at your target heart rate. Training at the proper intensity is the key to aerobic training. During exercise we physically stress our body and it is our body's adaptation to that stress that makes us healthier. This is why a leisurely walk does not qualify for aerobic training; unless we push ourselves our training stimulus will not illicit a physiologic adaptation. Adaptations made by the heart and lungs in response to aerobic training allow them to work more efficiently by increasing their capacity to pump blood and utilize oxygen. This improved circulation and oxygenation allows the body to perform more work, at higher levels with less stress.

Determining Target Heart Rate

Method 1: Using a percentage of Maximal Attainable Heart Rate:

To determine your target heart rate you must first find your predicted Maximal Attainable Heart Rate also known as Heart Rate Max (HRM). To calculate the predicted (HRM) you subtract your age from 220. General guidelines for Target Heart Rate (THR) using this method are between 60 % HRM at the low end to 90 % HRM at the high end. Once you know your HRM simply multiple by .6 and .9 to find your target heart rate range.

Method 2: Target heart rate as a percentage of Heart Rate Reserve (HRR)

Using this method is a bit more accurate as it takes into considerations ones normal resting heart rate. Heart rate reserve is the number of beats per minute between your normal resting heart rate and your maximal attainable heart rate. To calculate target heart rate using this method we use what's known as the Karvonen formula.

Karvonen formula: Target heart rate (THR) = (exercise intensity x HRR) + Resting Heart Rate.

General guidelines for THR (target heart rate) using this method are 50 % HRR - 85 % HRR.

Take your pulse to determine your Resting Heart Rate. To find your heart rate reserve (HRR) subtract your resting heart rate from your Heart Rate Max. Multiply the HRR by .5 to find lower limit, and multiply by .85 to find upper limit. Then add the resting heart rate back to that number to find the final result.

Generally, current fitness level determines where in the target range we should be exercising. Monitor your heart rate during aerobic exercise. It may be necessary to gradually work your way up to the recommended duration and target heart rate. If you're new to aerobic training or haven't exercised in a long time start out slowly. Gradually increase the pace and duration of your aerobic workouts. Before you know it you will be working at the recommended intensity levels and reaping the full benefit of your aerobic training. Include activities you enjoy in your aerobic program. Activities such as bicycling, tennis, basketball, and swimming are every bit as effective as jogging or stair stepper machines, and they are often more fun. If you are looking to reduce body fat, some studies suggest aerobic training first thing in the morning may stimulate an increase in fat burning throughout the entire day. Research has also shown that the general health benefits of aerobic training can be gained if you break your daily sessions into two or more shorter bouts. Regardless of when you do it, aerobic exercise will get you looking, feeling, and playing better

Remember these are general guidelines; a qualified healthcare or fitness professional may be able to give you a more specific aerobic training prescription. It is recommended to consult your physician before starting an exercise program if you are a male 45 or older or a female 55 or older, have experienced chest pain, dizziness, rapid heart beat, shortness of breath, or have been diagnosed with cardiac, pulmonary or metabolic disease.

authored by bill scibetta

What's That???

The term **homeostasis** is used to refer to a condition or state in which the body is able to regulate its internal environment and maintain stability. **Hormones** are used to regulate the body and its systems.

Quiz Answer:

C. Gluteus Medius

The Glute Medius abducts and medially rotates the hip, but also stabilizes the hip to give you the ability to stand on one leg.

Chef's Corner...

Barbecued Pork Sandwiches with Red Onion on Focaccia

This recipe serves: 4

Ingredients

For the barbecued pork:

2 teaspoons olive oil
4 center cut, boneless pork loin chops, about 3-4 ounces each
1 red onion, sliced about 1/2-inch thick
salt to taste
freshly ground black pepper
1/4 cup barbecue sauce

For the sandwiches:

1/2 cup fat-free, whipped cream cheese
2 teaspoons freshly chopped rosemary
4 small loaves of focaccia, sliced in half
4 large lettuce leaves (green leaf, bibb or romaine), shredded
4 large slices of ripe tomato, sliced thin



Cooking Instructions

For the barbecued pork:

1. Preheat the grill to medium-high.
2. Brush the pork chops and onion slices with olive oil and then season with salt and pepper. Cook them on the grill, about 5-6 minutes per side for the chops, depending on the thickness and about 2-3 minutes per side for the red onion. Use a spatula to turn the onions on the grill to keep the rings together. During the last 2 minutes of cooking, brush the pork chops with barbecue sauce. Transfer the chops to a cutting board and slice on the bias.

For the sandwiches:

3. In a small mixing bowl, combine the cream cheese and rosemary. Add salt and pepper to taste.
4. Lay out the focaccia slices on a work surface in front of you. Divide the cream cheese mixture among the sandwiches, spreading it out in the middle of each slice. Divide the lettuce among the sandwiches, top with a few slices of pork, a slice of grilled onion and a slice of tomato. Place the focaccia tops on each sandwich.
5. Slice the sandwiches on the diagonal and serve.

Serving Size: 1 sandwich

Nutrition Information

Number of Servings: 4

Per Serving			
Calories	491	Carbohydrate	36 g
Fat	9 g	Fiber	3 g
Protein	64 g	Saturated Fat	2 g

Our Training Philosophy:

**"M.P.E.
TRAINING"
MAXIMUM
PHYSICAL EF-
FICIENCY**

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"Back" Page

The Do's and Don'ts of Exercise

Do:

1. Go slow, never use momentum..
2. When Standing, always keep your knees bent.
3. Brace your abdominals at all times. EVERY EXERCISE SHOULD BE AN ABDOMINAL EXERCISE.
4. Keep your head up and chin slightly retracted.
5. Pause and squeeze at the midrange of each repetition.
6. Keep your body still and under control (neutral).
7. Learn how to use your body before using a machine.
8. Stand and exercise whenever you can.

Do Not:

1. Use momentum, jerk or throw the weights.
2. Bang the weights together or drop them on the floor.
3. Lock your knees.
4. Shrug your shoulders and/or drop your head.
5. Arch your back or lean back.
6. Not use your abdominals.
7. Rest more than 60 seconds between sets.
8. Continue with the exercise if you can no longer control your body or the weight.
9. Be afraid to use your bodyweight as resistance instead of the machine.
10. Think that more is better.
11. Ever push or pull anything behind your head.
12. Use a back extension.
13. Think that lying on your back or sitting will make your strong.
14. Be afraid to use "functional movement" machines
15. Be afraid to lift heavier weights, 15-20 repetitions is not always the best.

Authored by bryan fass