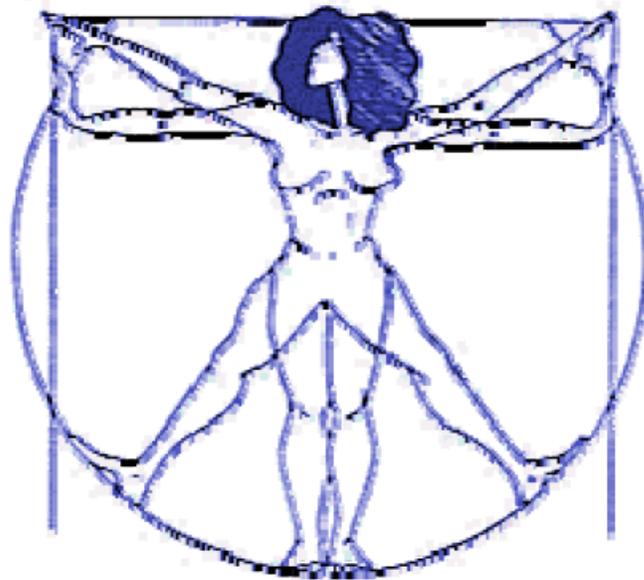


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Stubborn Body Fat

LINDA J. BUCH - BODY LANGUAGE (tm)- November 28, 2011
Stubborn Body Fat

"I have been on a diet under the supervision of my physician and lost 100-pounds in about a year. However, I still have body fat around my abdomen that I am unhappy about. Currently I am on my own and doing intense workouts (Circuit Works) while consuming 600-1,000 calories per day. My goal is to achieve five-six-percent body fat. However, the workouts are beating me down. What should I do and why am I stuck? Is my goal realistic?" Louis Devereux, Venice Beach, CA

Severely limiting calories to a "semi-starvation mode," which is defined as 50% of normal weight maintenance calories, can yield fat loss but also carries with it the same risks that bedevil anorexics. This includes, but is not limited to, heart problems, osteoporosis, serious mental health issues, and death. Your drop in 100-pounds is more than excellent but now your metabolism has changed.

The loss of body mass naturally slows down your metabolic rate because there is now less of you to maintain. You do need to keep calories down and exercise up to continue fat loss but extremes in either may hurt more than help. Going below 1200 calories per day without medical supervision is dangerous, especially if you are also engaging in intense exercise programs.

It is far better to calculate your Basal Metabolic Rate (bmi-calculator.net)) to find the caloric intake necessary to maintain your current weight, and then drop off about 500 calories daily from that number. Nutritional density is one of the keys in order to maintain good health. For most of us here in America, that means a serious change in lifestyle: foods that are fried, high in saturated fat, contain a lot of sugar, or are highly processed should be seriously curtailed. Cleaner food choices, divided into four to six daily meals, is one way to reset your lifestyle as it relates to food.

According to the National Weight Control Registry, established in 1994 by James O. Hill, Ph.D. from the University of Colorado and

Rena Wing, Ph.D. from Brown Medical School tracked over 4000 people over age 18 who had lost 30-pounds or more and who had kept it off for over one year. In addition to a low-calorie/low fat diet, they performed high levels of physical activity one hour per day (primarily walking, strength training, and aerobics), and weighing themselves frequently, at least once a week. Most also ate breakfast daily and watched less than 10 hours of TV per week.

As for body fat, it seems to have a mind of its own, literally. Each fat cell has either an alpha or a beta-receptor on its surface that regulates the blood flow to the fatty acids in the cell. The alpha-receptors slow down fat utilization; beta-receptors speed it up. These receptors are genetically determined, usually by sex. Women tend to have more alpha-receptors on the lower body, back and legs; men on the midsection and chest area. According to an article printed in the *Journal of Applied Physiology* (January, 2000), the distribution of alpha and beta-receptors on each fat cell explains why certain parts of your body lose fat faster than others. Beta-receptors are less resistant to stimuli, allowing fat to move out more easily than the highly resistant alpha-receptors.

But even stubborn areas will yield to a focused and disciplined program of healthy food and physical activity, so stay true to your goal and do not get discouraged.

Resources

National Weight Control Registry, nwcr.ws/

“P.A.C.E., The 12-Minute Fitness Revolution,” Al Sears, MD, Wellness Research and Consulting, 2010, \$24.95

“The Stubborn Fat Solution,” Lyle McDonald, Lyle McDonald Publishing, 2008, \$39.95

LINDA J. BUCH - BODY LANGUAGE (tm)- November 14, 2011
Getting Off Blood Pressure Medication

"I am 62, active, and maybe a little overweight (5'9" and 195#). For the past few years I have been taking blood pressure medication but would like to get off of it. Can I accomplish this with a healthier lifestyle? What would that entail?" Retired (but still young at heart), Lancaster, PA

You know you have achieved Mature Adulthood when the blood pressure cuff starts showing up for every physical exam. The Big Squeeze (technically known as a sphygmomanometer) will tell the medical professional conducting this part of the exam two things – the pressure of flowing blood against your arteries when your heart beats (top number of systolic pressure) and the pressure when your heart is at rest (the bottom number or diastolic pressure).

According to the National Institutes of Health, 73 million Americans have hypertension. This is an increase of 30% in the last decade. According to the American Heart Association, it is estimated that nine out of 10 Americans will develop high blood pressure sometime in their life. A current diagnosis of "Hypertension" is now any reading over 120-mmHg/80-mmHg. (This reading used to be considered "normal.")

However, new data (compiled in 2004 by the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure, or JNC 7) on lifetime risk of hypertension and increased cardiovascular risks associated with those old levels has forced the introduction of a new classification: "prehypertension." This diagnosis includes blood pressure (BP) readings ranging from 120-139 mmHg systolic and/or 80-89 mmHg diastolic.

Unless you have a genetic condition or other physical abnormalities, lifestyle changes can dramatically improve blood pressure. The JNC 7 recommends the following:

1. LOSE EXCESS WEIGHT. Your systolic pressure drops about one point for every two pounds shed.
2. FOLLOW A DASH DIET. **Dietary Approaches to Stop Hypertension** means eating a lower fat diet rich in vegetables, fruits, and low-fat dairy foods. This can lower your pressure 8 to 14 points.
3. EXERCISE DAILY. 30 minutes a day of brisk aerobic activity can lower systolic pressure 4 to 9 points.
4. LIMIT SODIUM. By eating no more than 2,400 mg a day (with a goal of only 1,500mg/day) systolic pressure can drop 2 to 8 points.
5. LIMIT ALCOHOL. If you drink, have no more than 2 drinks a day for men, 1 for women. [1 drink = 12 oz beer, 5 oz. wine, or 1.5 oz 80-proof whiskey]. This can lower systolic pressure by 2 to 4 points.
6. STOP SMOKING. Living with a smoker is also harmful and could cause cardiovascular damage.

The Standard American Diet is rife with processed foods, saturated fat, and salt. Changing the diet and adding daily (yes, DAILY) cardiovascular exercise should be the top two priorities for anyone who wants to possibly get out from under the life or death necessity of pharmaceutical intervention. Remember – medication is not a blanket protection against future heart attacks or strokes. You still need to change your lifestyle if you want to reduce your risks.

Taking supplements like calcium/magnesium, potassium, vitamin C, coenzyme Q10, and essential fatty acids can also be beneficial but should not be a substitute for proper supervision from a medical professional. It is never advisable to self-treat hypertension, so other than the lifestyle changes listed above, do maintain medical oversight of your condition. Certainly, no attempt should be made to get off medications without the proper medical oversight.

Recommended Resources:

“Eat To Live,” Joel Fuhrman, MD, Little, Brown and Company, 2011, \$15.99

"YOU: Losing Weight," Michael F. Roizen, MD and Mehmet C. Oz, MD, Free Press, 2011, \$8.99

"The DASH Diet for Hypertension," Thomas Moore, MD, Pocket Books, 2011, \$15.00

LINDA J. BUCH - BODY LANGUAGE (tm)- October 24, 2011
POSTURE

"I work in an office with a variety of people and notice that most of us have "slumpy" posture while we are at our desks. Often this translates to similar posture when standing as well. What are the long term effects of poor posture and what can we do about it?" Cathy Lee, Portland, OR

"Posture" can be defined as muscular balance and spinal alignment that allows the body to perform with efficiency while also protecting the body from injury and/or deformity. Good posture, when standing, will allow a plumb line to drop from the ear through the shoulder and hip, bisecting the knee and ankle joint; the head is erect and sits directly over the neck and spine; the joints are all working together equally and the body is performing at maximum efficiency.

Pushing against all of this glorious equilibrium are cars, office chairs, computers, heavy backpacks, briefcases, purses, and a substantial number of hours sitting in front of a TV or game station. Way too many of us are going through life looking like commas (,) instead of exclamation points (!).

Over the long term, poor posture can cause spinal compression, reduced lung capacity, chronic back and neck pain, poor circulation, and even poor psychological health (per a study in 2000 published in the Journal of Sports Medicine and Physical Fitness, individuals with poor posture were more likely to have a poor self image and less self confidence). Poor posture also creates muscle imbalances where some become too long and weak while others become too short and strong. This can create chronic joint pain along with other pathologies such as headaches, fatigue, and pinched nerves.

Poor posture often elicits a judgmental response from others, generally on the negative side, when someone who is slouching is thought to be weak, easily cowed, and even less intelligent. So, yes, when a parent chides a child to "stop slouching," there is good reason for all the fussing. But the parent should also take heed and set the example in the first place.

Postural awareness is the first step to bringing a body back into balance and equilibrium from poor posture pathology. This involves more than just pulling the shoulders back when the “posture reminder” floats through the brain.

According to the American Chiropractic Association, proper sitting posture includes:

- *Keeping feet on the floor or on a footrest. Ankles should be in front of the knees.
- *Keep a small gap between the back of your knees and the front of your seat.
- *The backrest should support the low and mid-back.
- *Shoulders should be relaxed with forearms parallel to the ground.
- *Do not sit for long periods of time. Get up and move around every 20 minutes.

Proper standing includes:

- *With knees slightly bent, bear your weight primarily on the balls of the feet.
- *Keep feet shoulder-width apart and let the arms hang naturally at your side.
- *Stand tall with stomach tucked, and shoulders/shoulder blades pulled back and down, respectively.
- *The head should be level, with earlobes in line with the shoulders.

While genetics can sometimes play a part, poor habits and fitness levels are the usual culprits. The posture improvement prescription should include an assessment from a qualified professional such as a physical therapist, chiropractor, or certified fitness trainer. Specialists in the Egoscue Method, Alexander Technique and Rolfing are other options. A strength-training program that will bring all muscles into their proper balance should be implemented. Massage, yoga, T'ai Chi, and Pilates are good activities to improve flexibility and relieve stress.

LINDA J. BUCH - BODY LANGUAGE (tm)- October 10, 2011

PREGNANCY AND EXERCISE

“My daughter is a dedicated exerciser and does classes in kickboxing in addition to running and strength training. She just informed us that she is pregnant and, while we are overjoyed at becoming grandparents, we are concerned about the type and intensity of exercising she should continue to do.” Name Withheld, Huntington Beach, CA

Congratulations to your entire family on the new member headed your way! And, fist-bumps all around to your daughter for being involved in a regular, intense fitness regimen. According to the American College of Obstetricians and Gynecologists (ACOG), most women can safely enjoy 30 minutes or more of moderate exercise every day. That being said, any medical conditions or complications should be ruled out and your daughter should communicate her exercise activities clearly and completely to her physician.

In order to maintain and nourish the new life, everything changes: heart rate, blood volume, respiration, and appetite all make more demands on the body. Scaling back on exercise intensity is particularly difficult for those accustomed to training for competitions or other events but a heightened awareness of your body is called for now. Dizziness, dehydration, nausea, vaginal discharge, contractions, or any other physical anomaly should be taken seriously and attended to by medical professionals.

Exercise is highly recommended for pregnant women. It can help a woman keep her energy up, sleep better, reduce overall discomfort, help with an easier delivery, keep stress under control, elevate the mood, and help the body get back into shape after childbirth. The fact that your daughter is already an exerciser is, therefore, to her benefit. Those women who are not exercisers should begin a program gradually, especially during the first and second trimesters. (Beginning after 26 weeks is usually not recommended.)

Many health clubs and recreation centers offer pre- and post-natal classes. Participation in specialized programs is strongly recommended, particularly if regular exercise is new for you. If you do not wish to join a class, the best choices for physical activity are weight training, swimming, walking, and bicycling (stationary biking is safest in the third trimester).

Basic exercise guidelines for everyone include:

1. Drink plenty of fluids before, during and after exercise. And, do not get overheated. A rise in your core temperature raises that of the baby's as well. The baby cannot sweat off the heat so keeping your core temperature down is critical.
2. Eat more. You will need an additional 300-500 calories per day of nutritional foods, not only because you are expending more calories by exercising but also because pregnancy speeds the metabolism.
3. Warm up and cool down. Gentle stretching and relaxation breathing are good habits to get into before and after exercise.
4. After the first trimester, avoid any exercise where you lie flat on your back. This is because the weight of the uterus can reduce blood and oxygen flow to the baby.
5. Avoid exercising where your balance might be compromised, especially in the third trimester. Also, exercises that are high on the intensity scale or involve bouncing or stress on the joints should be avoided or radically scaled down. This is because hormones released during pregnancy soften the tendons and ligaments and could cause injury.
6. Monitor your heart rate and, be careful not to become overly exhausted when exercising aerobically.
7. Wear loose, comfortable, breathable clothing in layers that can be peeled off if you become too warm. Comfortable shoes are a must.

Resources:

Baby Center, BabyCenter.com

American Pregnancy Association, AmericanPregnancy.org

"How To Exercise When You're Expecting," Lindsay Brin, Plume Publishing, 2011, \$16.00

"Fit & Firm Pregnancy," Denise Austin, DVD, 2006, \$14.98

LINDA J. BUCH - BODY LANGUAGE (tm)- September 26, 2011

**EXERCISE AFTER SHOULDER SURGERY and
REHABILITATION**

"I am a retired health and phys. ed. teacher recovering from major shoulder surgery (biceps tendon and rotator cuff repaired, bone spur and arthritis removed). What type of strengthening exercises can I do now that I am finished with rehab? I want to maintain my active lifestyle and a healthy weight." Mike W. Lancaster, PA

The shoulder joint is a multidirectional wonder both mechanically and physically. The ball and socket design allows your arm to swing, throw, push, pull, and lift in all three dimensions... that is until you injure one or more of the mechanisms that allow all of this mobility. Weakness in some of the surrounding muscles and the fact that this joint has lots of tendons (which receive little oxygen and other nutrients from the blood), make this joint particularly vulnerable to injury.

"Rotator cuff" is the general designation for the four muscles and their tendons that surround the shoulder joint and give that joint the wide ranges of motion we take for granted. Once injured, activities can become very painful and often difficult. As for the biceps tendon, the long head of the two muscles that comprise the biceps muscle is often the one that takes the biggest beating. This is because it attaches at the top of the shoulder joint. Bone spurs usually form because of stress over a long period of time between the muscles, tendons, ligaments and bones in the shoulder joint. Arthritis is usually a given in any joint trauma, especially by the time Boomers become seniors!

Your rehabilitation inevitably focused on restoring range of motion and strengthening the shoulder and surrounding muscles, especially those that control the shoulder blades (scapula). Even though you have finished your rehabilitation, it would be far wiser to take at least six months away from sports and concentrate instead on building up the muscles of the chest, back, and shoulder.

The best exercises will get your shoulder to flex, lift, push, pull, and rotate both internally and externally. Colorado Physical Therapist, Rick Olderman, stresses the importance of focusing on the shoulder blades. "The scapula is the foundation upon which shoulder joint movement rests so it's important to engage the scapula during light overhead presses," says Olderman. "To do this, visualize the scapula pushing or pulling the arm rather than the shoulder muscles pulling or pushing. This should help recruit the powerful scapular muscles to assist with the lift." Strength training exercises that primarily involve the muscles of the shoulder blades are seated rows, lat pulldowns, shoulder presses (start with light weights), and assisted chins.

Other exercises to consider include push-ups (start on a wall and VERY gradually progress to more difficult positions). Dumbbell raises (again with light weights) for the front, lateral, and rear deltoid muscles should be included as well. As for internal and external rotation, continue with the exercises you were taught during your rehabilitation.

A good diet is also a key when trying to heal after surgery. Protein is important because this macronutrient is responsible for repairing cells. Protein is composed of amino acids, which are the actual building blocks of lean tissue and promote the healing of post-surgical wounds. Fish, egg whites, chicken, beans, peas, and lentils are some of the most beneficial.

Among the micronutrients, vitamin C is also helpful in healing wounds because it helps produce collagen and elastin that aid in muscle repair and flexibility. Citrus fruits are the most common foods for vitamin C, but cabbage, bell peppers, and sweet potatoes are also appropriate choices. Vitamin A is good for tissue repair and skin regeneration. Yellow/orange fruits and vegetables (cantaloupe, carrots, sweet potatoes, squash) and spinach are also good sources.

RESOURCES:

"Fixing You: Shoulder and Elbow Pain," Rick Olderman, MSPT,

Boone Publishing, 2010, \$9.00

“Sports Nutrition Guide Book,” Nancy Clark, MS, RD, 2003, \$19.95

“Framework,” Nicholas DiNubile, MD, 2005, Rodale, \$18.95

“Strength Training Past 50,” Wayne Wescott, 2007, \$17.95

LINDA J. BUCH - BODY LANGUAGE (tm)- September 12, 2011
SIX-PACK ABS

"Are those "six-pack abs" I see in magazines for real? What is the best way to get a great looking torso?" Sam Napelli, Chicago, IL

Myths and theories abound when it comes to the Holy Grail of hot-body chic, the elusive "Six-Pack Abs." It is tempting to try supplements or special foods that promise to "melt" away fat "instantly," buy DVD's of "guaranteed" exercises, or purchase special equipment that promises a body to rival Matthew McConaughey's. But remember: "Buyer Beware." The only thing that will get "ripped" is money from your wallet.

The hardest thing for most people to accept is this: *There is no such thing as spot reducing.* It is simply not possible to turn a "keg" into a "six-pack" via a specific abdominal exercise program or by ingesting magical foods. As exercise physiologist, Kelli Calabrese, points out, "A lean midsection takes a combination of good nutrition, cardiovascular conditioning, and abdominal training. Those who see the best results combine all three." Any product that promises otherwise should be regarded with suspicion.

To work towards a leaner midsection (and body as a whole) first examine your eating habits. Computer programmers know that when garbage is programmed in, garbage is what comes out. The same "garbage in, garbage out" adage applies to the body. A clean diet composed primarily of lean, whole foods and limited processed foods and sugar will get you to your goal a lot faster than the frequent consumption of so-called magic foods or pills. Do a food diary for a week or two and take an honest look at the quality and quantity of the foods and beverages consumed. An appointment with a Registered Dietitian can help you determine your metabolic needs regarding calorie intake.

Next, examine your exercise habits. Cardiovascular exercise is a must because it will help reduce subcutaneous fat that is stored under the skin. This does not mean you have to start running marathons, but

do try to find something you like that requires continuous, hearty physical effort. If jogging or treadmills are not to your liking check out race walking, dancing, cycling, rollerblading or any other activity that promotes heart and lung health. Also, don't pass on the intense, anaerobic activities like boxing, kickboxing, sprinting, or bicycling on varied terrain. Intense, sudden bursts of energy do wonders for conditioning and a lean physique.

Strength training should also be part of your exercise prescription. There are three types of muscle tissue in the human body: cardiac, smooth, and skeletal. Skeletal muscles, comprising the 600-plus muscles of the muscular system, are the only voluntary muscles in the body, which means they perform when we make them do so. All skeletal muscles respond to exercise stimuli in the same way: when systematically overloaded, they become larger and stronger. Focusing just on the abdominal muscles, therefore, is a mistake – use the whole body to promote a leaner physique.

Add some explosive, multi-joint exercises (squats with presses, lunges, and squat-thrusts (“Burpees”)) to your strength training routine. By mixing explosive intensity into the normal strength workout you will greatly improve your fitness and body composition. A certified trainer can assist you in organizing a good total-body program.

Even though genetics, age, and gender determine the shape of your abdominal muscles, with proper training you can improve their quality. A good exercise program will focus on the best way to stabilize, strengthen, and support your goals.

LINDA J. BUCH - BODY LANGUAGE™, August 28, 2011
Dirty Dozen of Gym Etiquette

"I have been a gym member for many decades. It seems, however, that people are becoming less respectful of others. Perhaps a reminder on gym etiquette is in order?" Gordon Greene, Bellevue, WA

Myopia strikes most everyone with a gym membership, blinding us to the fact that others are using the same space. Somehow we manage to miss the towel on the floor, the sweat on the machine, or the plates on the barbell.

It behooves us all to remember that, when we are in public, our behavior matters and affects others. Each of us must be mindful of whether we want that affect to be positive or negative. After sifting through many sources for gym member complaints about the behavior of others, here are the top Dirty Dozen (not in any particular order):

1. **PUT YOUR EQUIPMENT AWAY.** If you can put the weights on the bar, you can take them off; if you can pick up the dumbbells you can put them back on the rack. (Think of it as part of your workout.)
2. **CLEAN UP YOUR OWN SWEAT.** No one likes to lie down on someone else's sweat or grab on to a bar or handle that is slippery with someone else's bodily fluids. Use a towel to both lie down on and to clean up after yourself. Many gyms provide spray bottles with disinfectant to spray down and clean your workout area when you are through. Use it.
3. **THE LOCKER ROOM IS NOT YOUR PERSONAL BATHROOM.** Taking lengthy showers while others are waiting, and leaving your products – and hair on the drain and in the sink – behind is rude and gross, respectively. Also, share the hair dryers and mirrors and put your dirty towels into the hamper.

4. **SHARE EQUIPMENT.** Resting between sets is normal. Resting on the equipment while others are waiting is wrong. Always allow others to work in while you rest. Also, reading magazines and making phone calls while sitting on the equipment is equally frustrating for others who are waiting.

5. **WATER FOUNTAINS ARE NOT SPITOONS.** A water fountain used by everyone in the gym is not the appropriate depository for chewing gum or “loogies,” period.

6. **PUT AWAY PERSONAL ITEMS.** Your gym bags, purses, briefcases, clothing, and extraneous electronic gear should not be cluttering the floor. Lock them in the designated locker or storage areas.

7. **CONTROL YOUR PERSONAL NOISE LEVELS.** Screaming, oofing, and grunting while working out is unnecessary and disturbing to others. Equally annoying are cell phone conversations shared with the entire gym. Take conversations outside.

8. **RESPECT A CLASS IN PROGRESS.** If you arrive late, keep a low profile. Also, if you know you will be leaving early, let the instructor know.

9. **CLEAN YOUR WORKOUT CLOTHING.** It is great that you are working out hard enough to create sweat but no one really wants to smell your efforts. Remember how you had to take your high school gym clothes home every week to be cleaned? That rule still applies.

10. **REPORT BROKEN EQUIPEMENT.** If you notice that a treadmill is make a funny noise or that a cable is fraying, let management know immediately. Letting things go could cause harm to the next person who uses the equipment or put a piece out of service for a long time.

11. **NO BULLYING.** Hovering around equipment, staring at the current user, huffing and pacing in a childish attempt to hurry them

along, is just plain bad behavior. No workout is set in stone. You should always have a Plan B and even a Plan C for yourself just in case the equipment you want is unavailable.

12. **SHARE THE SPACE.** Be mindful of others working out and try not to walk in front of the mirror they are using or impede the flow of traffic by setting up a stretching area where people need to walk.

LINDA J. BUCH - BODY LANGUAGE (tm)-June 27, 2011

Tendonitis and Exercise

About three decades ago I fractured my right fifth metatarsal (small toe). It was not set properly and no subsequent surgeon wanted to go in and re-break it. Now I have tendonitis across the bridge of my foot from walking, exacerbated further by my re-starting a fitness program. How do I deal with this and still keep exercising? How long does this last? Carrie White, Englewood, CO

It never fails. Just as you are getting into a good exercise routine, ouch! Foot pain, particularly swelling, pain at night, stiffness, and that bothersome hot feeling. Good news would be, "It's a strained muscle;" bad news is, "It's tendonitis." Since muscle heals more quickly than connective tissue (tendons and ligaments), the healing process for tendonitis can seem interminable. Unfortunately this may mean stopping your current exercise preferences and switching to others that, in your case, do not exacerbate the feet (swimming and using an upper body ergometer come to mind as possibilities).

Foot tendonitis – usually affecting the tendon that helps to hold the arch of the foot – is most often caused by overuse, particularly from not stretching properly before activity. However, this can also occur from too much standing, running steep hills, performing activities on uneven ground, and wearing incorrect footwear for the activity. This condition can also occur simply because of aging because tendons tend to become more brittle as we literally and figuratively march along through time.

Stopping activity is the first step, followed immediately by a first aid method called R.I.C.E: Rest, Ice, Compression, Elevation. Apply a towel-covered icepack for 20 minutes several times throughout the day. By also elevating the foot, any swelling can be reduced. Over-the-counter anti-inflammatory medications can also be helpful. Be prepared to keep doing this regimen until the symptoms go away. A physician, however, should treat intractable or recurring pain.

Cortisone shots, shock wave therapy or even surgery may be required.

Denver chiropractor, Greg Mortimer (Forgive, Smile, Play Family Wellness Center), works on a lot of athletes, both professional and amateur. He suggests chiropractic solutions but also deep tissue massage in order to restore mobility. "After the foot is moving better, traditional stretching is very important," says Mortimer, "and should involve all muscles across the foot joint." If the knees are healthy, Mortimer also suggests trying to sit on your heels when barefoot. "Doing some mini-trampoline work barefoot also helps."

Be prepared to perform some stretches for the foot and calf three to four times a day. Most will also involve stretching the plantar fascia on the bottom of the foot as well as the Achilles tendon from the heel to the calf. Some examples are:

1. Draw the alphabet with your foot as you are sitting in a chair or on a couch. By having your foot draw the alphabet from A to Z, your foot will be stretched and flexed in all directions.
2. When barefoot, stand on "tippy toes" and walk 20 steps, increasing each day until you can walk on your toes for 100 steps. In addition to feeling a stretch in the foot, you will also feel one in your calf.
3. Stand on a step with just the balls of the foot, heels hanging over the edge. Lower your heels slowly until you feel the stretch in the heel and calf, hold for a count of three, then come back to the starting point. Repeat this about 20 times.

LINDA BUCH - BODY LANGUAGE (tm)-June 13, 2011
TRAINING FOR MOUNTAIN BIKE RACING

"I am a 20 year-old cyclist who wants to do the Marathon Mountain Bike Championship. I need to improve my VO₂ max and improve my lactic acid threshold. What sort of training should I do?" Scott P., Reno, NV

For 2011 and 2012 the Marathon Mountain National bike Championships will be held in Bend, Oregon in September (for 2011 it will be September 17th). USA Cycling is the organizing body for this event. Be sure to contact them (see side box) to get all of the registration particulars.

This competition will require endurance and the ability to push through the pain of tired muscles and lungs over varied terrains and distances, which include technical sections, single track, and a 25-mile climb up Mt. Bachelor. Since you are focusing on a very grueling event where aerobic endurance dominates, I will have to assume that you are an avid cyclist who is already in pretty decent condition.

Your objective is to improve your body's efficiency for using oxygen and to train intensely enough to increase all your energy systems, specifically training the body to use the lactic acid system as fuel as well as improve the lactic acid threshold.

But first, some definitions:

"VO₂max" (maximum volume of oxygen) refers to aerobic efficiency by measuring the maximum amount of oxygen a person can utilize in one minute per kilogram of bodyweight. The more efficiently your body can process and use oxygen, the fitter you tend to be. (Also, improving the anaerobic VO₂max as well will help you on any explosive sprints.)

"Lactic Acid" is a chemical by-product formed during intense exercise when the muscle sugars (glycogen) are broken down for energy in the absence of oxygen.

“Lactic Threshold” is that point at which the muscle transitions, as the coaches at Flamme Rouge in Europe (flammerouge.je) would say, “From comfortably hard to hardly comfortable.” They further describe this threshold as, “The point at which your lactic acid production overcomes your body’s ability to flush it away.” So, the greater your oxygen capacity the longer you can go before hitting the lactic threshold wall; this will result in greater physical efficiency for your race.

According to Certified Strength and Conditioning Specialist (CSCS) Lee Cherry, who is also a master USA cycling and triathlon coach, you will need to improve both aerobic and anaerobic endurance for this event. He suggests performing the workout schedule listed below.

Current research suggest making changes to your routine every two to four weeks in order to keep evolving with the adaptations from this training. He therefore recommends mixing it up by performing two workouts in weeks one and two, three workouts in week three, two workouts in week four, and no workouts in week five, (a necessary rest period which will allow for the training adaptations to occur; spend the time stretching and working on your form).

According to Cherry, “This routine will target your aerobic endurance, anaerobic VO₂max and overall sustainability, thus improving your ability to utilize lactate build-up in the blood more efficiently.” This means you will be able to go further, faster, and stronger than you ever have before.

“But remember,” says Cherry, “Just because you can do it doesn’t always mean that you should, so pay close attention to how your body feels before, during and after the workouts. Too much, too hard, too often, and too soon are the key culprits to overtraining and burnout.”

Sidebox

Suggested training (heart rates are approximate):

-30 min warm up

-10 min at 130-150 beats per minute

-10 min at 155-160 beats per minute

-Pedal easy for 5-10 minutes. The idea here is to feel fresh for the hard efforts to come.

-6 min at 160-170 beats per minute

-Pedal easy for 6 minutes. Try to get you heart rate to drop under 130 beats per minute

-6 min at 160-170 beats per minute

-Pedal easy for 6 minutes. Try to get you heart rate to drop under 130 beats per minute

-6 min at 165-170 beats per minute

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-10 x 15 second sprints with 30 seconds rest between each

Resources:

USA Cycling, usacycling.org

Book: "Food for Fitness," Chris Carmichael, Putnam, 2004, \$25.95

Coaches and clinics: Better Ride, betterride.net

Lee Cherry, Certified Strength and Conditioning Specialist CSCS,
Exercise Physiologist ACSM, 303-887-8160

LINDA J. BUCH - BODY LANGUAGE (tm)- May 23, 2011
INSOMNIA AND SENIORS

"I have always made exercise a regular part of my weekly schedule, mainly swimming and walking the dog. Now in my 9th decade, because of lumbar arthritis and unplanned weight loss, I am unable to exercise with "sweaty" vigor. Consequently, I now suffer with annoying insomnia. Can you suggest any change in my routine or diet that will help me regain refreshing sleep without medication(s)?" Sleepless Geezer, Lancaster, PA

"If I'd known I was going to live this long, I'd have taken better care of myself," said the late jazz composer and pianist, Eubie Blake (who died at age 97). It sounds like you have been a diligent exerciser and have just run into some of the usual problems with aging: sarcopenia (muscle loss) and insomnia. It is a vicious circle-you try to exercise but arthritis pain truncates the effort, which leads to doing less exercise, which leads to muscle loss which in turn leads to having less energy to exercise. The muscle loss contributes to weight loss not only because of the diminished body mass but also because of the subsequent decrease in appetite.

One of the best ways to maintain or increase muscle mass is through resistance training. According to Scott Trappe, director of Ball State's Human Performance Laboratory which published their study in the "Journal of Gerontology: Biological Sciences" in 2003, "Engaging in a once a week resistance training program seems to be effective to prevent the advancement of sarcopenia." In fact, a study completed at McMaster University in Ontario, Canada, in 2008, determined that "regular resistance exercise is a potent and effective countermeasure for skeletal muscle aging."

The good news is that you can do this without spending hours at the gym or without going to a gym at all. The American College of Sports Medicine (ACSM) recommends one set of an exercise per muscle group (in general this involves the chest, back, shoulders, legs, butt, and abdominals) per week. Twice a week is optimal but once a week is a good place to start.

If you have access to a gym check into having the fitness personnel teach you a simple program using the weight training machines. As you become comfortable with the machines, progress to the use of some free weights. If you prefer home exercising, some inexpensive resistance bands or pairs of dumbbells (five, eight and/or 10 pounds) can be purchased at most sporting goods stores. The Centers for Disease Control and Prevention (CDC.gov) provide a whole program online or you can call 800-CDC-INFO for their "Strength Training for Older Adults" booklet.

There are also a few things you can do to try to ameliorate the insomnia. This will mean shifts in some things that have become routine, but it is worth the experiment.

Watch your caffeine intake late at night. Caffeine is not just in coffee and tea but also in chocolate, soft drinks, frozen desserts that contain coffee or pieces of chocolate candy bars, and over-the-counter drugs like acetaminophen and aspirin. For a complete list of items that contain caffeine, go to the website for Center for Science in the Public Interest (cspinet.org).

Drinking alcohol at night can also be problematic. Alcohol can make you feel relaxed but it leads to dehydration after only a few hours, which will wake you up. Alcohol also affects the ability to get into deep, quality REM sleep. Also, be careful of mixing medications and alcohol. Most do not play well together!

Napping in the afternoon can be another contributor to insomnia. Instead of resting in the afternoon in front of a TV, try to either stay alert by engaging in games or puzzles or, if you feel you need to take a nap, set your alarm to wake after 20 minutes or so.

Finally, if there are any loud or lighted clocks or other noise distractions in the home or bedroom, remove or silence them. If this is not possible, try earplugs or "white noise" such as a fan or soft music.

LINDA J. BUCH - BODY LANGUAGE (tm)- March 28, 2011

BACKYARD TRAMPOLINES

"I am thinking of getting a trampoline for my family to use for fun and exercise. Are they safe? What is the best way to go about this?" Sam Mikowski, Denver, CO

In 1980, a NASA study on rebounding published in the Journal of Applied Physiology* stated, "Rebound exercise is the most efficient, effective form of exercise yet devised by man." NASA found that rebounding was 68% more efficient than a treadmill because the G-force created by jumping overwhelmingly increased the oxygen absorption in the body due to the alternating experience of being weightless one minute and impacting a more solid surface the next.

This creates a pumping action in the body that pulls waste products out and oxygen and nutrients into the blood stream. They also discovered that rebounding was helpful in rebuilding the bone and muscle lost by astronauts due to extended weightlessness. For us earth-bound humans, this is good news indeed.

Rebound exercise is lauded and recommended by physicians, exercise researchers and specialists worldwide. One reason is that, when using a personal-sized mini trampoline, it can be performed in the home or office. Because bouncing is a fun and efficient way to accomplish cardiovascular exercise, people tend to enjoy, rather than evade, a workout.

Unfortunately, backyard trampolines send hundreds of thousands of children (and some adults) to the hospital each year to be treated for head, neck, and spine injuries. These injuries are frequently life threatening and crippling. A backyard trampoline, therefore, should be dealt with as a serious purchase with clear understanding of risks as well as rewards. This is not a toy.

Marc Rabinoff, Ed.D. Professor, Human Performance and Sport Department at Metropolitan State College of Denver, has been a

voting member of the American Society for Testing Materials (ASTM) since 1995. As a Board Certified Forensics Examiner, he has been retained in over 300 cases in litigation where equipment failures have injured people. He warns that the only way this equipment is safe is if everyone obeys these three rules to the letter:

1. No double jumping – only one person jumping at a time.
2. No flips or somersaults.
3. Direct supervision at all times.

“90% of injuries on trampolines are from backyard trampolines and 60% of those injuries are from falling off. Many of those people are now paraplegics,” Rabinoff. Enclosures for all trampolines are now the industry standard, which has helped reduce injuries where a person might fall off. However, the cheaper – and most widely available--varieties, made with low-grade metals, springs, pads, and mat materials, are still hazardous because the design allows jumpers to slip through the springs, get tangled in the enclosures, and suffer injuries from hitting support rods.

“Parents are being led to believe that if they put up an enclosure that they are installing a safety net. Unfortunately, this is just a false sense of security,” says Rabinoff. He explains that the incidence of closed head injuries – especially from people crashing into each other as they bounce on the mat together – have increased dramatically. “Even with an enclosure, the three rules listed above still apply,” urges Rabinoff. “This equipment is not a playpen.”

The only backyard trampoline brand recommended by most professionals is “Springfree Trampoline,” (Springfreetrampoline.com, 1-877-586-7723). Springfree created one-of-a-kind design where the impact areas that can cause injury are eliminated and the materials used in production are the finest available, making it the safest trampoline on the market. Keith Alexander, Ph.D., a New Zealand engineer and member of the ASTM board, designed this product,

inspired no doubt by the horror of seeing thousands of children injured on the more widely available and flimsier versions.

The cost for a “Springfree” will run about \$1200 or more dollars, compared to \$300 for those commonly found at a discount store. But the high quality and safety features are worth it.

*[49(5): 881-887, 1980]

LINDA J. BUCH - BODY LANGUAGE (tm)- March 14, 2011
Interval Training

"I've been trying to introduce more variety into my cardio workouts. Do you have any suggestions for a more challenging workout?" Lori Stratheim
Denver, CO

Doing the same workout week in and week out can set any fitness program into a state of stagnation, and tedium. Interval training can be just the answer to exercise ennui.

Very generally, interval training is the insertion of intense bursts of speed for short periods of time followed by a longer period of recovery in order to stimulate the body's different energy systems and pathways. According to Jason Karp, PhD, from his article on interval training in IDEA Fitness Journal, February 2011, "Interval training manipulates four variables: time (or distance), intensity, time of each recovery period, and number of repetitions." This allows for a lot of creativity in a workout as well as a faster track to better overall fitness in a shorter period of time.

The fitness industry is paying a lot of attention to the 20 years of research proving that interval training improves vascular health both aerobically and anaerobically. This means better endurance over the long term (aerobic) as well as improved capacity to perform explosively for shorter periods of time (anaerobic), something that aerobic training alone does not accomplish.

In a very small nutshell, there are three general ways to organize interval training. But be sure you warm up and cool down before attempting interval training. And your level of intensity will vary according to your current conditioning. Be mindful of how you feel and adjust intensity accordingly.

Aerobic, or cardiovascular, intervals are designed to improve the heart's ability to pump both blood and oxygen to the muscles. An example of this is to perform three minutes of cardiovascular exercise

at your maximum heart rate, followed by two and a half to three minutes of active recovery (keep moving just a much slower pace in order to slow your heart rate gradually). Repeat this five times.

Anaerobic capacity intervals are designed to help muscles utilize glucose more efficiently and recover and regenerate energy more quickly. An example of this interval is to perform for 30 seconds all out followed by two minutes of active recovery. Repeat this four to eight times.

Anaerobic power intervals are helpful for improving performance in activities that are short term and high intensity, such as weight training and sprinting. An example would be performing 10 seconds all out with three to four minutes of passive rest where your heart rate drops more quickly; do some gentle stretching, for example.

According to Karp, interval training is now being used to help reduce heart disease risk factors in the obese, improve performance after coronary by-pass surgery, and reverse risk factors in metabolic syndrome, such as high blood pressure, insulin resistance and excessive fat in the abdominal region, and reducing inflammation in the blood.

The subjects in the research for interval training were pushed hard, performing the training almost daily for about six-weeks. This level is not recommended for the rest of us but once or twice a week would do wonders for your fitness level. So, if you are ready to be the fittest of the fit and the buffest of the buff, add some intensity to your work out and try some interval training.

To read more from Jason Karp, Ph.D., go to: RuncoachJason.com

Other recommended reading:

“Younger Next Year,” Chris Crowley, Henry Lodge, MD, Workman Publishing, 2007, \$12.95

"P.A.C.E., The 12-Minute Fitness Revolution," Al Sears, MD,
Wellness Research and Consulting, 2010, \$24.95

LINDA J. BUCH - BODY LANGUAGE (tm)-February 21, 2011
Latest Trends for 2011

“What are the fitness trends for 2011? I am up for trying some new things and getting back to having some fun while also getting more fit.” Abby R., Denver, CO

If 2010 took its toll on your enthusiasm for maintaining a gym membership, taking classes, or hiring a trainer, this is the year to dust it all off and renew momentum for health and wellness. While it would be nice if the health care industry would figure out that prevention is cheaper than the cure and create incentives for exercise, it still behooves all of us to assume that responsibility and get or keep moving.

According to the American Council on Exercise (ACE), for 2011 people are deciding that mutual accountability is what can make the difference between showing up and doing the work or falling back into excuses for remaining sedentary. Yes, the “buddy system” is back, regardless of whether it is a workout partner, fitness class, or peer group that decides to do activities together. Web sites like “Meetup.com” have been formed to help exercisers looking for workout connections to find each other.

Boot camps still rule as one of the most popular classes for 2011. Seems people cannot get enough of pushups, walking lunges, burpees, sprints, and other sorts of intense physical challenges. Boot camps incorporate all aspects of a quality fitness program into each session – strength, flexibility, endurance, and cardiovascular drills in both indoor and outdoor settings. Most major fitness facilities offer boot camps as part of their group exercise programming and private studios and boot camp companies abound.

Zumba Fitness, whose motto is “Ditch the workout, join the party,” was created by accident in the 1990’s when Colombian fitness instructor, Alberto “Beto” Perez, forgot his standard aerobic music for a class he was about to teach and used the high-energy Latin

dance salsa and merengue music he had on hand instead. By 2001, “Zumba” was trademarked and taking hold in all markets, from classes to DVD’s to video game platforms and even apparel. Their philosophy is to “love everything you do, even your workout.” With class special options that also include baby boomers, kids, and aquatic and circuit versions of Zumba, they just might succeed in making exercise too fun to ignore.

Another dance-fitness form that is getting hot in Los Angeles (which means it is just a matter of time before it hits here) is Yoga Booty Ballet. “YBB,” as its enthusiastic aficionados call it, combines yoga, ballet, and aerobic dance with the goal of better flexibility and leaner muscles for its participants. For people who love to dance and enjoy yoga, yet want something more active than a yoga class provides, this is a fun option. Until more local instructors are certified to operate classes, here in Colorado we may have to be content with DVD’s for a while.

TRX Suspension Training, developed by Navy SEAL, Randy Hetrick, is not only a total body workout but a portable tool as well. The entire piece consists of nylon straps that can hook up anywhere and be modified to work with anyone, from the sedentary to the super athlete. More fitness clubs have them on hand and many are even doing classes just with the TRX (Total Resistance eXercise).

Strength training, core training, functional fitness, yoga, and spinning are all still as popular as ever, with Pilates taking a hit in these harder economic times (due most likely to the specialized training and equipment required).

RESOURCES

ZUMBA: ZumbaDenverCO.com, 720-514-9010, or find a class at zumba-fitness.meetup.com

TRX: The Power Method, thepowermethod.com, 303-803-2438

BOOT CAMPS: BCOR, Scot's Denver Boot Camp, Wash Park Boot Camp, Genesis Fitness, Altitude Peak Fitness, Mile High Adventure Fitness Boot Camp, to name a few.

YOGA BOOTY BALLET: Try: [meetup.com/Team-Fitness-Colorado](https://www.meetup.com/Team-Fitness-Colorado/), DVD from [beachbody.com](https://www.beachbody.com)