

HEALTH TIP

Move, Move, Move!!

Make it a daily challenge to move around by either taking the stairs, walking the dog, playing with your kids, or mow the lawn. It is not only good for you, but is a great way to dis-tress!!

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Interval Training for Improved Cardiovascular Performance

I hear it all the time, "How can I improve my endurance the quickest with the least amount of time needed?" While gradually increasing your overall time spent with your chosen activity is a great way to improve cardiovascular endurance, interval training is a way to accomplish the same goal in less time, and greatly increase your overall endurance.

The cardiovascular system responds the same as muscles involved with strength training. By placing an increased demand on the system, the heart and lungs must adapt. This improves cardiovascular efficiency and the activity becomes easier to perform.

Interval training is alternating periods of high intensity (faster speed, hills, sprints, etc.) with periods of lower intensity ("normal pace"). Periods of intense cardio activity increase the heart rate into what is known as **lactate threshold**. Lactate threshold is the point where the body increases lactate production. During this period, the muscles are using primarily glycogen as being used, lactate production increases and fatigue sets in. Lactate is in well trained athletes and individuals. The best way to threshold is to have an test. If that is not an op-Perceived Exertion (RPE) should feel "somewhat hard shown that training at or threshold improves cardio-Conditioning coaches for interval training to improve ance on a regular basis.



Staggering periods of intense activity with rest can improve cardiovascular endurance.

As the glycogen is used, lactate production increases and typically 89-90% of HRR 50-60% in untrained determine lactate graded maximal oxygen tion, use the Rating of Scale. Your hard effort to hard." Research has above your lactate vascular performance. endurance athletes use their athletes perform-

Before beginning an interval program, a good cardiovascular base must be established. Once a base is established, interval training can begin.

Below is an example of an interval program:

Warm-Up: 5 mins.

Interval Workout: 2-4 minutes hard effort/ 2-4 minutes recovery for 20-30minutes

Cool-Down: 5-10 minutes as needed (include stretches at end of cool-down)

authored by dave radin

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 takes 40% strain off of the back?

- A. Gastrocnemius
- B. Latissimus Dorsi
- C. Transverse Abdominus

Hot Topics

Carbohydrate Supplementation Makes No Difference in RPE during Resistance Training

It is generally thought that carbohydrate availability mediates the rate of perceived exertion (RPE) during endurance exercise but it is currently not known if carbohydrate supplementation would also mediate RPE during resistance training. The purpose of this study was to determine the relationship between carbohydrate supplementation and RPE during resistance training.

Thirty strength-trained subjects took either a carbohydrate supplement or a placebo and lifted weights for 2 hours. The subjects performed 4 sets of 10 repetitions for 10 exercises with a 2 to 3 minute rest intervals between set; RPE was taken following the last repetition of each set for each exercise.

The study results showed that **carb supplementation had no effect on RPE during resistance training**, so it can be concluded that factors mediating RPE may be different between resistance exercise and endurance exercise. Fitness Professionals may still want to consider the use of carbohydrate supplementation for athletes and clients who train like athletes; **it may not make the resistance exercise feel any easier, but it may provide other physiological benefits such as increased recovery rates between training days.** Following training, carbohydrate availability is essential for increasing the rate of liver and muscle glycogen resynthesis.

Utter, Alan, C. et al. Carbohydrate supplementation and perceived exertion during resistance exercise. National Strength & Conditioning Journal. 2005, 19(4), 939-943.

www.exercisetc.com

Exercise of the Month—Stability Ball Push-Ups

Preparation:

- Lie prone over stability ball and walk out till body is in desired push-up position.

Movement:

- Engage inner abdominals and pelvic floor muscles to assure spinal stabilization.
- Lower into push-up position.
- Return to start position and repeat.



FACTOID

60,000

There are over 60,000 miles of blood vessels in the human body. (Blood vessels include veins, capillaries and arteries)

Trainer Spotlight

Stacey Baker

BS, LMT, CPT

Certified Personal Trainer/ Youth Fitness Director

Aside from holding a Bachelors degree in Exercise Science from Bowling Green State University, Stacey is also a Licenseed Massage Therapist. Prior to joining Precision Fitness, Stacy gained valuable experience developing youth and adolescent fitness programs while working in the athletic department at the prestigious Cannon School. Stacey is certified through the American Council on Exercise as well as the Aerobics and fitness Association of America. Stacey brings a wealth of knowledge and experience in the areas of Exercise Science and fitness and has helped individuals of all ages reach and maintain a higher level of fitness.

Sit Up Straight! It Will Help Your Game!!

What does it take to reproduce the perfect golf swing? Precise coordination of muscle contraction and relaxation, muscle balance and body awareness are all required to recreate a good swing. A prerequisite to these necessary components is good posture.

Good posture is a state of musculoskeletal balance that allows the body to move efficiently in a stress free range of motion. Faulty posture sets the body into a state of neuromuscular imbalance where flexibility and range of motion are limited (loss of power), neuromuscular pathways are disrupted (loss of control and consistency) and detrimental forces are placed on the spine and joints (increased chance of injury).

The cause of poor posture and muscle imbalance is a persistent use of certain muscles with inadequate activation or exercise of their opposing and / or supporting muscles.

Common muscle imbalances negatively affecting the golfer:

Throughout life we are constantly exposed to situations that place us in poor postural patterns. We grew up sitting in school hunched over a desk for most of our young lives. We finish school and begin our careers. Many of us now find ourselves sitting in poorly designed chairs hunched in front of a computer. Those of us who spend excessive time in our cars are often conditioned toward a slumped over lazy posture.

Lower Body Implications:

Commonly poor posture leads to a forward tilt of the pelvis, usually from tight hip flexors. This causes the abdominal wall to lengthen and weaken. As a result of the forward pelvic tilt, there is an excess curvature of the lumbar spine (lordosis) causing the spinal extensors to chronically shorten and weaken. Another detrimental effect of this forward tilt is a weakening of the gluteals. The glutes play a major role in hip extension and stabilization of the pelvis and lumbar spine. Without optimal strength and flexibility through the low back and hips it is impossible to get full rotation through the golf swing. To make up for less than optimal hip strength and flexibility many golfers subconsciously tend to over-swing. This over-swinging combined with tight muscles increase the chance of injury not only in the low back, but also the wrists, elbows, and shoulders.

Upper Body Implications:

In the upper body poor posture usually presents with rounded shoulders and a forward head. This chronically shortens the pectorals, neck extensors, upper trapezius, and shoulder internal rotators. This leads to a weakness in the upper back, neck flexors, and shoulder external rotators. This causes a constant strain on the ligaments of the shoulder and neck leading to dysfunction and increased chance of injury. Throughout the golf swing there is an intricate kinetic chain of events. These events include cervical and thoracic rotation and lateral flexion, as well as opposing scapular adduction / abduction and retraction / protraction. This type of muscle imbalances severely restricts movement through the neck and shoulders. This makes it nearly impossible to be in position to make a consistently good swing, but makes it very likely a golfer will develop injuries in the upper extremities and cervical spine.

So where does the golfer begin? Start by establishing and maintaining core strength, muscle balance and flexibility by participating in a well developed integrated exercise program. Increased muscular efficiency and flexibility allow you to increase power and consistency while drastically reducing chances of pain and injury. You will not only be playing better, but you will be playing better longer!

Keys to gaining and maintaining good posture:

- Stand up straight
- If your job requires prolonged sitting or travel, get up and stretch frequently
- Make sure computers monitors are centered and set at eye level.
- Maintain good core strength, muscle balance, and flexibility by participating in a well developed integrated exercise program.

authored by bill scibetta

What's That???

O₂ Deficit

Oxygen deficit is defined as the volume of oxygen missing within the first few minutes of physical work or the difference between steady-state oxygen requirement of a physical activity and the measured oxygen uptake.

Quiz Answer:

The answer is **c. Transverse Abdominus**. When properly fired, the TVA stabilize the spine and can reduce strain on the back by as much as 40%.

Chef's Corner...**Dijon Chicken and Pasta**

This recipe serves: 4

Ingredients

4 chicken breasts, boneless, skinless (4 to 6 ounces each), sliced in thin strips
 1 tablespoon olive oil
 1 teaspoon salt
 freshly ground black pepper
 1 small onion, finely diced
 4 cloves garlic, finely minced
 1/2 cup dry white wine
 1 1/2 cups chicken stock
 2 tablespoons Dijon mustard
 2 tablespoons fresh basil
 2 tablespoons low-fat sour cream
 3/4 pound pasta (rigatoni, penne or fusilli)

Cooking Instructions

1. Heat the olive oil in a large sauté pan over moderately high heat. Season the chicken with salt and pepper and add them to the pan. Sauté the chicken until golden on both sides, about 6 minutes.
2. Lower the heat and add the onions. Cook until the onions are translucent, about 5 minutes. Add the garlic and cook 1 minute more. Remove the chicken from the pan and set aside.
3. Turn the heat to medium, add the wine and reduce until it is almost completely evaporated. Add the chicken stock and reduce by half. Add the mustard and low-fat sour cream, and stir until the sauce is creamy.
4. Meanwhile, place a large pot of water on to boil. Add the pasta and cook about 12 minutes until al dente. Drain.
5. Add the chicken and pasta to the sauce and toss until coated. Sprinkle with the fresh basil.

Serving Size: about 1 1/2 cups

Nutrition Information

Number of Servings: 4

Per Serving			
Calories	591	Carbohydrate	69 g
Fat	9 g	Fiber	g
Protein	53 g	Saturated Fat	2 g
Sodium	1121 mg		

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Our Training Philosophy:

"M.P.E. TRAINING" MAXIMUM PHYSICAL EFFICIENCY

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"Back" Page

When Exercising Right Looks Wrong

For most of us we live in a black and white world. Good vs. evil, right vs. wrong. For a few of us the shade of grey is more appealing. In the world of fitness and exercise most people, novice and advanced exercisers (athletes) there is generally a correct and incorrect way to exercise. Just as in any other specialty or business there is much research that goes into doing the right thing from the wrong thing. There are consequences from doing the wrong thing and rewards from doing the right thing.

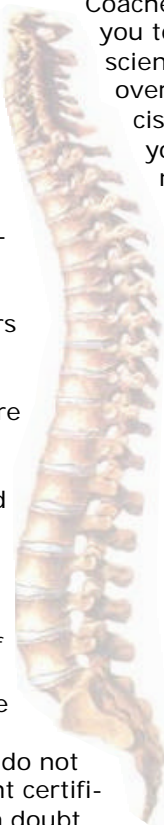
In fitness and exercise there are a scant few of us that understand the right way to exercise from the wrong way to exercise. Much research is done and continues to be done and interpreted on the correct way to exercise, the best way to fire the muscle or the fastest way to burn fat. But there is a very scary reality at play here. There is so much miss-information and so many accepted ways to do things, the wrong way, that when you see people doing the proper exercises it looks wrong to you.

But you are not at fault. You should know better have swayed called gym science prevails. Gym that if that fit or pretty person work, never mind that the exercise and injurious. To further sway manufactures continue to make the gym or your home. These make a specific pattern, this pattern con-joints and is posturally inefficient. the same exercises that hurt us.

It shock's me that Personal Trainers exercises to random people in the consequences of those exercises. do not have people in the gym stare I must look like an alien, what one leg. Why am I not jerking the ing. Why do I never use the seated machines that allow me to stand control my movements. Right exercise Yet for some reason trainers do search. Only a few certifications through that certifying company. If Read anything and everything per-chanics and kinesiology. It must be and articles from experts in their and Fitness, Men's health and Self do not lete try to find a trainer with current certifi-bly a four year degree and when in doubt online and research that trainers fitness certifi-I challenge everyone to open up to new exercises, we open ourselves to new technology daily. Technology has allowed us to better understand the body and what exercises are safe and effective vs. what we did in the past with no real reason why, but hey that big guy did it so it must work!

Coaches, Trainers and other people that you to the dark side. A thought process science is not science at all, it simply states over there is doing that exercise it must cise they are performing is dangerous your thought process exercise machine new and fancy machines to place in chines generally force you to move in versely is horribly damaging to your Why do we continue to recommend

continue to recommend dangerous gym with absolutely no regard for the There is not a day that goes by that I at me performing "correct" exercises. strange exercise am I performing on weight or using momentum, or swing-machines but I sure hog the cable and do not control my movements, I exercise is so right it looks wrong. not keep up with science and re-require any con-ed and much of it is you are a trainer reading this, read. taining to fitness, wellness, biome-research based and unbiased studies field. Go to seminars often. Muscle count. If you are an exerciser or ath-cations that require con-ed, prefera-ask for references or a resume. Go cation.



Authored by bryan fass