

Pump It Up!

JJ Virgin, CNS

Once you have incorporated bursting into your life for at least 4 minutes a day, 3 times a week you are ready to add in resistance training. While bursting boosts your metabolism every time you do it, resistance training can increase your metabolism for the long haul as it changes the rate at which you burn calories all day long because muscle requires more energy to exist on your body.

One of the gyms I frequent has separate rooms for the cardiovascular equipment and the strength training equipment. The hallway that separates both rooms is glass so I can see into each room as I go to the weight room. I am always amazed by the disparity between the participants in each room. The people working out on the cardiovascular equipment (often reading a book while they "workout" without even breaking a sweat!) have higher body fat and look softer and less fit than the people who I regularly see in the weight room. The people in the weight room continue to progress and improve while the people in the cardiovascular room look the same or maybe even a bit worse as the years have passed. The biggest unsolved mystery of all is what motivates these people who are in the cardiovascular room to keep coming back when they are experiencing minimal results? When you exercise you should notice changes in your fitness level and physique. With bursting and strength training you will be amazed by the changes that occur, no matter what age or fitness level you are starting.

By resistance training I mean anything that provides enough resistance so that you can do 8-12 repetitions in good form. If you can't get to 8, you need to reduce the resistance (weight), if you can keep going past 12 you need to increase it. This range is the most effective for building muscle. If you are a woman, you may be concerned that weight training will make you bigger. Nothing could be farther from the truth. Think of muscle like your metabolic Power Base, it holds everything in tighter WHILE boosting your metabolism. It is a two for one! You will notice that as your strength improves you are also getting tighter and more compact.

With resistance training, just like with bursting, less is more here. The type of exercises I want you to do are multi-joint, full body style movements that incorporate as many muscles as possible. These are functional exercises that often mimic moves that we do in everyday life so that they also serve to improve function and reduce your risk of injury. This also means that they use your "core" muscles. You may have heard of core training or you may be taking a core training class. Core training is generally done on the floor using small exercises that involve your trunk muscles. The challenge is that we don't live most of our life lying on the floor and when we really need our core muscles most is when we are pulling groceries out of the car, lifting up the kids, etc. Doing full body functional exercises will not only build muscle and burn fat but also protect you and prepare you for the challenges of everyday living!

NEWS FLASH: Even a relatively small difference (10kg) in muscle mass could have a significant effect on energy balance. Every 10 kg difference in lean mass translates to a difference in energy expenditure of 100 cal/day assuming a constant rate of protein turnover. (The underappreciated role of muscle in health and disease, Robert R. Wolfe American Journal of Clinical Nutrition 2006;84:475-82)

Your BIG 4

I have divided the exercises into four major categories:

- **Power Core**
- **Hips and Thighs**
- **Upper Body Pushing**
- **Upper Body Pulling**

I want you to choose 2-3 exercises from each category 2-3 times a week.

You can do all of the exercises on one day or combine groups. Just make sure that you don't do the same exercise group two days in a row AND that you do each group at least twice a week! If you are new to resistance training, be sure to start with one set only of each exercise at a weight that feels mildly to moderately challenging for you for the first week or two. When in doubt on the amount of resistance, always go easier to start. After that you can progress to 2-3 sets of the heaviest weight you can safely handle in good form with a 60 second rest break between sets. Continue to increase the weight as you increase in strength. If you can't get to 8 repetitions lighten the weight and if you can go past 12 reps increase it. Never sacrifice form to get to a heavier weight.

I have created exercises that you can do at home because I have found that the second biggest objection for not exercising after the "time excuse" is feeling too out of shape to go to the gym. Now you will save time since you don't have to take time to drive to the gym, save money because you don't have to pay for a gym membership or buy gym outfits and you can get in fabulous shape right in your living room!

I have included pictures of exercises from each category.

NEWS FLASH: Exercising at home is just as effective as working out at a gym and overcomes the time, money and intimidation excuses. (Effects of intermittent exercise and the use of home exercise equipment adherence, weight loss and fitness in overweight women: A random trial, 1999, Jakicic.)

JJ's Action Step

Building Your Metabolic Girdle

Do 2-3 exercises from each group 2-3 times a week. Never do them 2 days in a row.

Hips and Thighs Exercises

Squat with Weights



Stand with feet shoulder width apart, weights in hands. With chest lifted, squat as if you are trying to sit down into a chair. This will ensure that your knees do not go past your toes and that you don't go lower than a 90 degree angle at your hips or knee. Stand back up pushing through your heels and midfoot (toes able to wiggle) to standing position without locking your knees or bouncing, then repeat.

TIP: Do without weights in hands at first to become confident with rhythm and form. Add weights to counterbalance the move. (see Squats without Weights)

Caution: If you have low back or knee injuries, use the plié modification and reduce your range of motion to start.

Primary muscles worked: back extensors, front of thigh (quadriceps) and glutes

Squat without Weights



Stand in front of chair with feet shoulder width apart. Cross arms in front of chest to challenge balance. With chest lifted, squat down as if you are trying to sit down into a chair. This will ensure that your knees do not go past your toes. Stand up by pushing through your heels and midfoot (toes able to wiggle) to standing position without bouncing or locking your knees, then repeat. As you improve, lift your arms straight up over head in a V position with palms facing inward. This will force you to use your lats and upper back muscles to keep your arms up.

TIP: Remember to keep chin and eyes straight ahead.

Primary muscles worked: back extensors, quadriceps and glutes

Pliés

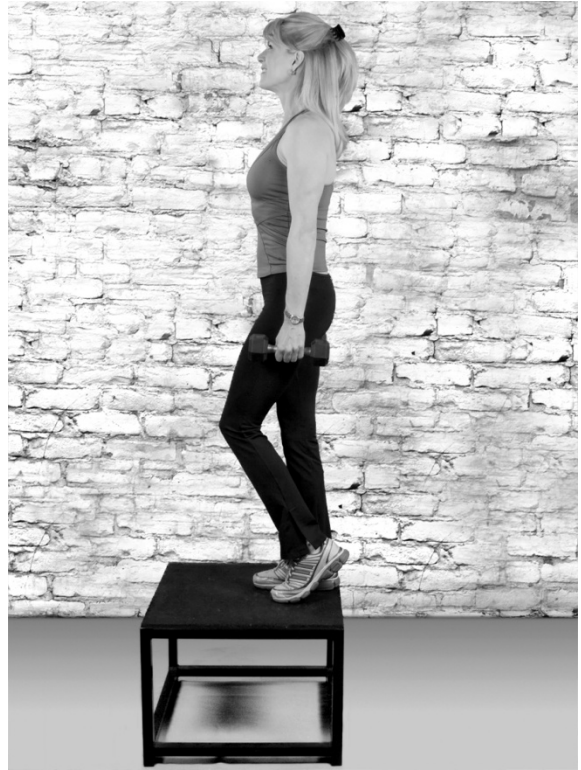


This is a great modification if you have knee or back issues. Step out wide with your feet angled outward slightly, making sure that your knees track over your toes when you bend your knees. Pull your bellybutton to your spine to create a "neutral spine" and make sure you are standing straight up in good posture with your shoulders over your hips.

Bend your knees and lower yourself while maintaining a neutral spine. Stop when you feel like you are going to start letting your back arch and before coming to a right angle at the knee. Straighten back up and repeat.

Primary muscles worked: quads, glutes, inner and outer thighs

Step up



You will need a stable platform that is 12-24 inches tall. Make sure that when you step up onto it your knee and hip don't flex beyond a 90 degree angle. If you have any knee injuries, start with the lower platform height.

Step up on your right leg and tap your left foot on the platform. Step down on your left leg and then tap your right foot on the ground, (without bearing full body weight on it) and repeat for 8-12 repetitions and then perform the exercise starting with the left leg.

Primary muscles worked: quadriceps, hip flexors and glutes

Lunges



Standing with feet a few inches apart, take one large step forward with right foot. From this position, push off right foot and bring back to starting position. Be sure not to swing your arms or throw your upper torso to help you. You can do these by changing legs each time or do one set with one leg and then repeat with the other.

TIP: Knee on front leg should not go past toes when in lunge position. If it does, take a bigger forward step.

Caution: If you have any knee instability, perform Standing Lunge

Primary muscles worked: quadriceps, hamstrings (back of the thigh) and glutes

Standing Lunge



You may initially need to hold onto a chair as your balance improves. Step out wide in an initial lunge position. Distribute your weight between your forward foot and your back toes (your heel is lifted). Drive your thigh of your back leg perpendicular to the ground while you bend your forward knee. You shouldn't be moving forward or leaning forward at all while doing this. Start with a smaller range of motion and increase it as your strength improves.

Primary muscles worked: quadriceps, glutes and hamstrings

Turkish Get Up



Lie on the floor with a dumbbell in your right hand. Your right arm must stay perpendicular to the floor at all times. Using your core, left arm and legs stand all the way up keeping your arm extended straight up and then lie all the way back down still keeping your arm extended. Perform 8-12 reps to one side and then repeat using the other arm.

Primary muscles worked: EVERYTHING

Upper Body Pushing Exercises

Pushup



Kneel on flooring of choice, walk hands out in front of body along floor, spreading them wider than shoulders. With your body weight centered over both palms, slowly lower chest towards floor, stop when your elbows reach 90 degrees. Keeping your back straight, push up and repeat.

TIP: Contract your stomach to prevent hips from sagging throughout movement. When this position becomes easy for you, start on toes instead of knees. You can vary the exercise by doing this off of a bench or a stability ball. If it is too hard for you to do off of the floor you can do against a high counter or wall.

Primary muscles worked: chest, front of the shoulders and triceps

Dip



Sit tall on the edge of a chair, palms flat, fingers hanging over the edge. Keeping shoulders and elbows behind you, gently scoot off edge of chair and lower hips toward floor until elbows reach 90 degrees. Push palms against the chair to extend elbows and lift body back to start position before repeating.

TIP: Stay near the chair by keeping hips back towards the chair. You should have your back perpendicular to the floor at all times. Lift chest to ceiling to keep back straight and chin up. Tuck elbows and arms in toward your body to prevent them from flaring out to the side.

Primary muscles worked: triceps



Advanced Dips

Overhead Press



Stand up, sit on exercise ball or sit on chair with bellybutton pulled to the spine and knees slightly bent (if standing). Hold weights in front of shoulders, palms facing in. Push weights over head until arms are extended. When arms are extended they should be slightly in front of you rather than directly overhead. Lower to starting position and repeat.

TIP: Keep chin lifted slightly and core stable.

Primary muscles worked: shoulders and triceps

Upper Body Pulling Exercises

Bentover Row



With weights in hands and approximately a 30-45% bend at the knees, lean over, extend chest while reaching hips back. Allow arms to hang straight down towards the floor. While looking forward at the ground, not up, pull and twist weights until forearms are nearly touching upper rib cage, elbows to the ceiling. Lower to starting position with control. Repeat.

TIP: Keep belly button pulled in towards spine to engage your core and protect lower back.

Primary muscles worked: lats, back extensors, rear shoulders, biceps and core

One Arm Row

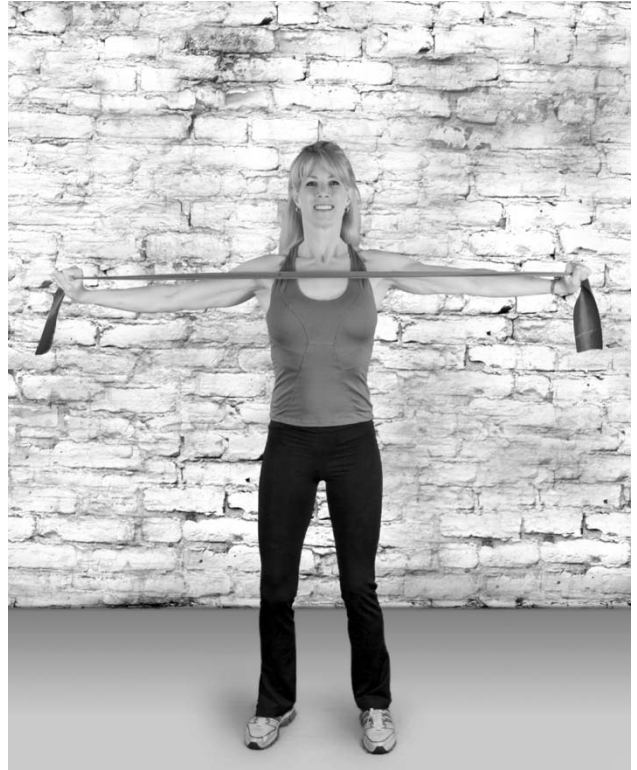


Begin by holding one weight in left hand hanging toward the floor. Place feet just wider than shoulder width with exercise ball, bench or chair directly in front of you. Keeping back straight, lean on chosen surface with the right hand, chest up and hips back. While looking forward, pull and twist weight until forearm touches side, elbow to the ceiling. Lower to start position with control. Repeat.

TIP: Keep shoulders level and core strong, do not twist torso during the movement.

Primary muscles worked: lats, rear shoulders, biceps

Overheard Band Pull Apart

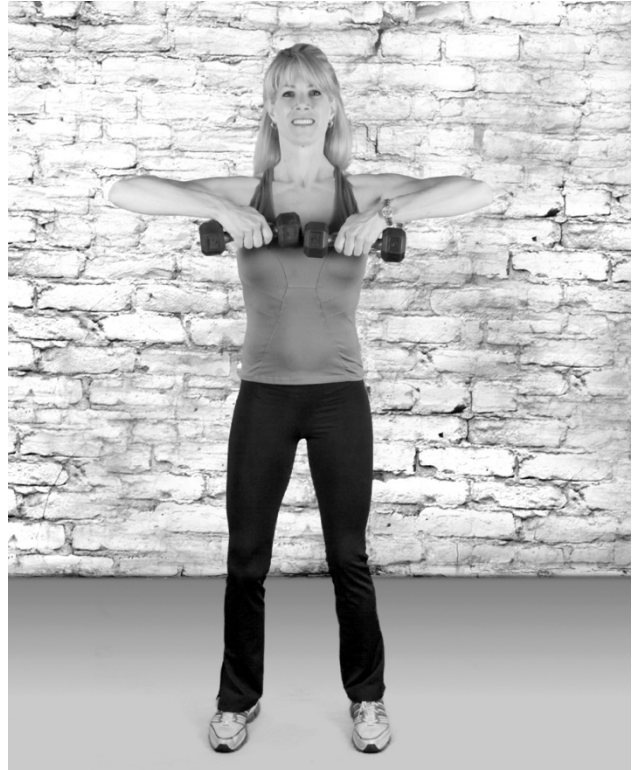


Stand with knees slightly bent, sit on exercise ball or chair. Grasp exercise band, hands wider than shoulder width apart. Raise arms over head, tuck belly button in and pull band apart while lowering it to chest height. With control, allow band to recoil, arms overhead again, repeat.

TIP: Arms remain with a slight bend at the elbow through the entire movement. Place hands closer together for more resistance and farther apart for less. Be sure to keep shoulders down throughout movement.

Primary muscles worked: lats

Upright Row



Stand with feet shoulder width apart and weights hanging down in front of body touching end to end. Raise elbows out to the side while dragging the weights up the front of your body as if you were tracing an imaginary midpoint, stopping when elbows become level with shoulders.

TIP: Keep chin up and belly button tucked in.

Primary muscles worked: shoulders, upper back and biceps

Power Core Exercises

Wood Chop



Sit on exercise ball or chair. Hold weight with one hand over the hand in the middle of the weight. Sit up straight with arms extended and elbows slightly bent. Reach weight down toward outside of left knee then raise weight diagonally in the direction of opposite shoulder.

TIP: Concentrate on your core, use it to turn you not your arms. Try without the weight with your palms together for a few repetitions to create solid form.

Primary muscles worked: core and upper shoulder girdle

Crunches



Lie on floor with legs lifted and bent at 90 degrees. Place fingers behind head, elbows out. Keeping eyes up and chin lifted, contract stomach muscles in order to lift shoulders and hips off the ground, crunching chest toward knees. Lower with control and repeat.

TIP: Hands should be loosely placed behind head, to avoid undue stress to neck. Do not pull on head with hands when lifting during crunch. Touch tip of tongue to roof of mouth to engage front neck muscles to support the neck during the movement.

Primary muscles worked: abdominals

Soccer Sit Ups



Lie flat on the ground with your arms straight out in front of your and your knees slightly bent. Raise your head and upper torso off the ground while bringing in one leg towards your trunk. Return to the ground and repeat with the other leg. Be sure that you are not throwing your arms or head to help you up. As you progress place your hands behind your head and be sure to keep your head up and elbows back throughout the movement.

Primary muscles worked: abdominals

Single Leg Arcs



Lie flat on your back with your feet off of the ground and your knees bent. Feet and knees should be about 6" apart, about hip width. You should have a 90 degree angle at the knee and hip. Press lower back firmly into the ground. You should feel your deep abdominals contract when you do this. Keep lower back down, slowly lower one heel towards ground, maintaining 90 degrees at knee. Go only as low as you can while keeping your lower back down to the floor, tap floor with heel if possible and return to starting position. Repeat with other heel.

Primary muscles worked: deep abdominals

Superman



Kneel down on hand and knees (use padding under knees if needed). Begin by lifting left leg straight back, contract glutes to keep leg straight. While holding leg back, slowly lift opposite arm straight-ahead, thumb pointing toward the ceiling. Keep eyes to floor, hold for 3 seconds, lower and reverse sides.

TIP: Keep back flat, imagine yourself straight as an arrow from fingertip to big toe. Pulling bellybutton to spine to engage the abs will help with balance.

Primary muscles worked: abdominals and back extensors

Q: *Won't strength training make me bigger? Shouldn't I lose the weight first?*

JJ Virgin: Think of muscles as your metabolic Power Base. Like a girdle, they hold everything in tighter while boosting your metabolic rate so that your body burns more calories all day long. Now why would you want to wait to become a better fat burner and to look tighter and more toned? If you strength train while you eat a hormonally balanced diet you will ensure that the weight that you lose is fat and that you can hold onto or build muscle so that you can easily maintain your ideal weight once you get there. This will help you avoid the thin but flabby look that those who diet without exercise tend to achieve. A study done in London over the past decade found that about half of all men and women with normal BMIs (body mass index) had too much body fat due to the fact that they maintained their weight solely through diet - i.e. they didn't exercise. So they had what I call "sarcopenic obesity" (sarcopenia-loss of muscle) that means your weight is fine but you don't have enough muscle mass-you are thin and fat at the same time. There is no long term success without exercise so get into the habit now so that once you reach your goal body composition you will be able to maintain it with ease.

<p>NEWS FLASH: The maintenance of a large muscle mass and consequent muscle protein turnover contributes greatly to the prevention of obesity. (Robert R. Wolfe American Journal of Clinical</p>

Be Flexible!

Flexibility is the forgotten element of fitness. Thankfully, if you do your resistance training correctly you will also improve your flexibility as you are moving your body through full ranges of motion. But you will still want to incorporate some flexibility work into your day as it has benefits beyond just improved function. Flexibility also helps maintain strength and range of motion but more importantly, it is great for de-stressing which we will address in more detail in the Stress Less Chapter. An important point to emphasize here is that you want to make sure that you only stretch the areas that you are tight. If you are super loose in certain areas, work on strengthening them with resistance exercises instead. You should hold a stretch for 30-60 seconds without bouncing. Breathe while you gradually try to increase the stretch but never to the point of pain. Ideally you should repeat the stretch 2-3 times.

JJ's Action Step

Stretch to D-stress

Incorporate stretches throughout your day. Put them in when you are recovering between resistance exercise sets. Do them to help decompress at the end of a busy day, do some in the shower, do them at work if you are feeling tight.

Stretches

Modified Child's Pose



Kneel behind ball. Place your palms on ball and push it forward enough for your head and shoulders to drop down between you and the ball, back straight. Relax and repeat. If you don't have a ball you can put your hands directly on the floor in front of you.

TIP: Find a comfortable place that feels like a gently stretch there should be no pain or discomfort. Hold still in position, to avoid injury. Do not bounce or jerk while doing the stretch.

Muscles stretched: lats, rhomboids, middle and lower trapezius

Quad Stretch



Standing with arm out for balance (or on chair back or ballet bar for assistance) grasp ankle or toe of left leg with left hand. Keep knees together, pelvis tilted slightly forward and chest high. Hold here, take 5 deep breaths. Switch legs. Repeat twice on each side.

TIP: If you cannot reach your foot, prop it on a chair behind you.

Muscles stretched: front of thigh and hip flexors

Seated Hamstring



Sit on your exercise ball. Place right foot in a loop at the middle of the stretch out strap or use a towel. Extend right leg and lean with a straight back and high chest toward left knee. Use stretch out strap or towel to gently pull back on left foot, intensifying the stretch from hips to ankle. Repeat twice on each side.

TIP: A slight bend in the knee can lessen or intensify the stretch as you need.

Muscles stretched: back of thigh and calf

Rolling Pretzel Stretch



Lie on back on floor, legs straight, ankles up on the ball, hands out to your side palms down. Place your right ankle above your left knee. Use left leg to gently roll ball back towards your hips. Roll in until right left knee is at 90 degrees, keeping hips in contact with the floor. Use right hand to gently push right knee towards ball to intensify stretch in right hip. Repeat twice on each side.

TIP: If your hips start to lift during the rolling, stop at the point they start to lift and hold.

Note: If you don't have access to a stability ball you can eliminate the rolling portion of this movement. Lie on your back with feet flat on floor and knees bent. Put right ankle on left knee, pull left thigh in using your left hand and use your right hand to gently push your right knee out to increase the stretch. Keep lower back on ground.

Muscles stretched: hips and glutes

Spinal Stretch



Lie on back legs extended. Bend right knee into chest and let fall to left side. Use left hand to assist and hold knee in place. Reach with right hand out the right side, palm down. Turn head and look towards right fingertips. Repeat twice on each side.

TIP: Keep body in a straight line from extended foot to top of head.

Muscles stretched: spinal stabilizers, hips, gluts, and neck

Neck Mobility



Sit on an exercise ball or in a chair. Put right hand on the ball or chair to keep right shoulder anchored down. Take left hand and gently pull head towards left side. Repeat to other side.

Put both hands on ball or chair to help keep shoulders down. Look over one shoulder as far as possible and then gently turn head to repeat to other side. Then drop your ear towards your shoulder and hold. Slowly roll head forward and repeat to the other side.

Repeat this entire sequence 2-3 times.

Muscles worked: upper back and neck muscles



Hurdler's Lunge Stretch



ADVANCED

Kneel on mat. Take a giant step forward with right leg and lunge into it. Your right foot should be slightly in front of your right knee. Place hands on either side of your right foot. If possible, take hands and place on right thigh and lengthen spine. Alternately, you can also use a stability ball placed on your right hand side for balance. Repeat to other side.

For an advanced stretch, lift your left knee off of the floor and reach your arms up overhead.

Muscles stretched: hamstrings, hip flexors, quads

Door Jam Stretch



Stand at a door jam with elbows slightly lower than shoulders and arms bent at a right angle. Put arms on door jam and take a step forward with one leg and hold. Keep head up and push back leg's heel down. Gently slide arms up the door jam to increase the stretch. Step back and repeat to other side.

Muscles worked: chest, upper back, calves, hip flexors

You know you aren't exercising hard enough when:

...you can read WHILE you are working out!

...you can talk on your cell phone WHILE working out!

... you don't need to wash your workout clothes after a workout!

... your entire social life occurs during your 30-60 minutes at the gym!

...all of your exercises are done while sitting or lying down!

...you doze off while exercising!

Progress Report

You may find that at some point you will hit a "plateau" where it seems that you have gotten as far as you can get. The theory behind exercise is that it should be progressive, meaning that you always need to change it up to continue to progress. This also helps keep it fun, interesting and challenging.

You should continually overload your body so it is stimulated to repair and respond by getting stronger. Here are some of my favorite "plateau busters":

Hire a trainer to teach you new exercises, check your form and challenge you.

Try out a class to find some new moves to incorporate into your regular routine.

Go on a fitness vacation-hike in Southern California mountains, cycle through Colorado, rollerblade at the beach.

Find a friend to workout with so that you can challenge and motivate each other.

Change up your workout by changing up your sets, reps and tempo once in a while. Do 1-2 sets of high repetitions (15-30 reps) rapidly (while ensuring safe form of course). Do 4-5 sets of 3-6 reps of the heaviest weight you can handle at a bit of a slower pace. Add some bursts in between your sets.

Change up your bursting style-stair climb one day, cycle the next, then do some walk/sprint training.

As you can see from these suggestions, you want to keep your body guessing. Your body's job is to acclimate and adapt to the stimulus you are giving it. You need to continue to challenge your body to continue to progress.

If your budget allows, I recommend using a qualified, experienced personal trainer to help you get started on your resistance training program and to ensure that you are using the correct form. Ideally, you would have the trainer do an initial fitness evaluation to test your beginning fitness level and then go over your starting program. Then every 4-6 weeks, have your trainer come back and give you exercise variations and check your progress to ensure that you continue to challenge yourself and progress. Keep an exercise journal for them to review when they return.

How to Choose a Personal Trainer

There are specific things you should look for when you are choosing a personal trainer. Make sure that they have been certified through one of the national organizations including ACSM, ACE, NSCA and NASM and that they carry liability insurance. I particularly like the NASM and CHEK Institute training and certification. Find out where they received their education and what it involved. Ideally, look for a trainer with college courses in exercise physiology, kinesiology and biomechanics. Find out what they do for continuing education because if they aren't continuing to learn, they are falling behind. This is an industry where new information and breakthroughs happen often. Ask how many years they have been training and get some references. See how their personality meshes with yours and find about their training philosophy. Finally, make sure that their fee schedule and policies will work with your budget and your needs.

Don't confuse a trainer with a nutritionist. You wouldn't go to your hairstylist for nutrition advice, so don't go to your trainer for it either unless they have done additional training in nutrition to qualify them to provide this service.

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