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**Fitness dictionary**

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# Outline

- **Fitness vocabulary** (*Copyright 2005-2010, iBody Fit, Inc. Online Body Management <http://www.ibodyfit.com/dictionary.php>*)
- **Fitness exercise vocabulary** (*Source: <http://fitness.freewebspace.com/exercise%20descriptions.htm>*)

# From anaerobic to body max index

<b>Anaerobic</b>	Without the presence of oxygen. Exercises done with an inadequate supply of oxygen are considered anaerobic and use the anaerobic system. Examples include quick, fast moves such as lifting a heavy weight or sprinting for a short time
<b>Antagonist muscle</b>	A muscle that acts in opposition to the muscle used in a contraction. The triceps is an antagonistic muscle in a bicep curl.
<b>Antioxidants</b>	Substances that may protect cells from damages caused by unstable molecules called free radicals. May help prevent cancer and heart disease. The five nutrients that have antioxidant properties are: beta carotene, vitamin C and E, sulfur, and selenium.
<b>Atrophy</b>	A decrease in the cross sectional size of a muscle. Your muscles get smaller due to a lack of activity from an injury or from sitting around all day and not exercising
<b>Basal Metabolic Rate</b>	Number of calories your body burns per day while at rest. This also signifies the minimum number of calories you need to sustain life. About 70 - 80% of your daily calories are burned here. Everyone's BMR is different. You can find your BMR through clinical tests or find an estimate through fitness formulas
<b>Body Fat Percentage</b>	Amount of fat on your body compared to fat free lean mass, expressed as a percentage of total body weight
<b>Body Mass Index</b>	A measure of body weight to body height. Helpful in determining your degree (or non degree) of obesity.

# From calorie to circuit training

<b>Calorie</b>	The amount of heat required to raise the temperature of one kilogram of water one degree Celsius. ...Not the definition you were looking for, but thats what it is.
<b>Carbohydrate</b>	An ESSENTIAL nutrient needed for muscular performance, brain, and central nervous system (CNS) functions. Carbohydrates sre the main source of energy for working muscles
<b>Cardio training</b>	An exercise term of used for training and improving the cardiorespiratory system (heart and lungs). Also a training method commonly used for excess body fat loss. Any type of exercise that elevates your heart rate for a period of time can be considered cardio training.
<b>Cardiorespiratory endurance</b>	The ability to perform large muscle(s) group movements over a sustained period of time. The capacity of the heart and lungs to deliver oxygen for sustained energy production. The longer you can continuously exercise, the better your cardio endurance.
<b>Cardiovascular fitness</b>	The health of the heart, lungs and circularatory system. Also the capacity of the lungs to exchange oxygen and carbon monoxide with the blood along with the circularatory systems ability to transport blood and nutrients for sustained period of time while exercising without excess fatigue.
<b>Cartilage</b>	A tissue that cushions bones and joints. Also found in various other parts of the body.
<b>Circuit training</b>	A series of exercises usually performed back to back or with little rest in between. A circuit can use machines, free weights, bands , body resistance, etc., depending on your physical condition and fitness goals. Most circuits consist of 8-12 exercises.

# From contraction to dynamic variable resistance

<b>Contraction (muscle)</b>	Occurs when you shorten or 'tighten' your muscle. The upward movement in a bicep curl is an example on muscle contraction.
<b>Creatine phosphate</b>	A high energy molecule stored in muscle cells. Can be used immediately to resynthesis ATP.
<b>Cross training</b>	A method of training that uses two or more modes of exercise. Lifting weights and then running is a good example of cross training.
<b>Dehydration</b>	Having less than optimal level of body water. Can occur from exercising in excessive heat, long exercise bouts, excess caffeine and alcohol or just not in taking enough fluids.
<b>Delayed onset muscle soreness</b>	Temporary soreness or discomfort in muscles after training. It is believed to be caused by microscopic tears in muscle or connective tissue. A few days off from training may be needed to repair.
<b>Dynamic constant resistance</b>	Strength training exercise and machines that provide a constant resistance throughout the exercise movement/ Most machines in gyms are dynamic resistance.
<b>Dynamic variable resistance</b>	Strength training exercise and machines that automatically vary the resistance throughout the exercise movement.

# From endorphins to food guide pyramid

<b>Endorphins</b>	Hormones released during exercise. They are normally produced in the pituitary gland to help reduce pain, anxiety and stress. Ever hear someone say they feel 'high' or elated after exercise? Part of that feeling is endorphins. (Part of that feeling is also a sense of success and accomplishment).
<b>Essential Amino Acids</b>	8 of the 20 different amino acids needed to make proteins. They cannot be made by the body. Therefore, they must be obtained through diet.
<b>Fartlek Training</b>	Similar to interval training, without a measured period of rest. Exercise stops and continues, determined by how you feel. Great for beginners and deconditioned persons.
<b>Fast twitch fiber</b>	One of the two types of muscle fibers in the body. (Slow twitch being the other). A large muscle fiber, it has a fast speed of contraction and high capacity for anaerobic glycolysis. Also known as type II muscle fibers. Everyone has fast and slow twitch muscle fibers. However, the percentages we all have are different. A higher percentage of fast twitch fibers will benefit a sprinter. A higher percentage of slow twitch fibers would benefit a marathon or long distance runner.
<b>Fat</b>	An essential nutrient providing energy and energy storage for your body. You do need fat in your diet. How much and what kind is key.
<b>Flexibility</b>	Possible range of motion of a joint.
<b>Food Guide Pyramid</b>	Published by the U.S. Department of Agriculture (USDA) and the U.S. Department of Health and Human Services, it is a guide intended to help the public with their daily food choices for healthy dietary goals.

# From glucose to Hyperextension

<b>Glucose</b>	The form in which all carbohydrates are used as the body's main energy source; a simple sugar.
<b>Heart Rate Reserve</b>	Working heart rate between your maximum heart rate and resting heart rate. Can be expressed as a percentage.
<b>Heat Exhaustion</b>	Most common heat-related illness. Symptoms are drop in blood pressure, nausea, feeling faint, feeling light-headed and vomiting. Can, and usually is, caused by (relatively intense) exercise in (relatively intense) heat and/or humidity.
<b>Heat Stroke</b>	This is a medical emergency. Serious form of heat illness due to heat overload and the body's inability to dissipate heat. Characterized by high body temperature (105 degrees F or more), dry, red skin, seizures, coma, and possibly death.
<b>Hernia</b>	A protrusion of the abdominal contents into the groin or through the abdominal wall. Be careful when exercising with a hernia. Be sure to inhale and exhale slowly and in a rhythmic pattern. Do not hold your breath while exercising. Ask your doctor for other precautionary measures before beginning an exercise program with a hernia.
<b>Herniated disc</b>	Condition where the disc between two vertebrae of the spine bulges backwards. Can compress a nerve root and compromise its function sometimes causing pain and/or numb feeling.
<b>Hyperextension</b>	Over extension of a joint. Not a good idea to do.

# From Hyperglycemia to Interval Training

<b>Hyperglycemia</b>	Abnormally high content of glucose in blood.
<b>Hypertension</b>	High blood pressure. 140/90 is said to be high blood pressure.
<b>Hypertrophy</b>	An increase in the cross-sectional size of your muscle due to progressive resistance in strength training. When you get bigger muscles due to a training program.
<b>Hyperventilation</b>	A quicker rate of breathing . May cause dizziness or even fainting due to abnormal loss of carbon dioxide from the blood.
<b>Hypoglycemia</b>	A deficiency in blood sugar caused by too much insulin, too little glucose, or over exercise in an insulin dependent diabetic.
<b>Intensity</b>	The workload level, or amount of energy expended per workout.
<b>Interval Training</b>	High, intense, short periods of exercise, followed by less intense, or even rest periods. Example: Thirty second sprint followed by 2 minute walk. Repeat.

# From Kinesiology to Measurement

<b>Kinesiology</b>	The study of anatomy and body movement in humans.
<b>Lactic Acid</b>	A waste by product of anaerobic ATP production. At high levels it inhibits contraction of muscle(s). It is known to cause localized muscle fatigue.
<b>Ligament</b>	Tissue that connects bone to bone.
<b>Maximum Hear Rate</b>	Highest heart rate your body can safely attain.
<b>Measurement</b>	<p>Take your Body Measurements before you begin an exercise program! It's a great idea. Whether your goal is weight loss or muscle increase, your initial reading will provide a basis for your gains. Start at the top and work down:</p> <p>Neck - Measure your neck at its largest girth, right over the Adam's apple. You should be standing for this measurement.</p> <p>Chest - Measure just above the nipple. Exhale before you measure. You should be standing for this measurement.</p> <p>Arms - Measure at largest girth. This can be taken 3 ways: relaxed with arms at side, relaxed with arm bent or flexed with arm bent. Try all three.</p> <p>Shoulders - Shoulders can be measured in two ways: Measure a straight line from the largest points on each shoulder across the chest or as a girth measurement all the way around your body. You should be standing for this measurement.</p> <p>Waist - Measure at the narrowest point or at the midway point between the top of the hip bone and the bottom of the rib cage. You should be standing for this measurement.</p> <p>Hips Hips - Measure your hips at the largest girth, and where the butt is protruding the greatest. You should be standing for this measurement.</p> <p>Thigh - Measure your thigh at the largest girth, just below the butt. Also try half way between the hip and knee joints. You should be standing for this measurement.</p> <p>Calf - Measure your calf at its largest girth. Seated if you are measuring yourself or standing if you have a partner.</p>

# From MET to Pilates

<b>MET</b>	A system for classifying physical activities.
<b>MHR</b>	Maximum Hear Rate. Highest heart rate your body can safely attain.
<b>MODE</b>	Type of exercise(s) chosen to attain desired goal.
<b>Monounsaturated Fats</b>	Monounsaturated fats are currently viewed as being "healthier" than other dietary fats used for cooking and eating. Monounsaturated fats are found in natural foods like nuts and avocados.
<b>Obesity</b>	An excessive amount of body fat. Usually 25% and higher for men and 35% and higher for women.
<b>One Rep Max</b>	Maximum amount of weight moved in specific exercise for only one repetition before temporary muscle failure.
<b>Pilates</b>	An exercise program involving a series of controlled movements that focus on the core postural muscles. These muscles help keep the body balanced and are essential to providing support for the spine.

# From protein to RMR

<b>Protein</b>	Essential nutrient made up of 20 amino acids. Primary job is to help build and repair muscles, ligaments and tendons
<b>Renge of emotion</b>	Degree that a joint will move.
<b>Resistance training</b>	Popular training technique using a set force against muscles. Resistance Training could be weights, machines, your on body weight, bands etc. Used to increase muscle fiber size, muscle, tendon and bone strength, aid balance, much more.
<b>Resting Heart Rate</b>	Number of times your heart beats in one minute while your body is at rest. Best reading are taken just after you get up from the nights sleep and with little stress or distractions.
<b>Resting Metabolic Rate</b>	The number of calories your body expends while at rest.
<b>RHR</b>	Resting Heart Rate. Number of times your heart beats in one minute while your body is at rest. Best reading are taken just after you get up from the nights sleep and with little stress or distractions.
<b>RMR</b>	Resting Metabolic Rate - The number of calories your body expends while at rest.

# From ROM to Strain

<b>ROM</b>	Range of Motion. Degree that a joint will move.
<b>RPE</b>	A scale from 1-20, sometimes from 1-10, designed to evaluate a person's perceived rate of exertion during a physical activity. 1 is lowest and 20 (10) is highest.
<b>Spotter</b>	A person(s) who stand near by while and exercise is being performed to assist or prevent injury. Usually when training with very heavy wait or balance or extremely difficult exercise to perform.
<b>Sprain</b>	A stretching or tearing of connective tissue, usually a ligament. Causes discolor, swelling and pain.
<b>Static Stretch</b>	A passive stretch that holds the muscle at its safest longest length possible. Should be held 15-30 seconds.
<b>Strain muscle</b>	A muscle injury from over use or overexertion.
<b>Strain</b>	A stretching or tearing of connective tissue, usually a ligament. Causes discolor, swelling and pain.

# From Strength training to yoga

<b>Strength Training</b>	Exercising with progressively heavier resistance. Examples are weights, machines, your own body weight, bands, etc. Used to increase muscle fiber size, muscle, tendon and bone strength, aid in balance, and much more.
<b>Target Heart Rate</b>	Heart Rate per minute that signifies the appropriate level for your desired goals, conditioning, and exercise level.
<b>Temporary muscle failure</b>	The point at which muscle(s) can no longer contract due to lack of ATP or increased levels of lactic acid, a by product of anaerobic ATP production. Usually occurs in maximum effort exercise lasting up to 30 seconds and heavy exercise durations upwards of 45mins.
<b>Tendon</b>	Connective tissue that attaches muscle to bone.
<b>Trans Fat</b>	Target Heart Rate. Heart Rate per minute that signifies the appropriate level for your desired goals, conditioning, and exercise level.
<b>Unsaturated fat (Poly unsaturated)</b>	A fat derived from plant and some animal sources, especially fish. Intake of foods containing more unsaturated fats than saturated fats may contribute to reduced blood cholesterol levels.
<b>Yoga</b>	A system or routine of specific exercises practiced to promote control of the body and mind. Helpful in balance, flexibility, detoxification, and more.

# Exercise descriptions

- **Barbell Curls (Close Grip):**

First, choose a standard straight barbell, or an EZ-Curl barbell. The EZ-Curl bar will alleviate some strain on the wrists which may accompany this exercise. Stand with your feet about shoulder width apart and your knees slightly bent, holding the bar with a palms under grip.

In a controlled manner, curl the barbell up to shoulder height. Keep your elbows stationary near your sides. Hold the bar at the top for about half a second and then lower it slowly. Repeat the curl for eight to ten repetitions. As long as it does not hurt your wrists, keep at it.

There are several ways to hold a barbell. A wide grip that puts more work on the inner biceps head; a standard shoulder width grip that everybody usually does; and a narrower grip that work your biceps more, and also your brachialis and brachioradialis. The brachialis muscle lies just below the biceps and aids in just about any elbow flexion movements (like curls). When it is well developed, it will add to your arm size and shape.

# Exercise descriptions

## **Barbell Curls (Standing):**

Standing barbell curls build your biceps, the body's showiest muscle. Start by holding the loaded bar at your waist and curl it to your chest. For full effect, keep your elbows still and squeeze the biceps at the height of the contraction. Use a weight belt or stand against a wall to keep your back straight. Do not forget to breathe. Exhale with the effort.

## **Bench Crunch:**

Lie on the floor on your back, with your feet up on a bench or against a wall for support. (Hands are usually placed at the temples, but placing them on your hips helps make the exercise easier). Lift your head and shoulders up toward your knees while flexing your abs hard and crunching them. Keep your body stationary from the waist down. This exercise works the upper abs.

## **Bench Presses (Barbell):**

Lie flat on a bench with your feet flat on the floor. Grip a barbell slightly wider than shoulder width. Lift the bar off the rack and extend your arms fully above your chest. Lower the bar slowly until it touches you mid-chest. Press the bar back to the starting point. Remember to inhale while lowering the bar and exhale while pressing the bar up.

Remember, keep your feet on the floor. Do not arch your back. Lower the bar slowly so it does not bounce off your chest. Always train with a partner or spotter in case you get caught with too heavy a weight. Beginner bodybuilders should do 1 or 2 sets, 8 to 10 reps. Advanced bodybuilders can do more.

# Exercise descriptions

## **Cable Rows (One Arm) with a Twist:**

Use the lower cable attachment. Place your left foot straight forward and your right foot back 2-3 feet at approximately a 45 degree angle to your left foot. Place your left hand on your left knee. Grasp the lower cable handle with your right hand. Extend your arm completely. Your palm should be facing downward.

Now, pull the weight into your midsection as far as you can. You should end up just above your hipbone. Here is the twist - as you pull the weight into your waist, twist your hand so that your palm is facing upward at the completion of the rep. Lower the weight slowly, resisting as the handle returns to the start.

## **Calf Raise (Standing):**

Stand on a calf-raise machine with your shoulders under the pads. Place the balls of your feet on the foot platform so that your heels are free to move through a full range of motion. Keep your toes pointed straight or slightly out to the sides. Straighten your legs completely and extend your body so that your feet, hips and shoulders are in alignment. Lower your heels at a moderate speed until you feel a strong stretch in your Achilles tendon and calf muscles. As you reach the bottom position, inhale slightly more than usual and hold your breath as you push off vigorously to rise as high as possible. Hold the top position for up to two seconds to ensure maximum muscle contraction. Relax slightly, lower your heels under control and exhale.

Don't pause in the bottom position unless you are trying to increase your ankle flexibility. Don't bend your knees. Don't bounce in the bottom position.

# Exercise descriptions

## **Crunches:**

Your target zone is the Upper Abdominals. Lie on the floor - you can put your lower legs up on a bench if you prefer - with your knees bent and pointing to the ceiling. This position ensures that your lower back is flat against the floor. Place your hands behind your head and curl your upper torso forward, bringing your rib cage toward your pelvis until you feel a contraction in your abs. Pause for the contraction and slowly return to the starting position. Exhale on the contraction - this breathing advice applies to all abdominal exercises.

## **Curls: Reverse Preachere Curls:**

Take a shoulder width overhand grip on a five foot straight bar. Lean over a preacher bench with the top edge of the pad under your armpits and your upper arms hanging down along the pad and slowly straighten your arms. Use forearm and upper arm strength to move the barbell in an arc from the starting position up to a point just beneath your chin. Lower it back to the starting position in a count of four. Inhale as you lower the weight and exhale as you raise it. This exercise helps to stress the forearm supinators, brachialis and biceps.

# Exercise descriptions

## **Deadlifts:**

Deadlifts, when performed correctly are an incredible overall power exercise that involve more muscles than any other exercise you will come across. They also directly strengthen the lower back muscles .Train with control and form. Too much weight and improper form while performing the deadlift can cause the muscles in the lower back to shorten quickly, causing the ligaments to loosen and the muscles to take on 100% of the weight. This can result in severe pain and muscle spasm.

Keep your back flat and straight, your head up and start the lift with your legs and glutes driving the bar up. Use your arms as hooks to hold the bar - do not lift with them. Exhale as you ascend with the weight. Keep your knees over your toes when you bend to grip the bar. Keep the bar as close to your body as possible throughout the lift for maximum strength.

# Exercise descriptions

## **Deadlifts: Romanian Style:**

This is a power tool of the Olympic weightlifters. It is the drill for huge hamstrings. Start by locking out a conventional deadlift with a lightweight. Use the 'clean', double overhand, palms toward the body, grip. Do not use a belt. Stand upright with a barbell in your hands and your body weight centered on your heels. Look up and inhale so you are staring at the ceiling. Arch your back tightly and slowly force your glutes as far back as possible. We lower the weight by pushing the butt back, not (as in stiff leg deadlifting) by standing erect and bending forward to lower the weight. This is the critical difference.

The shoulders, more or less, stay over the ankles throughout the lift: the opposite of a stiff legged deadlift, in which the shoulders move forward, out over the toes. As you lower Romanian style, pull back with the hip flexors, the antagonistic muscles of the glutes and hamstrings.

As you are descending, your knees will unlock somewhat. Good! Be sure to keep your shins vertical throughout. Most of the movement will take place at the hip joint, some at the knee and none at the back! Keep jackknifing at the hips until you cannot get any more depth without losing your arch or bending your knees excessively. Stop and reverse to lockout. For most bodybuilders, this level will be no lower than the kneecap.

Keep the bar very close, both on the up and down; don't let it swing forward and rock you on your toes. Once you have reached the bottom position, reverse the movement by squeezing an imaginary coin with your glutes and digging your heels into the floor.

# Exercise descriptions

## **Dumbbell Lunges (side):**

If we take a normal forward-stepping lunge and convert it to a sidestepping lunge, it will turn from a good thigh exercise (although there are better quadriceps mass builders) to a great adductor exercise.

Grab a light dumbbell in each hand and stand upright. Your feet should be together. It is helpful if you stand in front of a full length mirror. One leg will act as an anchor. With the other leg, step directly out to the side in a line that runs laterally through both shoulders. Keep the toes on both feet pointing forward. Make sure that as you step to the side that your trunk maintains its upright position. Do not look down at the floor while you are lunging or you will soon find more that your feet are on the floor (the mirror forces you to keep your head and eyes up).

The foot of your lunging leg should contact the floor in a position that is at least 18 inches wider than your shoulder, but try for more as you get used to the exercise. Bend the knee of the lunging leg and lower your body towards the floor by continuing the bend this knee. Keep the knee straight on the anchor or support leg.

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# Exercise descriptions

## **Dumbbell Presses (Incline):**

Set an incline bench at an angle no greater than 30 degrees. With a dumbbell in each hand, lie back on the incline bench. Swing the dumbbells up and hold them at shoulder height, palms facing forward. Press the dumbbells straight up directly above your shoulders. Lower them slowly to the start position. Remember to breathe properly, exhaling as you exert pressure and inhaling when you lower the weights.

Remember to keep your feet on the floor at all times. Control the weights, raising and lowering them slowly without letting them hit at the top. Focus on the muscles being used.

## **Dumbbell Pullovers:**

Lie across a bench with only your shoulders on the padded surface and your feet flat on the floor. Grasp a dumbbell with both hands, palms against the inside of the top plate. Hold the dumbbell at arm's length (with your elbows slightly bent) over your chest. Inhale deeply while simultaneously lowering the dumbbell behind your head in a smooth arc. While lowering the dumbbell, drop your hips toward the floor to increase the stretch. Keep your hips low until the weight is returned slowly to the start position. Use a weight that will allow you to perform 15 to 20 reps. Beginners should try 1 or 2 sets while advanced lifters perform 3 - 4 sets.

If you did not feel a tremendous stretching sensation through the ribcage, you probably didn't drop your hips down all the way or take a deep breath. You'll know what we mean when it happens.

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# Exercise descriptions

**to be continued.....**

**Thanks for your attention**