



2006 ARTICLES

No part of any of the articles contained in this eBook or on the website (www.LJBalance.com) may be used without consent from the Author, Ms. Linda Buch. If you wish to use any or part of the articles, you may do so after contacting the author at Linda@LJBalance.com -- however, you agree to (1) note Linda Buch as the Author on any printed or electronic disbursement of any articles (2) no part or whole of any document may be sold or included in any packages, CDs or packets and (3) you make no changes to the content in any article. This includes rewriting any portion of the article, cutting any words from the article or adding any words to the article. Doing so is illegal and punishable by law.

Copyright©2001 through Infinity & Beyond! -- Balance Enterprises -- All rights Reserved

Articles contained in this eBook for 2006

Heat Zone Training
Strength Exercise Options
Drink Water or Die!
Muscle Gain and hyperglycemia
Knee Pain
VO2 Max
Taking the Gym Workout Home
Cycle Training
Fiber with Shakes and Fresh vs Frozen
Waling Poles
Ankles & Exercise
Muscle Loss and Weight Gain as we Age
Skin Health
Different Weight machine Workouts
Improving Grip Strength
Post Exercise Caloric Burn
Strengthening the Back
Exercise and Kidney Disease
Sports Drinks, Cramping and Marathons
Free Weights vs Machines Part I
Free Weights vs Machines Part KK

Seniors & Tai Chi
Morning Exercise vs Morning Eating
Waling with Weights
Best Machine for Cardiovascular Workouts
Meal Replacement Bars
Hamstring Exercise Help the Knees
Gluten Sensitivity and Exercise
Flabby Skin after Weight Loss
Improving Circulation and Muscle Tone
Weight Belts – Yes or No?
Coping with Stress
More Hyperglycemia & Weight Lifting
Combating Fatigue and Chronic Illness
Aerobic & Strength Training Balance
Accurate Body Fat Measurements?
Seniors & Exercise: How to Start Part I
Seniors and Nutrition Part II
How much Resistance Training For Seniors
Fitness & Time Constraints
Fewer Sets

LINDA BUCH - BODY LANGUAGE (tm)-January 2, 2006

HEART ZONE TRAINING

“I am 36 and workout three times a week at a heart rate of 173-187 beats per minute (bpm), according to my heart rate monitor. A friend told me I was training too hard and suggested I be doing more “Zone” training? I also lift weights once a week.” Renee Toney, Greenwood Village, CO

The body is fueled primarily by carbohydrate (stored in the body as glucose) and fat. Carbohydrate is the fuel of choice when warming up and during explosive moves like sprints. These stages are referred to as *anaerobic* which literally means “without oxygen.” Other examples of anaerobic exercises are weight lifting, tennis, boxing, and sprinting where the action is explosive, quick, and intense. Anaerobic training is often accompanied by a burning sensation in the muscles that comes on quickly, which is one reason why anaerobic activity is of short duration.

Conversely, the primary fuel for *aerobic* training is fat. When training aerobically, your breathing and heart rate level off and your body (with the help of oxygen, glucose and a zillion other complex chemical reactions) starts to utilize fat as an energy source. It takes time to achieve this state, which is why a gradual warm-up of at least ten minutes is advised. When working out aerobically, you will feel as if your body is at “cruising speed.” You can usually maintain this level for at ten to 15 minutes (and longer as fitness improves) before tiring.

“Zone Training” means exercising aerobically and anaerobically throughout the workout based on percentages of your Maximum Heart Rate (MHR). MHR refers to the highest number of times the heart is able to contract in one minute. VERY basically, there are five zones that range from 50-60% of your MHR (for warm up and cool down), 60-70% of your MHR (where the best fat utilization and training takes place), and 80-90% of your MHR (for short periods of time to improve endurance and fatigue fighting abilities).

The best way to find your MHR is to have it measured via a clinical test by a cardiologist or exercise physiologist. People in good health who are regular exercisers can usually get by with the standard “220 minus age” for men and “226 minus age” for women.

If we use the simple standard of 226 minus your age (36), your MHR is 190 beats per minute (BPM). Since you are working out at 173-187 BPM, you are exercising at 91-98% of your maximum heart rate. This probably puts your body in an anaerobic state for most of your workout. So, even though you are exercising at a high intensity, huffing and puffing enough to sound alarms at the National Hurricane Center, your body is utilizing less fat and more glucose for energy, which is counters your goal of dropping body fat. Zones that are more aerobic (where fat is the primary fuel) would mean a heart rate range for you of about 114-133 BPM.

The most reliable and respected resource is the book from champion triathlete and exercise specialist, Sally Edwards: HEART ZONE TRAINING (Adams Media

Corporation, \$10.95). Workbooks and manuals are also available. A website designed for guidance and support is: <http://www.heartzones.com>.

LINDA BUCH-BODY LANGUAGE February 27, 2006
FEWER SETS

“I am 64 and have been lifting weight for about six years and walk six miles three days a week. Does it matter if I do one set of 12-15 repetitions or do I need to do three sets? I find that if I do more than two sets, I get a real bad spasm in my upper back and neck and in the lower back.” Marilyn Fleming, Berthoud, CO

Before I answer your question about how many sets per exercise are necessary let's look at some red flags on the pain you are experiencing. Lifting weights builds muscle, reduces body fat, increases energy, lowers blood pressure, increases bone density, and can even reduce the pain of arthritis. **IF** you have been cleared by your physician to lift weights, then continue strength training; **BUT** check into hiring a personal trainer--who has experience with senior exercisers--to examine your particular routine. (To find a trainer in your area, call the American Council on Exercise, 1-800-825-3636). It is possible that your form needs to be adjusted and/or that some exercises need to be changed to others that are less stressful on joints, neck, and back.

An experienced exercise professional can organize a workout program for you that will balance the strength between all of your disparate muscle groups. Too often we humans will just do the exercises we like to do, leaving the less popular areas of our bodies for “next time.” Pain is the usual result.

How is your posture? Pain will undoubtedly occur if you are not holding yourself properly while lifting. Also, when you walk, are you carrying yourself erect, shoulders level, head neutral, knees a bit soft, abdominal muscles firm, etc.? Or are you leaning forward with your shoulders hunched, back round, and chest muscles squeezed? Good posture can relieve a world of pain.

As to your original question, how many actual sets do you need to do for strength training, research has revealed some interesting new information. According to a new study from the University of Florida, the gains between those who did three sets per exercise over those who did one set was a whopping TWO PER CENT. The caveat on doing one set instead of three is that form and intensity are crucial. In other words, what is saved here is *time*; intense effort and perfect form assume greater importance. According to Joseph Quatrochi, Ph.D., Associate Professor of Human Performance, Sport and Leisure Studies at the Metropolitan State College of Denver, fewer sets is a good plan for those with tight schedules. He also adds, “For those who achieve a training plateau, adding additional sets may prove helpful.” (Attention readers of this column who work with personal trainers: keep this last addendum in mind before you shove this column under the nose of your poor, hard-working trainer and beg to do less!) Remember that the group in this study who just did ‘one set’ had the researchers with them at all times monitoring their workouts and designing their programs.

In short, it is OK to “just do it” for fewer sets, but make sure you “just do it” absolutely **RIGHT** in order to avoid pain yet create gain.

LINDA BUCH - BODY LANGUAGE (tm)-February 6, 2006

SKIN HEALTH

“How do I keep my skin healthy? Are skin supplements and creams worth the money and do they work?” Karry Oni, Los Angeles, CA

About six pounds of our body weight is skin. Skin is not only the largest organ in (on?) our body but it is also one of the busiest, protecting us from germs and infections as well as being a barrier to the environment.

General guidelines for skin care are:

1. Drink plenty of water.
2. Cleanse daily (cleanse the face twice, morning and evening).
3. Moisturize.
4. Eat Good food. Fresh fruits, vegetables, and fish are all good for skin health.

Unfortunately, for those of us who love to be outside, sun exposure does the most damage. Great strides have occurred in the past decade in the creation of viable sunscreens, and effective—even stylish—clothing that blocks the sun without making us look like walking cabanas.

Manufacturers know that wrinkle and age-spot reduction are concerns as we age and spend \$billions\$ trying to convince us that their particular potion will return your skin to the dewy youthfulness of a 16-year old. Most claim to “reduce wrinkles” and/or “reverse damage caused by aging and sun exposure.” To see if this is true, the **Mayo Clinic** took a look at the various ingredients in many of the over-the-counter skin creams and provided this assessment:

Alpha-Lipoic acid penetrates skin cell membranes and boosts the effectiveness of vitamins C and E. It can act to exfoliate dead skin cells and reduce the appearance of wrinkles. Products containing this do appear to reduce fine wrinkles and brown spots. A side effect can be inflammation, however. *Coenzyme Q-10*, *Copper peptides*, *Growth factors (kinetin)* *Soy isoflavones* and *Tea extracts* all seem to improve fine wrinkling, diminish age spots, and even protect against sun damage. Long-term effects are not known and the Mayo Clinic feels more studies are needed.

The four most popular additives--*vitamin A (retinol)*, *vitamin C*, *vitamin E*, and *collagen*—seem to be the least effective. *Vitamin A* is an antioxidant, which neutralizes free radicals (unstable oxygen molecules) that cause wrinkles. In spite of claims that retinol “works deep below the skin’s surface to smooth wrinkles,” the FDA warns that many OTC preparations contain no retinol! *Vitamin C* is hard to keep stable and degrades rapidly *unless* it is stored in an airtight container that is also light resistant. *Vitamin E* can cause contact dermatitis (swollen, red, itchy skin). Also, the type of vitamin E most commonly found in cosmetics (tocopherols and tocopherols acetate) is poorly absorbed. *Collagen* is not absorbed through the skin and does not increase the body’s production of collagen.

When it comes to questions on the best solution for your particular skin situation, see a dermatologist. Doctors are better equipped to handle serious skin questions, not Madison Avenue.

As for supplements specifically marketed for wrinkle-reduction, buyer, beware. The skin is a complex organism and no artificially assembled product is a cure-all. Eat wholesome foods in a wide variety to get all of your nutrients and take a good (inexpensive) multivitamin as a back up. Use the money you save to purchase sunscreen and a wide-brimmed hat.

The entire Mayo Clinic report can be read at: <http://www.mayoclinic.com/health/wrinkle-creams/SN00010>

LINDA BUCH - BODY LANGUAGE (tm)-February 13, 2006
DIFFERENT WEIGHT-MACHINE WORKOUTS

“I get bored doing the same old pushing and pulling on the machines and weights at the gym. What can I do to spice it all up and maybe get better results?” Carol Kingsly, NYC, NY

Anyone who has been exercising in fitness facilities has an historic link to Arthur Jones, inventor of the “Nautilus” strength training system. In 1970, he developed high quality equipment that mimicked the moves previously accomplished only with dumbbells and barbells. His invention was truly revolutionary. Finally, women and men who felt embarrassed or intimidated by a typical weight room could get the benefits of strength training without the attitude.

If you joined a gym back then you probably remember going from machine to machine in a circuit that comprised at least one exercise for every part of the body. Many fitness facilities today offer similar equipment where you can enjoy a good muscle workout without having to worry about form or think too much about function. For general muscle strength and fitness, this is fine. But, if you have been doing the same routine on these machines since the Carter administration, it is time to learn some new tricks.

If you like the machines and workout at a time of day when you can move quickly and easily from one machine to another without incurring the wrath of other gym members, try these ideas to spice things up:

1. **STACK YOUR EXERCISES.** This means performing a set on one machine and then going immediately to another machine and performing a set on it--without resting. You can stack between two different machines in the same muscle group (two different chest machines for example) or stack what are called “antagonistic muscle groups” (chest/back, biceps/triceps, quadriceps/hamstrings).
2. **VARY YOUR REPETITIONS.** One week perform 12-15 repetitions on all the machines; the next week, bump up the weight a little and perform 10-12 repetitions; the following week, bump up the weight again to where you can only do 6-8 repetitions. Cycle this workout schedule for 6 to 9 weeks. The idea is to be fatigued with each set regardless of the number of repetitions—the weights selected should not be too easy or so heavy you can’t finish a set.
3. **PYRAMID THE SETS.** On each machine, start with the heaviest weight you can competently handle for 10-12 repetitions. As soon as you tire, lighten the weight one or two plates and immediately perform another set. Keep doing this until you get to the lightest point of the weight stack. By the time you get to this point, you will be exhausted!
4. **SLOW THE PACE.** Perform each repetition to a count of ten for each phase (both flex and extension) for a total of 10 repetitions. Select weights that are much lighter than normal because this is grueling!

5. **ADD SOME PULSING.** Add some short half-repetitions to each set, at the beginning, middle or end. These quick half-repetitions (called “pulses”) add intensity to the set.

When all else fails, try something totally new. If you have never ventured into the realm of free weights, give them a try. But be sure to hire a trainer for a few sessions in order to learn proper form.

LINDA BUCH - BODY LANGUAGE (tm)-May 1, 2006

KNEE PAIN

“I get knee pain while walking due to loss of cartilage. I am 78 years old and otherwise in good health. Can you suggest any exercises to relieve knee pain?” Mayura, Denver, CO

Knees are, without a doubt, one of the most contentious joints in the human body. Since the knee involves so many moving parts and support tissues, an inflamed or injured knee can present chronic pain and instability. Learning ways to cope and function are crucial.

Medical professionals generally focus on two things regarding knee pain: weight loss and muscle strengthening in the legs. A modest weight loss can reduce knee pain by as much as 50% AND, strengthening the muscles will give needed support to this multi-tasking joint.

If you haven't already done so, get a proper diagnosis from an orthopedic specialist. There may be some simple treatment options available to you. If your body weight is appropriate for your age and height then strengthening the leg muscles, especially around the knee, is in order.

First, be sure you are wearing shoes that are fitted to your particular needs, designed for walking, and in good condition. Regular walkers should only use a pair of shoes for three or four months then, because the support breaks down, replace them.

If you have access to a gym or recreation center, ask the fitness trainer on duty to show you how to use the machines designed for hamstrings (the muscles behind the thigh). Hamstrings are often part of the knee pain problem because they do not get as much attention as the quadriceps (front of the thigh).

Exercises for leg strengthening include lunges (step backwards instead of forwards for better protection of the knee), leg presses, and squats. These exercises, when executed with free weights or other gym equipment designed for the purpose, present great benefits to the leg muscles. If you have a Swiss Ball (order one from www.FitBall.com), you can perform hamstring curls and squats safely in your home. Space does not permit a detailed explanation on proper form so a visit with a trainer is time and money well spent.

Another great tool for relieving knee pain when walking is to use HIKING POLES (also called trekking poles or walking sticks). Using specially designed poles reduces the strain on knee, ankle, and hip joints, especially downhill. Hiking poles spread the benefits of walking by bringing the muscles of the upper body into play. This not only improves strength, muscle tone, posture, and endurance, but also, according to Tom Rutlin of Exerstrider, USA, “...can increase caloric expenditure by as much as 36%.” According to Jayah Faye Paley, Pole Trekking instructor and fitness trainer, “People with knee injuries, arthritis, MS, Parkinson's, or who have had hip replacements have found that using poles can break through some major hurdles and help get them exercising again.”

If walking is still painful for you, try adding bicycling and swimming to your exercise routine. Both are not only great exercise but also gentle on the knees. In fact, most orthopedic surgeons recommend bicycling to knee patients as their primary form of exercise.

For more information or to purchase an instructional DVD, poles, and other gear visit: www.AdventureBuddies.net. Another good site for information and equipment is: www.exerstrider.com.

LINDA BUCH - BODY LANGUAGE (tm)-April 3, 2006

MORE HYPERGLYCEMIA AND WEIGHT LIFTING

I am a 62 year-old woman, 5'5", 127-pounds with high blood sugar. I've lost 10-pounds since being on a diet but I want to lose two more pounds. I work out on a treadmill 4-5 days a week and do some stretching. I've just started with weights but am not sure what to do." Dee Eva, Redwood City, CA

Anytime 'hyperglycemia' is mentioned in reference books, "diabetes" is usually in the same sentence. If you aren't already under the care of a medical specialist, seek treatment at once. Other possible reasons for hyperglycemia are "metabolic syndrome" (three or more of any of these: abdominal obesity, high triglycerides, low HDL cholesterol, high blood pressure, a fasting blood sugar over 110mg/dl, will yield this diagnosis), "Cushing's syndrome" (a disorder of the adrenal glands, which sit on top of the kidneys), "pheochromocytoma" (a rare tumor on the adrenal glands), or overdosing on vitamin B3 (niacin). High blood sugar should have medical oversight and guidance from a Registered Dietitian.

It is very important to check your blood sugar before doing any exercise. According to Russell D. White, MD, ("THE PHYSICIAN AND SPORTSMEDICINE," Vol. 4, #27, April 1999), "Check your blood sugar levels before and after workouts and every 20 to 30 minutes during prolonged exercise. (Many activities burn 500 to 600 calories an hour!) If your blood sugar is under 100 mg/dL, take a snack containing 15 to 30 grams of carbohydrate before you exercise. If your blood sugar is excessive (over 250 mg/dL for people with type 2 diabetes; over 200 mg/dL for those with type 1), postpone exercise until you bring it down."

Postponing exercise if blood sugar is high is crucial because, during exercise, the body can get desperate for a source of fuel (the body wants to use glucose). Without insulin, that glucose stays stuck in the blood and isn't available to the cells, so the body uses fat instead. When the body uses fat, chemicals called "ketones" are produced. These ketones get into the blood and urine and can make you very sick.

Weight lifting would be an excellent addition to your workout schedule because resistance training will increase muscle mass and lower your basic insulin levels. If you have no experience with resistance training, I strongly recommend either taking a class or contacting the manager of your exercise facility to see about getting some instruction on the equipment at hand.

The easiest way to begin is to use the machines that are organized in a circuit for easy access and efficiency. Begin with light resistance and at least 15 repetitions until your strength improves. As you get stronger, slowly increase the resistance. Varying the workout week-to-week between heavier weight and fewer repetitions, with lighter weight and more repetitions, is a good way to improve strength and keep your workout from getting stale. When you are ready to try free weights, hire a personal trainer for a few sessions.

As for losing “two more pounds,” fitness, strength, and stable blood sugar are vastly more important. Also, when you start to build muscle your weight could actually increase which, in that case, is a good thing.

LINDA BUCH - BODY LANGUAGE (tm)-July 3, 2006

HAMSTRING EXERCISES HELP THE KNEES

"I am 68 years old with knee problems. I have followed your advice to bicycle a lot. Could you elaborate on exercises for the hamstrings?" Aldo Lombardo, Littleton, CO

The hamstrings are the muscles located on the back of the thigh between the knee and the butt. They are part of the system that allows the hip joints to extend (standing up) and the knee joints to flex (walking, running, and cycling). This muscle coordinates with the butt muscles (gluteus maximus, medius and minimus) and the lower back (lumbar spine) to allow most of our daily functional movements.

You can perform a simple exercise," the Bridge," at home without equipment:

1. Lie on your back on a firm surface with knees bent and both feet flat and arms at your side, palms of the hand down.
2. Tighten your abdominal and butt muscles as you press your feet into the floor, squeezing your butt muscles.
3. Raise your butt and lower back off the floor about three inches until the knees, hips, and chest are all in line. Hold for a count of five. Repeat 10 times. Work up to a count of ten seconds x ten repetitions.

For the best results, however, I highly recommend the purchase of a Swiss Ball. There are many companies out there who sell this item but for safety and durability, I recommend purchasing a ball that is "burst resistant." Ball Dynamics (<http://www.ballodynamics.com/>, 1-800-752-2255) sells the original burst resistant "Fit Ball," which was introduced to the USA in the 1960's. They also provide instructional materials for yoga and Pilates, activities that would also be very helpful to you. Another good resource for equipment and instruction is Perform Better, <http://www.performbetter.com/>, 1-888-556-7464.

The "Sports Injury Bulletin" (<http://www.sportsinjurybulletin.com/>) recommends the following Swiss ball exercises. Pictures of these can be found on the instructions enclosed with your Fit Ball:

1. The hamstring bridge. Lie on your back, arms out to the side. Your heels are up on the ball. Place your heels about hip width apart. Push your heels down into the ball and raise your hips until they are as high as they can go while keeping the shoulders on the floor. Lower your hips until they are just off the floor and repeat.
2. The leg curl. The start position is the high hip position of the bridge exercise. Keeping your hips high, roll the ball towards you, bending your knees. Then, roll the ball back out, extending the knees. Perform this leg curl movement with the hips high throughout.

3. The hip lift. Lie on your back, arms out to the side. The soles of your feet are on the ball and your knees are slightly bent. Feet should be hip width apart. Push down into the ball and lift your hips as in exercise one. Lower down until your hips are just off the floor and repeat.

Exercising with an unstable device like the Swiss Ball will force your core muscles (back, abdominals, gluteus) to work together, thus benefiting strength and stability for the lower back, hips and hamstrings.

It would also be very beneficial for you to schedule an appointment with a Physical Therapist or Physiatrist (a medical doctor who specializes in physiotherapy) for a more in-depth diagnosis of your hamstrings and knees.

LINDA BUCH - BODY LANGUAGE (tm)-June 5, 2006

POST-EXERCISE CALORIC BURN

“I know that cardio interval training burns calories and fat after the workout but can you give me any other cardio and strength-conditioning exercises that do the same?” Robin Troublefield, Denver, CO

It is a common misconception that only certain exercises, routines, or pieces of equipment create monstrous post-exercise “after-burn” that sizzles fat off the body. Regardless of whether it is aerobic (running) or anaerobic (strength training), glycogen stores in the muscles need to be replenished and cells need to be repaired. All of this takes energy (calories) and, depending on the activity can take a few minutes (following a short walk) or a few days (following a marathon).

Any exercise that elevates the heart rate and/or increases muscle mass will continue to utilize energy after the exercise session is completed. Since the key to reducing body fat is to create a calorie deficit (expend more than you consume) the formula is very simple: expend more than you consume.

It is well known that strenuous aerobic exercise (running, cycling, swimming) can produce hours of post-exercise caloric expenditure. What was unknown was if weightlifting produced similar results. Research carried out at Colorado State University in 1994 (Gilette, Bullough & Melby, 1994. “Post-exercise Energy Expenditure in Response to Acute Aerobic or Resistive Exercise,” *International Journal of Sport Nutrition*, vol. 4, pp 347-360, 1994) on a group of students and adult health club members found that, indeed, it did.

One group engaged in a strength training session comprised of five sets of 10 different exercises for all body parts using weights that were 70% of each participants’ one-repetition maximum. The lifting session was 100 minutes long and about 600 calories were burned on average. This was compared to another group who cycled at 65% of each participant’s maximum heart rate. It took them an average of 64 minutes to equal the same 600 calories.

In the five hours after these sessions the researchers were surprised to note that the post-exercise burn among the weightlifters was slightly higher than the bicyclers! Please note, however, that it took the weight lifters 100 minutes of very strenuous lifting to equal nearly the same thing that the bicyclers achieved in about 60 minutes; and, the bicyclers were cruising in comparison.

Dr. Christopher Melby, head of the Department of Food Science and Human Nutrition at the University of Colorado in Fort Collins, Colorado, and colleague, Kristin Osterberg, completed a second study with college women in 2000 (Osterberg, & Melby, 2000, “Effect of acute resistance exercise on post-exercise oxygen consumption and resting metabolic rate in young women,” *International Journal of Sport Nutrition and Exercise Metabolism*, 10, 71-81).

They found that by “increasing the density” of the workout by performing “supersets,” (two different exercises in rapid succession without pausing for rest), metabolic rate was boosted which, in turn, burns more calories and fat. By choosing exercises for opposing muscle groups (chest/back, hamstrings/quadriceps, biceps/triceps, shoulders/abdominals) strength can be increased more quickly and premature muscle fatigue can be avoided.

Technique and form are crucial so a session or two with a certified trainer is highly recommended. Also, be advised that the subjects of these studies were in their late teens and early 20’s and in decent physical condition. Too much intensity too quickly can lead to injury, so begin a program like this in measured amounts.

LINDA BUCH - BODY LANGUAGE (tm)-March 6, 2006
MORNING EXERCISE VS MORNING EATING

"I am a morning exerciser but not a morning eater. It is the last thing I want to do when I wake up. I have heard if I skip breakfast, I am doing my metabolism a disservice. Since I need to lose 10 pounds, I don't want to sabotage my workouts." Ann Miller, Lancaster, PA

For many people the thought of food first thing in the morning is repugnant. Others may be discouraged from eating because they are exercising on the theory that, if there is no initial pre-exercise fuel provided, the body will be forced to utilize fat. Both present their share of problems when exercising.

If you stop eating at about 7:00 PM and workout at 6:00 AM, you have been fasting for eleven hours. This means your blood glucose (the body's preferred fuel) is already very low; add exercise and this level will go even lower. Since every cell depends on glucose for energy, exercising on an empty tank could present some problems with general performance.

The downside, therefore, is tiring more quickly, working out at a lower level than you might be capable, becoming dizzy, getting headaches, and feeling nauseous. The upside to giving your body a little pre-exercise fuel is better strength and a quicker post-exercise recovery, and more enjoyable, intense, and satisfying workouts.

Quite simply, after hours of fasting the body needs to top off the glycogen stores and have a little something to wake up the metabolism. Pre-exercise fueling does not have to mean a full English breakfast. A small, 100-200 calorie snack high in carbohydrate is adequate and can be consumed in the car on the way to the gym or pool. Consider the following options:

- A banana, orange, handful of raisins or berries,
- A granola bar,
- Eight to 10 ounces of a sports drink,
- A fruit smoothie made with yogurt, fruit and honey (commercial smoothies are now available in the dairy case),
- A bowl of oatmeal (instant is better than nothing) or muesli,
- A piece of whole-grain bread with a "schmeer" of cream cheese or peanut butter.

After your workout, a second larger breakfast of more substance is in order, particularly one that includes some protein. Egg, lean meat, cottage cheese, a piece of cheese, dried fruit, nuts, and yogurt are all good post-exercise foods which will restore your depleted resources. Also, be sure you are properly hydrated before and after your workout.

There are exercise proponents who believe that working out first thing in the morning on an empty stomach increases the utilization of fat stores. This may work, but only for people who can maintain a high intensity effort for at least twenty minutes of their exercise session. If you have to cut the workout short or cut back on the intensity due to

hunger, lack of energy, or sudden exhaustion very little “fat burning” will occur. If this is your experience, a little pre-exercise fuel will go a long way toward your weight loss goals.

Since eating food before exercise is a new experience for you, be sure to start VERY slowly with small amounts to allow your body to adjust to the new regimen.

LINDA BUCH - BODY LANGUAGE (tm)- August 7,2006

SENIORS AND EXERCISE: HOW TO START (Part 1)

“Since the body recovers slower as we age, diet and exercise are extremely important. Perhaps a series on this subject is in order?” Adrienne Chen, Bay Area, CA

Too many older adults feel that if they aren't already “in shape” at age 55, then why bother? Because exercise IS the Fountain of Youth. According to New York Times “Personal Health” columnist, Jane Brody, “Regular exercise can take 20 years off your age.” In fact, just 30 minutes a day can help maintain, and in some cases even *regain*, physical independence, improve mood, and sharpen mental agility.

Lots of changes happen to us as we age. Our metabolism slows, sense of touch and pain sensitivity reduces, muscle strength and cardiovascular endurance decreases, connective tissue becomes more vulnerable to injury, osteoporosis risks increase, and balance and stability often becomes impaired. But no whining! As Betty Davis put it, “Old age ain't no place for sissys.”

It is never too late to start BUT it is a good idea to begin any new thing slowly. The slower metabolism, reduced pain sensitivity, and all the other little snarls mentioned above also mean longer recovery time after exercise and the need to treat the poor old “bod” a bit more gently.

As comedienne, Ellen DeGeneres, once quipped, “My Grandmother started walking five miles a day when she turned 65. She's 97 now and we don't know where the hell she is.” Walking may be the easiest way to begin exercising but what is most important is to start by doing something *you like or would like to learn*.

In order to exercise safely, here are some tips from The American Academy of Orthopedic Surgeons:

1. Warm up before doing any exercise. Start with something slow and rhythmic like walking.
2. Increase activity over time, beginning with short sessions. Don't try too much too fast.
3. Do not wait until you are thirsty to drink water. Stay hydrated by drinking regular sips of water throughout your exercising.
4. Wear the right kind of athletic shoes with good support and comfort.
5. Exercise with a friend who can help you keep your resolve.
6. Be alert to air quality, both indoors and out. Exercise outdoors when weather permits and when indoors in public facilities, avoid crowds during cold and flu season.

7. Do not exercise when you have a cough, fever, cold, or flu but resume activities as soon as you can.
8. When resuming exercise after time off, start at the beginning and rebuild; do not start where you left off.
9. Look into Tai Chi, Pilates and Yoga. All are good for breathing, balance, flexibility, and strength. Seniors who practice Tai Chi, for example, had fewer falls and less fear of falling.

While cardiovascular fitness is improved through endurance exercises like walking, running, and dancing, muscle tissue can still be lost unless some strength training is brought into the mix. Studies conducted by Wayne Westcott, PhD, Fitness Research Director at the South Shore YMCA in Quincy, MA, note an increase of as much as three pounds of muscle over an eight week program of basic strength training.

Resources:

On the web:

<http://seniorliving.about.com/>

www.AARP.org (American Association for Retired People)

<http://www.aoa.gov/> (The US Administration on Aging)

Books:

“Strength Training Past 50,” Wayne L. Westcott, Thomas R. Baechle, (Human Kinetics Publishers, 1997, \$17.95).

“Building Strength & Stamina,” Wayne L. Westcott (Human Kinetics, 2003, \$19.95).

LINDA BUCH - BODY LANGUAGE (tm)-May 8, 2006

VO2 Max

“My niece, a fitness trainer in CA, told me to have the VO2 Max test done so that when I work out I am working at the level that gives me the most benefit for fat burning. She also suggested a couple of visits with a nutritionist.” Jane Riegel, Highlands Ranch, CO

“VO2 max” is defined by author and physiology researcher, Stephen Seiler, Ph.D., as “the maximum volume of oxygen that a body can consume during intense, whole-body exercise while breathing air at sea level.” The data is usually expressed as milliliters (of oxygen) per minute per kilogram of body weight (ml/min/kg).

When you exercise aerobically (running, cycling, cross-country skiing, rowing), your body’s ability to take in and utilize oxygen, both by the cardiovascular system and the muscles, will determine how long you will be able maintain the exercise before becoming exhausted. Oxygen is what helps the body convert the food you eat (fuel) to a usable chemical called ATP (Adenosine TriPhosphate), which is necessary for the body’s cells to do their jobs. The more efficient the system, the better the endurance. Muscles at rest need very little oxygen but muscles that are intensely contracting have a very high demand. The VO2 Max test will measure how efficient your cardiovascular system and skeletal muscles are when it comes to extracting and utilizing oxygen during activity.

Other factors that determine VO2 Max, as well as your ability to improve it, are genetics, gender, and age. Alas, genetics will provide an upper limit beyond which you will not pass, which is why some people can run for hours and others are only good for 30 minutes, regardless of how hard they try. Most healthy men who workout moderately will have a VO2 Max reading of about 40 ml/min/kg. After some serious endurance training for a few years, this may climb to about 60 ml/min/kg. (Lance Armstrong’s VO2 Max is 85!) Adult females will have readings that are about 20% less than that of adult males.

John Macknight, Ph.D., Sports Medicine, University of Virginia, points out, “VO2 Max will tend to decline at a steady rate after age 20, but maintenance of an active lifestyle, and particularly training-level activity, can greatly delay this inevitable process.” He also notes that VO2 Max can be increased by decreasing body fat, as long as the lean muscle mass is maintained.

Getting tested will involve finding a sports lab (or perhaps a cardiologist) with the proper equipment. Be aware that this test can take up a lot of time and money. The results will tell you how much oxygen your body consumes and can measure your maximum heart rate as well.

Improving your VO2 Max is accomplished via a training program of suitable frequency, intensity and duration of your chosen endurance sport. Engaging a coach and focusing your time and efforts towards a rigorous training schedule is the best way to achieve this. Again, as we get older our bodies change. Risking injury by training too intensely is not worth the slight increase in VO2 Max numbers.

As for consulting a “nutritionist,” be sure to choose a registered dietitian. They are licensed to dispense diet information while someone who just calls themselves a “nutritionist” may not be.

LINDA BUCH - BODY LANGUAGE (tm)-January 9, 2006
STRENGTH EXERCISE OPTIONS

“My cardiovascular workout consists of swimming three times a week and intermittent walking. Can “floor exercises” such as pushups, sit-ups, leg lifts, etc. substitute for weight training? These are convenient to do, especially when traveling.” A Reader in Lancaster, PA

You are to be commended for keeping up your exercising even when you are away from your home facilities. Whether or not you can get by with just floor exercises (a.k.a “resistance training”), and completely avoid “strength training” (which presumes the use of weights and machines), depends on both personal preference and general health, particularly bone health.

Many well-respected fitness promoters, athletes and organizations-- such as Charles Atlas, Herschel Walker, and the Royal Canadian Air Force—all attribute their physical fitness to rigorous calisthenics/resistance training rather than weights and other equipment. Exercises that require the pushing and pulling of your own body weight are indeed rigorous enough to build strength, endurance, and muscle.

Push-ups, pull-ups, and dips are the “trifecta” of upper body resistance training. But what about the legs, gluteus, and abdominal muscles? The abdominal crunch, or “sit-up” is the most well known but try other exercises, such as the “plank” in order to work many more of the core muscles *simultaneously* rather than independently. (The core muscles are the 29 muscles of the trunk and pelvis, including the lower back, spine, abdominal, and gluteus.) By holding your body perfectly parallel to the floor on your forearms, palms of the hands, and toes you will feel every muscle in the abdominal, back and hip areas working together to hold you steady. (Start by holding this position for 15-20 seconds and work your way up to a couple of minutes.)

Other examples of productive resistance training exercises are leg raises, leg kicks (forward, back, and to the side) from a standing or reclining position, hip lifts (also called “the bridge”) and squats (sitting and standing repeatedly from a chair). Stationery running and jumping jacks are good leg as well as cardiovascular exercises.

The question as to whether or not these can take the place of weight lifting depends a lot on your bone history. Yes, even men get osteoporosis and weight lifting is one of the best ways to maintain bone health. If you haven’t already done so, ask your physician about a bone density test and if this is advised, get yours checked. If your bones are thinning, then a program of weight lifting, particularly those exercises that stress the bones of the back and hips, is in your future.

A cross-training program where many forms of exercise are enjoyed throughout the week gives the greatest benefit. This means incorporating aerobic, anaerobic, muscle strength, muscle endurance and flexibility into the whole picture. Swimming and walking are your aerobic components and resistance training is your muscle endurance. What might be missing are *anaerobic* muscle activities that involve the intense, explosive component of

sprinting (such as in the pool or when walking). Flexibility is also a necessary aspect of good fitness and can be improved with regular stretching and/or yoga.

A good resource for resistance training without equipment (with plenty of pictures for easy understanding) is **THE COMMERCIAL BREAK WORKOUT** by Linda J. Buch and Seth Anne Snider-Copley (Random House, \$12.95).

LINDA BUCH - BODY LANGUAGE (tm)-April 10, 2006

COMBATING FATIGUE AND CHRONIC ILLNESS

“I am a 38-year old brain tumor survivor with two young kids and take seizure and thyroid medication. Combating fatigue is a daily struggle. Are there any fatigue combating strategies that would benefit me and others in my situation?” Liz Holzemer, Highlands Ranch, CO

The “trifecta” for a healthy life is diet, exercise, and sleep. Your battling and surviving a serious health challenge, while also raising kids, handling a career, and dealing with medications, is the Triple Crown in balancing acts.

The National Center on Physical Activity and Disability Health Promotion (NCPAD, www.ncpad.org) has some excellent recommendations in all three of these areas. It is a fact that some foods will provide a good source of sustained energy while others can knock you flat. In the diet department the NCPAD recommend all the “usual suspects” for good health: breakfast every morning, fresh fruits and vegetables, whole grains, lean meats and fish, beans, nuts and seeds, peanut butter, low-fat dairy, a multi vitamin, and six to eight glasses of water a day. Try to avoid fried and high fat foods processed foods (candy, chips, etc.), caffeine, alcohol, and tobacco. Eating five-six small meals throughout the day will keep your energy at a more even keel than the energy depleting fullness that is often the result of three large meals.

Exercise can both decrease fatigue and improve the ability to sleep soundly; but you should start with light exercise and increase in small steps. The “HealthBanks Patient Education Network” (www.healthbanks.com) recommends something called “graded exercise” for those who are chronically fatigued. This means starting slowly and increasing activity in measured, small steps. They recommend making a specific plan for exercise each day and then sticking to that plan even on those days when you feel fabulous and want to do more. Their example is to start by walking for five minutes every other day for two weeks. Then add another two to five minutes for another two weeks. The reason to stick with a plan like this (even on days when feeling great) is because too much exercise too soon can cause an extended relapse into exhaustion. Keep a calendar or log book so you can stay on track.

Since you have small children, these exercise suggestions may be either impossible or unnecessary. Dealing with small children is its own exercise regimen! Instead, pick up some basic or beginner tapes/DVD’s on yoga and/or mat Pilates from the library or bookstore and treat yourself to a few minutes of stretching, light strengthening, and gentle core exercises when the kids are sleeping.

Paradoxically, quality sleep can be a problem for those who constantly combat fatigue. Some tips for good sleep from the NCPAD are to keep a regular sleep schedule, wake up at the same time each day (avoid the temptation to “sleep in”), use earplugs or ‘white noise’ in the bed room to drown out exterior disturbances (such as a small fan or a special machine designed for that purpose), keep the temperature in the room even, and eat a

small snack before bedtime. Limiting caffeinated drinks after two o'clock in the afternoon will also help.

LINDA BUCH - BODY LANGUAGE (tm)-July 10, 2006

Gluten Sensitivity and Exercise

“About a week ago I went on a gluten-free diet to see if it might be contributing to some of my health concerns. Very quickly, my clothes started to fit better. Is there such a thing as ‘gluten sensitivity’ that bloats the body, making a sensitive person look and feel bulkier than they really are?” S.J. Curtis, Denver, CO

“Gluten” is a protein found in grains like wheat, barley, rye, spelt, triticale, kamut, and oats. These have all been cultivated, hybridized, and domesticated by humans for millennia from wild sources. Some people’s digestive systems react to gluten as if it were a foreign substance, creating problems in the body such as those you describe. This adverse reaction damages the mucosal surface of the small intestine and, thus, creates problems with the absorption of nutrients. Kenneth D. Fine, MD, Medical Director and Director of Operations, EnteroLab Reference Laboratory (www.enterolab.com), points out that gluten sensitivity implies an immune reaction that is often genetic. In fact, gluten allergies can be present in as much as 20% of our population.

You mention other “health concerns.” A stool sample and blood work are recommended because of the possibility of your having a more severe form of sensitivity known as celiac disease, which affects as many as one in 133 people. Since you are already eliminating gluten from your diet, you should get tested sooner rather than later in order to get more reliable results. Celiac disease can also be part of the root cause of anemia, autoimmune disorders (lupus, Type 1 diabetes), colitis, reflux disease, osteoporosis, gastrointestinal cancers, and a host of other problems.

If there had been damage to your small intestine, complete healing is possible but it could take as long as six months. It may take a while to adjust to this new way of eating so become adept at reading labels and planning ahead. Thomas Brunoski, MD, a Westport, Connecticut specialist in food and environmental allergies, suggests grains you can eat are brown rice, corn, wild rice, buckwheat (kasha), amaranth, millet and quinoa. Detailed gluten-free diet information is available from the American Dietetic Association (800/877-1600, www.AmericanDieteticAssociation.Org). To make the transition easier, work with a Registered Dietitian who is knowledgeable and experienced in dealing with gluten sensitivity. Also, there are plenty of gluten-free cookbooks on the market (too numerous to mention here) so a trip to the bookstore or Amazon.com may also be in order.

Since the small intestine is part of the system for calcium absorption, osteoporosis can become a complication if celiac disease goes untreated. This will mean paying particular attention to those foods you can eat that are high in calcium and vitamin D. This will include dark green leafy vegetables and calcium fortified products such as orange juice. Low-fat dairy products are also good sources of calcium but some people with celiac disease report problems with lactose, so be vigilant with how these products affect you.

If you discover that you have had some bone loss due to gluten sensitivity or celiac disease, you should perform weight-bearing exercises (where you are forced to work against gravity). Walking, dancing, strength training, step-aerobics, stair climbing, and other cardiovascular activities that involve some degree of impact should all be considered as a frequent part of your exercise routine.

LINDA BUCH - BODY LANGUAGE (tm)- November 20,2006
WEIGHT BELTS-YES OR NO?

“I have been a weight lifter for many years. Weight belts were always used, especially when doing squats. Now I am being told that weight belts are not only passé but also are also unhealthy. Is this true? Why?” Steve Smith, Denver, CO

Weightlifters and bodybuilders, when performing heavy vertical lifts or squats, often use weight belts. In some weight lifting arenas the weight belt went from being an occasional gym accoutrement to a full time accessory. In some cases, people even wear weight belts when performing bench presses!

The fitness professionals at www.Lifescrpt.com weighed in on the weight belt issue with an article, ‘Weight Belts Are For Sissies’ posted on March 21, 2006. They posit that, “While it may seem that wearing a weight belt to support your lower back when lifting heavy weights is a good idea, it’s really just a cop-out for a weak core.” Most fitness professionals and exercisers believe that continuous and chronic use of a weight lifting belt actually weakens the back and even leads to future injury.

Psychologically we feel we can lift heavier weight when we have what seems like “good support around the back and abdomen.” Physiologically, we are already provided with a natural weight belt in the form of abdominal and skeletal musculature. Constant use of a weight belt can shut this natural system down.

Muscles develop, strengthen and improve when they are challenged. A weight belt suppresses the muscle activity in the lower back, gluteus, and abdominal areas, thus keeping them weak while the rest of your muscles strengthen. In addition, a big, thick leather belt buckled around the core not only increases blood pressure but also interferes with the natural rotation and flexion of the lumbar spine. If these muscles are allowed to weaken, injury can occur even when performing simple daily tasks such as twisting, reaching, lifting, and bending. In more severe cases of weakened muscles, disc degeneration can be a result.

Paul Chek, founder of the C.H.E.K. (Corrective Holistic, Exercise, Kinesiology) Institute in San Diego, CA is a renowned expert in corrective and high-performance exercise and has written extensively on this subject. In a nutshell, Chek points out that there is some conflict in the health and scientific community regarding “soft lumbar support” (such as weight belts and the belts used by warehouse workers) for the lumbar region during lifting. “Even though there are studies demonstrating a supposed increase in performance while using weight belts, there are many more studies indicating weight belts are damaging, creating dysfunction in their users.” While the belt may allow you to lift heavier weight than you could without it, by doing so “the belt will likely serve to traumatize the spine due to increased levels of compression and torsion, increasing the potential for a serious injury.”

Weaning yourself off of a weight belt must be done slowly and carefully because, as Chek reminds, “The deep abdominal now has sensory motor amnesia.” He highly

recommends working with an exercise specialist trained to evaluate and stabilize the torso. It is very important to learn how to activate the muscles of the deep abdominal, gluteus, lower back and spine before going totally beltless when weight lifting.

RESOURCE INFORMATION:

Paul Chek is licensed as a Holistic Health Practitioner (California) and holds the following Certifications: Certified Neuromuscular Therapist, Clinical Exercise Specialist from the American Council on Exercise (ACE). You can read his detailed articles on weight belts at: www.chekinstitute.com.

LINDA BUCH - BODY LANGUAGE (tm)-October 10, 2006

"I need to do some strength training and am more familiar with machines. I know free weights are recommended as well. What is the difference, really?" Helen Ash, Landisville, PA

FREE WEIGHTS VERSUS MACHINES, Part one

In Ancient Greece, the "gymnasium" was where men trained (naked) for various Greek games and sport. The Greeks admired a well-built physique and, therefore, developed all sorts of ways to create one. They understood the importance of balance between body parts, employed weight lifting, utilized trainers and dietitians, had flute players playing to inspire rhythmic movement, and debated endlessly about the best way to achieve athletic purity.

And the debate seems to go on even to today. Big gyms, fitness franchises, and YMCA's invest millions of dollars into both high-tech and low-tech equipment designed to attract and entertain members. People new to the fitness facility experience can be overwhelmed by the cacophony of clattering machines and weights, the blaring music of an aerobics class, and the oofing and grunting of people exercising.

In 1970, Arthur Jones invented a machine that provided variable, balanced resistance with system of pulleys and cams known today as the "Nautilus System." Heretofore, most women and many men were too intimidated to venture into a weight lifting facility. With the advent of Nautilus machines, strength training for the rest of us began on a very large scale.

Novice exercisers, many seniors, and most recreational athletes can achieve good, basic strengthening of all the muscle groups via machines. Modern equipment *generally* accommodates body size and lifting ability with adjustable seats, pads and selectorized, quick-adjusting weight stacks. Machines isolate each muscle group- such as chest, back, shoulders, biceps, triceps quadriceps and hamstrings- so that the exerciser can focus on these areas individually. This is also helpful for athletes who need to rehabilitate certain injured areas because movements can be specific and controlled.

Machines are good because:

1. They ensure correct movements through the proper range of motion.
2. You can workout alone without a spotter to assist the lift or watch your form.
3. They are quicker to use because you can just move from one to the other with an occasional change of the weight, and an adjustment of the seats and/or pads.
4. Some machines are more efficient in targeting specific muscle or muscle groups. For example, it is much easier to slide into a "hamstring curl machine" than it is to exercise hamstrings with a barbell or dumbbells.

5. If you have been away from strength training exercise for a few months, or are just beginning, machines are a great way to get into a program. You can take a few weeks or months strengthening and building muscle without becoming discouraged or injuring yourself by overstressing the joints or muscles.

..AND THEN THERE ARE THE DISADVANTAGES

1. For people who want to exercise at home or for small facilities on a tight budget, machines are expensive and have lots of maintenance responsibilities.
2. They are bulky and have a large “footprint” in a fitness facility or home.
3. Machines designed for fitness facilities can only perform one function on a specific plane.
4. If you are taller or shorter than what a manufacturer deems “average” the machine will not fit you very well.
5. Machines help with the lifting because of the pulleys, cams and lever systems employed to get you through the “stick” points, thus limiting the areas of the body actually strengthened.

Next week: The advantages and disadvantages (yes, there are some) of free weights.

LINDA BUCH - BODY LANGUAGE (tm)-December 11,2006

HOW MUCH RESISTANCE TRAINING FOR SENIORS?

“I am 66-years-old, six feet tall, 165 pounds and in good shape. I bike and hike regularly. I am interested in building muscle. What sort of routine should I do? Ed Schoenberger, Lititz, PA

The extent of physical changes as we age is a huge factor in the quality of the life we get to live. Typically, older adults lose muscle mass, strength, power, agility, and balancing skills while at the same time gaining body fat. This can result in falls, fractures, limitations on independence, heart disease, stroke, diabetes, and other disabilities and disorders.

Resistance training to the rescue! According to exercise scientists, Byung-Kon Yoon, PhD and Len Kravitz, PhD at the University of New Mexico, “There is accumulating scientific evidence from studies focused on middle-aged and mature populations that consistent resistance training will improve functional abilities, prevent osteoporosis, slow sarcopenia (age-related loss of muscle mass, strength and function) and help prevent falls, fractures and disabilities.”

What exactly is entailed in such a program? What sort of exercises? How often? How much weight? Anyone who has gone to a fitness center for the first time can be easily overwhelmed by the options. Rubber tubes and bands, machines, and free weights are the usual choices. Most fitness protocols suggest performing exercises for all of the muscle groups (chest, back, shoulders, arms, abdominals, butt, and legs), and most program designs suggest that the exerciser complete one to three sets and eight to 15 repetitions per set of each exercise.

For older adults beginning a program, muscle soreness and the time required performing all of the exercises could lead to reduced participation. Since compliance and consistency are keys to positive change, Yoon and Kravitz researched what sort of program would be both productive and efficient. They discovered that performing ONE set of seven different exercises was remarkably effective. Their research group (32 sedentary men and women aged 65-78) worked out twice a week for 20 weeks. One group performed one set of the exercises; the other group performed three sets. After the 20 weeks, according to Yoon and Kravitz, “Both groups showed significant and very meaningful strength improvements in all seven exercises.” In addition, functional ability (standing up from sitting in a chair, climbing stairs, getting up off the floor, and walking forwards, backwards, and distances) showed “significant improvements” as well.

The basic exercises used in this trial were chest press, seated row, triceps extension, biceps curl, leg press, leg curl, and leg extension. The weight selected for each person was the maximum they could lift for eight repetitions. While the group that performed three sets did show greater improvement in some areas, the upshot is that ONE set of a moderately heavy weight made a real difference in the subjects’ lives.

This means that exercising all of your muscle groups twice a week with as much resistance as you can lift for eight repetitions is the minimum necessary to see benefits. Pushing yourself to do more, if you are so inclined, will yield greater results.

The easiest way to get started is with resistance bands. Most fitness centers have these on hand or they can be purchased inexpensively from sporting goods stores. The next step would be to learn how to use the weight lifting machines and/or free weights. Proper form is extremely important so do not hesitate to take advantage of instruction before beginning any strength program.

LINDA BUCH - BODY LANGUAGE (tm)- September 11,2006
WALKING POLES

“Since I have ski poles, is it possible to use them as walking poles? Is the length of the pole important?” M. Boteler, San Mateo, CA

It is tempting to look at ski poles that you already own and decide that they will do just fine for use as walking poles. Just as you would not use a snowboard to go water skiing, it is not a good idea to just use ski poles for exercise walking. Walking poles telescope to various lengths to cope with changes in terrain and different personal heights and, some have built-in shock absorption. The tips have a small basket to keep you from sinking into the mud, a very sharp metal tip for good purchase on the trails, and they offer a special rubber tip for urban walking.

Plain walking uses mainly the legs. This leaves about 50% of the muscles of the upper body (abdominals and core, chest, back, shoulders and arms) completely underutilized. By adding poles to your hike or walk, you bring these muscles into play which, according to studies done at the University of Wisconsin by John Porcari, PhD, Professor of Exercise and Sports Science at the University of Wisconsin - La – Crosse, can increase caloric expenditure in most people by as much as 36%. The really great part about this is that you don't *perceive* that you are working any harder; therefore, you expend more energy in the same amount of time but do not feel depleted.

Walking with poles is also recommended because posture, balance, stability, control, and safety are improved; pain and injury-causing stresses to the hips, knees and back are reduced; and, people with macular degeneration, MS, Parkinson's disease, hip and knee replacements, neuropathy in the feet/lower legs, Alzheimer's, osteoporosis, etc. can get outdoors, exercise or just get around with greater confidence.

LEKI (www.LEKI.com, 1-800-255-9982) and Tom Rutlin's EXERSTRIDER (www.walkingpoles.com, 1-800-554-0989) are the two most popular brands of walking poles. Both offer a variety of styles and price ranges, anywhere from \$80-\$200. “This may sound like a lot,” explains Jayah Fay Paley, owner of Adventure Buddies (www.AdventureBuddies.net), “but when you compare it to the co-pay on knee surgery, it is really quite reasonable. Get good gear!”

Paley offers pole and trail tips, seminars, an award-winning DVD (available at REI for \$14.95: www.REI.com, 1-800-426-4840), and links to sites where poles, gloves, etc. can be purchased. Exerstrider offers poles, easy-to-understand 5-star rated video/DVD instruction, newsletters, and lots of testimonials.

Most poles come with hand straps. Paley recommends wearing bike gloves to keep the strap from chaffing and to optimize performance. Tom Rutlin of “Exerstrider” is in the minority with his strapless design, citing the American Academy of Orthopedic Surgeons who urged manufacturers to abandon this feature on ski poles for safety reasons. His

poles also have no shock absorbing springs because he feels this feature interferes with the body's natural proprioception (feedback to the brain on the body's position). Instead, his poles are constructed to absorb vibration without the more expensive addition of shock absorption.

All of the poles telescope for changes in terrain and for individual height and are easy to pack into a suitcase for travel. Whichever way you decide to go, you will be better off with gear designed specifically for the activity rather than a jury-rigged version from another sport.

LINDA BUCH - BODY LANGUAGE (tm)-June 12, 2006

STRENGTHENING THE BACK

“I had back surgery 15 months ago for a herniated disk (L-4-5). I also have scoliosis, a lot of arthritis, and more bulging disks. I exercise every day with the ball and walk on a treadmill. What can I do to strengthen my upper and lower back? NJ, Denver, CO

Back pain and difficulties such as yours usually require a three-pronged approach: strengthening exercises for the muscles; low impact aerobics for circulation and weight control; and range of motion exercises to maintain joint movement and relieve stiffness.

Before beginning any exercise, perform a stretching routine to help with pain. The University of Michigan Health System recommends the following but be sure to review them with your physical therapist to learn proper form and frequency:

-HAMSTRING stretches several times a day. These are VERY important for people with back issues! Get into a regular schedule with these so they become routine.

-CAT AND CAMEL. Get on hands and knees. Let the stomach sag and back curve for five seconds, then arch the back for five seconds.

-ARM/LEG RAISES. From this same position, tighten abdominal muscles to support the spine. Raise one arm and opposite leg for five seconds. Alternate with other arm and leg.

As for strengthening the muscles of the upper and lower back, Patty Pennell, MS, PT and owner of “Back To Motion” in Denver, CO suggests that you “participate in core stabilization exercises that emphasize the deep abdominal and deep back muscles.” Since you are already familiar with the Swiss ball these should be easy for you to learn. However, you really do need to learn the exercises from a physical therapist in order to perform them properly, so be sure to schedule an appointment before attempting anything on your own.

Yoga and Pilates can also be very helpful to you. Pennell recommends Ayangar Yoga, in particular, because the props employed are user-friendlier for low backs. As for Pilates, be very careful in the type of class you choose. “Ask if there is a physical therapist on staff or if the instructors have experience and training in doing rehabilitation for low back injuries,” says Pennell. As for upper back strengthening she says, “As long as you can keep your lower back in a safe and neutral position, wall pushups are a good place to start.”

Samuel Y. Chan, MD, with a specialty in Physiatry, recommends, “First, you should have a session with a PT to be sure you are strengthening the right muscles. The presence of chronic scoliosis may suggest some muscle imbalance. You will need a professional assessment to determine which muscles need to be re-educated.”

Posture is also an important aspect of your recovery. This means standing, sitting, and lifting with your head and spine in neutral alignment. As far as day-to-day is concerned, do not wear high-heeled shoes or sleep on your stomach because this will put too much pressure on the disks. “People with herniated disks should not sit or drive for more than 30 minutes at a time,” suggests Tammy White, MS, PT with McKesson Provider Technologies.

Walking swimming and bicycling (in a more upright position, not bent over) is also appropriate. A beginning water aerobics class is a good place to start and, any bicycles you use should permit you to sit up straight.

LINDA BUCH - BODY LANGUAGE (tm)-March 13, 2006

WALKING WITH WEIGHTS

“I saw an article in a magazine a few months ago advocating walking with weights. The weights in the picture were ten-pounds. What do you advise?” K. J., Oakland, CA

It seems to make sense. Walk with weights in your hands or on your ankles and kill two fat cells with one of huff and puff. Wouldn't the added weights make you work harder and help build muscles on the legs, butt, arms and shoulders?

Don't do it!! Rather than getting better results from your efforts you could end up with injuries to the shoulders, knees, ankles, wrists, hips, and back. In addition to all of the potential injuries, heaving weights around while walking can actually slow you down, which will not permit a good cardiovascular workout. One or two pound weights are dangerous enough—but ten pound weights? It is hard to walk across the room with that much weight, let alone around the block!

But the idea of creating more resistance, or making the walk more interesting by using tools and gadgets, is compelling. Some safer ideas are: the weighted vest; the PowerBelt®; and, walking poles.

A weighted vest can be purchased online and vary in price from \$60-\$80 dollars. Two good resources are www.PerformBetter.com and www.WalkVest.com. By carrying the weight around the torso, instead of the hands or ankles, joints and connective tissue are spared stress and trauma, your center of gravity remains unchanged, and you can still move your limbs properly.

Former Prevention Magazine Editor, Maggie Spilner, author of “Prevention's Complete Book of Walking” (Rodale Press, \$14.95) describes the PowerBelt® as “a portable fitness machine you wear around your waist.” The belt provides back support and the soft handles are attached to cords that are wound around spring-action discs of varying resistance. The handles are comfortable and move with your normal walking arm rhythm. If you get tired, just let the handles go and they return to their housing on the waistband. The added resistance to the upper body increases the caloric output without improperly stressing the joints. This item can be purchased from www.WalkersWarehouse.com or from www.PowerBelt.com at a cost of about \$89.95.

Walking poles are very popular in Europe. They are specially made to absorb the impact walking and have special rubber tips for traction and stability. Lawrence R. Terry, Ph.D. of the University of Wisconsin explains that regular walking does not engage much of the upper body (where 50-percent of the muscle mass is located), but that pole walking does, thus forcing us to expend more energy. If you get tired, just use them for support instead of propulsion. Also, if you have knee or hip pain, using poles can absorb some of the impact. Poles can cost from \$70-\$100 and can be ordered from www.WalkersWarehouse.com, www.exerstrider.com or by calling: 1/800/554/0989.

All of these items can probably be found at better prices in newspaper classifieds or on Ebay. But the cheapest way to boost your calorie expenditure is by increasing speed. Lean forward slightly, move the arms faster, and step up the pace. Simply doing that can just about double the calories burned and it's free!

LINDA BUCH - BODY LANGUAGE (tm)- August 14,2006

SENIORS AND NUTRITION (Part 2)

“Since the body recovers slower as we age, diet and exercise are extremely important. Perhaps a series on this subject is in order?” Adrienne Chen, Bay Area, CA

In our culture, it is hard to eat properly at any age. But when we get into our fifties and beyond, and we get our first invitation to join the AARP, a plethora of challenges seem to pounce at us. Less activity, slower metabolism, cooking for one, fixed (or reduced) income, diminished senses of smell and taste, side effects of medications, and changes in digestion all have their say in our special dietary needs as we age.

All this means we have to consider our calories more closely and monitor our nutritional threshold more efficiently. Look at how an older body digests food, for example. Saliva and stomach acid are necessary for the efficient and complete absorption of vitamins B-6, B-12, and folic acid; but, as we age, we generate less of these vital fluids. Since these B vitamins help maintain memory, mental alertness and good circulation, their reduced absorption has a direct affect on what we laughingly call “senioritis.”

Less activity is another aspect of growing older. This can mean brittle bones, an increase in body fat, and an increased likelihood of heart disease or stroke. Cutting back on calories, watching the salt intake, and eating more foods that are high in calcium, vitamin D, and fiber become critical. How do you do this?

The best thing to do is schedule a few visits with a Registered Dietitian who specializes in nutrition for seniors.

“Eating Well As We Grow Older: Guide to Senior Nutrition and Creative Meal Sharing” at www.helpguide.org (an excellent source for noncommercial information) suggests focusing on food that are nutrient-dense (low in fat and sodium, high in fiber and calcium), flavorful, easy to chew and swallow, simple to prepare, and appealing to the eye and palate. They suggest:

1. “Focus on ‘Good’ Carbohydrates.” Go for whole grain, not refined products.
2. “Raw equals Roughage!” Aim to eat at least one daily serving of fruits and vegetables raw. Why? Nutritional density, easy preparation, eliminates constipation.
3. “Steam vegetables to preserve nutrients.” Second choice is sautéing in olive oil.
4. “Go lean on Protein.” Go easy on red and highly salted meats and stick with fish, poultry, eggs, beans, peas, nuts and tofu.
5. “Bone up on Calcium.” Milk, cheese and yogurt retain their calcium content; cream cheese, cream, and butter, do not. Lactose-free products are available. Choose low fat or fat free when possible.

6. “Choose First-Rate Fats.” The healthiest fats come from nuts and seeds like olives, sunflowers, and avocado.

7. “Keep it Moist.” Drink plenty of water, of course, but also aim to eat food with a high water content such as melons, grapes, cucumbers, apples, onions, salad greens and soups.

As for senior athletes, the School of Public Health, University of Michigan, Ann Arbor (www.PubMed.gov), says, “For the older athlete who is competing in high-intensity endurance exercise, evidence for the usefulness of 4% to 10% carbohydrate-containing sports drinks exists. Little evidence supports the use of ergogenic aids, such as supplements and unusual food products. Resources and personalized guidance from a registered dietitian can be helpful for many older athletes.”

LINDA BUCH - BODY LANGUAGE (tm)-May 15, 2006
GETTING FIBER WITH SHAKES and FRESH VS FROZEN

“My vegetables tend to rot in the bin before I can get to them so my solution is to drink a morning shake instead, consisting of protein powder, kefir, fruit juice, chopped and frozen green leafy vegetables, fruit, and seeds. This way I get my veggies. Am I still getting the “intestinal scouring” fiber benefits when everything is pureed?” Max, Arvada, CO

You are a brave man to drink this first thing in the morning! According to Bonnie Jortberg, R.D., M.S. of the University of Colorado, “From a nutritional standpoint, this is not all that bad. He is probably getting all of the ‘intestinal scouring’ he needs, depending on how much he adds to the concoction.” Suzanne Farrell, R.D., adds: “He should be getting the fiber benefits as long as he is not juicing the fruits and veggies- where you destroy and omit the fiber complex. Pre-chopping and freezing is absolutely fine and the pre-prep is a key component of getting your veggies in.” In other words, pureeing food and drinking is OK as long as you drink all of the pulp and not just the juice.

For the curious, here is “Max’s Kitchen Sink Salad Shake” recipe:

Puree:

1/3 C. plain kefir

1/3 C. carrot juice

1/3 C. carrot juice

1/3 C. pomegranate juice

½ banana

1 handful EACH of frozen:

Swiss chard, collard greens, spinach, kale, red bell pepper

4 TBL Spirutein protein powder

1 TBL flax seed (finely ground)

1 TBL wheat germ

Since many people are concerned about fresh food spoiling and going to waste, another question might be, “Does it matter if the fruit or vegetables are fresh or frozen?” The answer is, “Either is fine as long as you eat lots of them.” Canned fruits and vegetables often contain added salt or sugar, which is definitely a negative, but can also contain nutrients that are equal to or better than fresh or frozen. Pat Kendall, Ph.D., R.D., Colorado State University Food Science and Human Nutrition Specialist, cites a recent study at the University of Illinois which found that “many of the canned fruits and vegetables contained as much or more of certain nutrients than their fresh and frozen counterparts.” This is because many canned, but especially frozen, foods are usually processed immediately, thus preserving the vitamins and minerals. This is especially true for food items high in vitamin C, which tends to breakdown quickly after being harvested.

Food grown locally, purchased, and eaten soon after harvest is ideal mainly because nutrients like potassium are drastically reduced in food when processed. But the message

from nutritionists is very clear: canned and frozen are good to have on hand. After all, there will be times when you just cannot get to the store, the food is out of season, or the fresh variety is too expensive.

Freezing your own fruits and vegetable is fine but certain suggestions from the frozen food industry are:

- The freezer should be at a constant 0 degrees F (-18C).
- Frozen vegetables should be steamed or microwaved to protect vitamin content.
- When boiling, the vegetables go directly to the boiling water and are served immediately.

BODY LANGUAGE by Linda Buch, January 16, 2006

DRINK WATER OR DIE!

“Why is WATER important? I find it hard to drink water all day and prefer other beverages like soft drinks and sport drinks.”

Joy Hammond, Pittsburgh, PA

It is easy to bypass water as a beverage of choice. Soft drinks, coffee, fruit juice, sport drinks, alcoholic beverages and milk are not only popular but also promoted by companies with large advertising budgets. In general, soft drinks and fruit juice have too much sugar, caffeine and alcohol are diuretics, and milk has a high concentration of solids in comparison to plain water. Sport drinks come in a distinct second place when compared to water but, if it will get you to drink fluids, go for it. As for making basic water more palatable, try adding lemons and/or limes, toss in some fresh mint leaves, or mix in a bit of orange juice.

Water makes up about 60% of your body weight and is 70% of your blood volume. It is to your body what oil is to your car. Water is part of the molecular structure of protein and glucose and it is an active participant in, and medium for, most of the chemical reactions in your body that work to keep you alive. This is why we can live for about a month without food, but only for *seven days without water*.

How do we tell if we are dehydrated? “Thirst” would seem to be the logical answer but thirst actually indicates that we are already dehydrated. Fortunately, it is usually an early sign. Other signs include fatigue, lightheadedness, loss of appetite, heat intolerance, and dark urine with a strong odor. This last one is usually the best indicator. If your urine is almost clear, we are properly hydrated. Yellow urine indicates the need for more water.

Physical activity demands that we keep a close eye on our fluid intake. Here are some guidelines from Susan Kleiner, PhD, RD:

Before exercise: drink one to two cups (8 to 16 ounces) of water (or sport drink) two hours before exercise to make sure you are well hydrated. Drink another 4 to 8 ounces immediately prior to exercise.

During exercise: drink 4 to 8 ounces every 20 minutes during exercise.

After exercise: replace any fluid you have lost by weighing yourself. Drink 16 ounces of fluid for every pound of body weight you have lost.

WATER IS AN IMPORTANT PART OF THE WEIGHT LOSS PROCESS, which will probably get more people to drink water than the threat of death by dehydration. Studies have shown that an increase in water intake can actually reduce fat deposits because the kidneys need lots of water to function properly. Without water, the liver takes over. If the liver has to do its job of metabolizing stored fat, and also do the kidney’s job, it metabolizes less fat. Retaining water? Drink water. Believe it or not, more water intake releases stored water. Constipated? Drink water for normal bowel function to return.

In summary, if you are fatigued, constipated, retaining water, or stuck on a weight-loss plateau, take a hard look at your water intake. It has zero calories and will keep your body's engine running smoothly.

LINDA BUCH - BODY LANGUAGE (tm)-October 16, 2006

"I need to do some strength training and am more familiar with machines. I know free weights are recommended as well. What is the difference, really?" Helen Ash, Millersville, PA

FREE WEIGHTS VERSUS MACHINES, Part Two

In general, free weights require more of the body during the execution of an exercise. Fitness professionals know that, while *machines* (fixed in place with specific movements allowed) certainly have their uses (see my column on October 9, 2006), they do not train the body as well as *free weights* (dumbbells, barbells, adjustable pulley systems, medicine balls, ankle weights, and anything else that operates in three dimensions).

ADVANTAGES OF FREE WEIGHTS:

1. Free weights are more efficient in training the whole body.
2. Since many of the exercises are performed while standing, more of the whole body is involved in its execution.
3. Performing exercises while standing is good for the bones.
4. Real life moves are more easily imitated with free weights, which can move through many planes.
5. Exercising by using natural movements through many ranges of motion and planes requires more of the body and enhances basic life function.
6. Virtually every muscle can be exercised with very few (and much more inexpensive) free weights.
7. Lots of different moves can be put together at the same time to create exercises that build strength and muscle as well as improve function. Example: performing a lunge for the legs and gluteus muscles while at the same time executing biceps curls and/or shoulder presses.
8. Free weight exercises can be performed in conjunction with balance and stability challenges. Shoulder presses that are done while standing on one leg or on a wobbly object are more difficult than the same exercise performed while standing on the floor with both legs, and far more difficult than when performed while seated in a machine.
9. With free weights, your body has to figure out how to get past the weak spots in the arc of the lift; YOU are the machine.

DISADVANTAGES

1. Safety is the number one concern. Options create problems for your body to solve BUT they also allow for error, which can mean injury. It is often necessary to have a spotter and/or workout partner.
2. Proper form is crucial when using free weights, which involves a learning curve. This may mean means laying out some time and money for a few sessions with a trainer.
3. Basic physics can be problematic. With a machine, you can let go if necessary and nothing will hit you; you can quickly adjust a weight to a lighter level and get on with it. With free weights, this may not be advisable. Weights can land on top of you or you can strain joints, tendons, and ligaments if you lift too much too soon. Dust off your high school physics book and read about the Law of Gravity and the Law of Inertia!

In general, a program that utilizes many mediums is ideal, especially if some of the time is spent on free weights and training that emphasizes balance, stability, and core strength. That said, doing something is always better than doing nothing. It all boils down to goals, comfort zones, and specific needs. Doing something is always better than doing nothing so, as the ads says, "Just Do It."

RESOURCES

"The Complete Idiot's Guide to Weight Training," by Joe Gickman, Deidre Johnson-Cane, Jonathon Cane, (Alpha, 2002, \$18.95)

"The New Encyclopedia of Modern Bodybuilding : The Bible of Bodybuilding, Fully Updated and Revised," by Arnold Schwarzenegger. (Simon & Schuster, 1999, \$27.00.

LINDA BUCH - BODY LANGUAGE (tm)-April 17, 2006

BALANCING AEROBIC AND STRENGTH WORKOUT TIME

“I workout three times a week for 45 minutes each. Is it better to do my aerobic workout for two of the three sessions and, for the third session, do all of my weight lifting? Or is it better to spend 30 minutes each session on aerobic exercise and 15 minutes each session on weight lifting?” Jan McKenzie, Windsor, CO

Without knowing your goals (dropping body fat? handling stress?), or physical situation (arthritis? osteoporosis?), I cannot give you a definitive answer. Let's look at what each of these activities provides in health benefits and then you can make a well-informed decision for yourself.

Aerobic activity, along with healthy eating habits, is the key to weight control. For an activity to be “aerobic” the exercise must elevate your heart rate to a point that is 50-80% above your resting heart rate, generally known as your Target Heart Range. (Take your pulse first thing in the morning to determine your resting heart rate.) Your Maximum Heart Rate is VERY simplistically calculated by taking 220 minus your age. (“220” is assumed to be the maximum safe number of beats per minute for women; the number is 226 for men.) Since the heart is a muscle, it increases in strength when exercised because it must work harder in order to get oxygen to the muscles. As the heart gets stronger, it becomes more efficient at this task.

According to the University of Michigan Health System, any activity sustained for more than three minutes is considered aerobic. Aerobic exercise should be the main focus of most exercise programs because it decreases blood pressure, decreases resting heart rate (which reduces stress to the heart), increases the HDL (good) cholesterol, increases the efficiency of the heart and lungs, and burns calories. A consistent and challenging aerobic program will also change body composition by increasing lean muscle and reducing fat, reducing the risk of stroke, diabetes and other lifestyle diseases, and elevating the mood, allowing for better coping abilities when under emotional stress.

Where aerobic activity uses both glucose and fat as a fuel source, anaerobic (which means “without oxygen”) activities such as weightlifting primarily use glycogen (stored in the muscles) to fuel the action. Weightlifting helps maintain and build bone health and increases general strength. Strong muscles improve the ability to function in daily living from tasks like housework and gardening to carrying groceries and moving furniture. Strength training builds confidence and, by increasing lean tissue you will have more energy. Also, the increase in muscle mass will bump up the metabolism a bit so fat burning can become more efficient. It is often forgotten that weight training can improve flexibility and decrease joint pain. Weight lifting is strongly encouraged for those suffering from arthritis, MS, fibromyalgia and other diseases.

Keep in mind that, while we may love a nice comfortable routine, the body loves change. Keep track of your workouts week to week and change up the intensity of your cardiovascular and strength activities. Be sure to add some hills and sprints to your

aerobic sessions and change the volume of the weights lifted, employing heavier weights with fewer repetitions one week and lighter weights with more repetitions the next.

LINDA BUCH - BODY LANGUAGE (tm)- July 17,2006

FLABBY SKIN AFTER WEIGHT LOSS

“I lost 60# after kidney failure and a subsequent diet to help counter the disease. I walk, do 100 sit-ups, leg lifts in all directions, and work my arms by doing 60 repetitions with 3-pound weights. I have been doing this routine since January but the fat still hangs and is unsightly. What to do?” Karen Romano, Glendora, CA

Unfortunately, after considerable weight loss and body fat reduction, the skin can remain loose. This is because the skin is extremely elastic and is capable of stretching to accommodate every possible body shape and size. This elasticity comes at a price. After many years of being stretched to a certain point, the skin is not necessarily able to shrink-wrap to a new, thinner shape.

Building more muscle is one way to fill out some of the sag. Since you have been faithfully performing the same routine for quite some time, you are ready, in fact overdue, for a change in that routine. In order to accomplish this, I would suggest performing new weight lifting and strength training routines for the next six weeks. Yes, this means learning some new stuff but this is your best shot at filling out some of those uncomfortably saggy places.

To strength train properly, give attention to all of your major muscle groups. This means learning some exercises for the chest, back, shoulders, thighs, hamstrings, calves, arms, and the core muscles of the abdominals/lower back/gluteus. The best thing you can do for yourself is hire a personal trainer or other exercise specialist to help you design such a program. A long-term relationship and financial commitment is not necessary; three to five sessions should be plenty to get you going.

Since you have been performing high-repetition exercises with very low (or no) weight, be prepared for this to be the first thing that you change. Gradually increase your weights from three-pounds to whatever weight you can handle for 12-15 repetitions. This will obviously mean a rather dramatic increase in how much you lift. Therefore, for the first week or two, perform no more than one set per exercise just to get your body used to the change. After that, add more sets to the exercises performed. The most common misconception among women is that lifting heavy weights will make you look like Arnold in drag. While strength training will result in increased muscle mass, women do not have the testosterone necessary to create that sort of bulk. So, do not fear lifting heavier weights.

Your best option for proper equipment and professional guidance is a local fitness facility, community recreation center, or YMCA. You can also workout at home; it will just mean a little shopping. First, pick up books on weight training for women. Some recommended titles are: “Strong Women, Strong Bones Updated,” by Miriam E. Nelson, PhD (Perigee Trade, 2006, \$13.95) and “Total Strength Training for Women” (spiral bound) by Amazin Lethi (Thunder Bay Press, 2004, \$19.98). Next you will need pairs of

dumbbells in assorted weights including five, eight, 10 and 12 pounds to start. These can be found for decent prices at stores like Target.

After six to eight weeks of performing your new routine, go back to the personal trainer for reevaluation. The human body adapts quickly; in order to get change we have to keep changing as well.

LINDA BUCH - BODY LANGUAGE (tm)-December 18, 2006
FITNESS AND TIME CONSTRAINTS

“ I am limited by time right now due to work requirements. If I am limited, should I give up weight training? Cardio? Can I balance both?” G. Peasnat, San Francisco, CA

"Success usually comes to those who are too busy to be looking for it," said Henry David Thoreau. This is an opportunity for you to achieve another level of success rather than suffering a set back.

Accumulating activity time is just as viable and as valuable as doing all of your exercising at once. The staff at the Mayo Clinic (www.MayoClinic.com) suggests fitting in as much activity as you can throughout the day by making the most of the small bits of time that become available. Their suggestions include working out with hand weights and performing other exercises when watching TV, getting up 30 minutes earlier and taking a brisk walk around the block before work, taking a fitness break with co-workers during lunch, parking on the other side of the lot instead of by the door, and taking stairs instead of elevators.

Another easy way to see how much you are doing in the course of a busy day is to count your steps. Buy a pedometer, clip it on, and aim for 10,000 steps per day. (This could mean an additional caloric expenditure of 250-350 calories!)

If you can continue to get to the gym on a regular schedule, but want to feel less rushed, intensify what you do rather than skipping exercises. For cardiovascular exercise, you can easily drop the time spent huffing and puffing to 20 minutes from 30 or 40 minutes simply by adding sprints (add a 60 second sprint for every five minutes, for example) and by increasing difficulty. On a treadmill, pump up the incline; on the bicycles or cross trainers, increase the resistance.

When weight lifting, set up circuits where you move quickly from one exercise to the next. This can cut your strength training time in half. Another technique for compressing and intensifying a strength workout is to set up “pyramids”, where three or four sets of the same exercise are performed to complete muscle fatigue, one set following the other, but with slight weight increases or decreases.

Exercising not only provides some stress-control, but it also helps keep the brain agile. In a study at the University of Illinois at Urbana-Champaign, people who ran on a treadmill for 30 minutes prior to taking a computer test did better on the test than those who did no pretest exercise, and brainwave measurements showed that their decision-making speed had increased. Taking an exercise break, regardless of whether it is cardiovascular or strength training, can do wonders to clear the head and adjust perspective.

Don't strive for perfection. Instead of trying to maintain a normal workout routine, stay FLEXIBLE. Plan on maintaining an 80% schedule instead of 100%. In other words, retain some consistency with healthy eating and exercise habits; just don't make yourself crazy trying to adhere to standards that cause too much stress.

Finally, NEWTON WAS RIGHT. “A body in motion tends to stay in motion; a body at rest tends to stay at rest.” Movement gives us a sense of control and helps maintain basic conditioning. When you are finally able to get back into your normal routine, you won’t feel so defeated.

LINDA BUCH - BODY LANGUAGE (tm)-September 18,2006
Ankles and Exercise

“I severely broke my ankle three years ago. Because of this, I am having a hard time exercising. Can you recommend exercises that I can do which are not too hard on my ankle? I have tried water exercises but I am looking for something I can do at home.”
Denice Hicks, Oakland, CA

Professional guidance to restore function is very important. Since your break was severe, I hope you have done some rehabilitation work with a physical therapist (PT). Most rehabilitation exercises are performed with elastic bands, light weights and involve foot flexion, strength, and balance. The exercises will progress in difficulty over the rehabilitation period.

If you were taught exercises such as these, you should continue to do them. An appointment with your therapist may be in order to check their effectiveness and/or to learn some more challenging exercises. If you have not had the benefit of working with a PT, I highly recommend getting a referral from your medical provider and scheduling some sessions.

Your primary goal is to restore strength, flexibility and proprioception (which means that your body knows where it is in space and responds appropriately). Water exercise is very good; running in a pool is a particularly fine workout for ankles. But, since we are not aquatic animals, water exercise will not restore the strength and balance for everyday living on dry land. If a PT has cleared you for greater challenges, this means it is time to get to work on improving core stability as well as overall body strength. Since I used the word “strength” four times thus far in this column, you know what is coming: weight lifting.

The mistake many people make is thinking that they just need to do a little work on the injured area. An ankle injury affects how we walk, sit, and stand. Since joint and muscle functions are interrelated, working JUST the ankles ignores how this injury affected the rest of you. A total body strength training protocol is in order.

If you want to work out at home, you should obtain the following pieces of equipment:

1. **A Fitball** that is burst resistant. Ball Dynamics (www.balldynamics.com, 1-800-752-2255) has the best on the market.
2. Some **dumbbells** (Start with one pair each of three, five and eight-pounds.) Target has a reasonably priced selection.
3. A video/DVD to demonstrate the proper way to do basic weightlifting and strength training. A good variety can be found at www.balldynamics.com and www.performbetter.com.

You may also want to consider a light (four to six-pound) medicine ball with handgrips and an assortment of wobble boards or cushions just to add a bit of variety.

You will work on exercises like squats, hamstring bridges, torso rotation, abdominal crunches, pushups, heel raises, back extensions, and balance just to name a few. Because proper form and a well-organized routine are crucial some sessions with a personal trainer (most can arrange home visits) would be an excellent idea.

Bicycling, yoga, and Pilates are also recommended. Each has a different way of tackling strength, flexibility, balance, and core stability. Once you feel confident and have the blessing of your PT, try a walking program.

LINDA BUCH - BODY LANGUAGE (tm)-June 19, 2006

EXERCISE AND KIDNEY DISEASE

“My dad has kidney disease and I want to know what is best for him. He is 54 years old, 5’5” and 160#. Should he exercise or not? If so, what exercises are good for him?”

Bhavesh Amin, Jackson, MN

People used to think that kidney patients should not exercise. Nowadays, the availability of drugs to fight anemia makes exercise both possible and enjoyable.

The benefits of exercise include stronger muscles, more energy, lower cholesterol and triglycerides, stronger bones, better sleep, elevated mood, emotional rejuvenation, and lower blood pressure. As always, before beginning a program, check with your personal physician and enlist the guidance of a certified fitness professional.

Your program will depend largely on what you like to do and what your own physical limitations might be. The National Kidney Foundation suggests that you look at four things:

1. Form of exercise
2. Length of time spent exercising
3. Frequency of exercise
4. Intensity of exercise.

The Form of exercise depends on what you enjoy. Keeping in mind that using the large muscle groups (legs, chest and back) will give you the most benefits, choose exercises that keep these groups moving continuously. Bicycling (both indoor and outdoor), swimming, dancing, walking, snowshoeing, and skiing are good examples. If you have joint or foot pain, swimming will be your best option because it supports the joints and eliminates impact. Strength training is also beneficial because it keeps both muscles and bones strong. (Start with light weights where you can perform 12-15 repetitions.)

The time you spend exercising depends on your current physical condition and endurance capabilities. If you are new to exercise or have been sedentary for a while, begin with a few minutes a day; increase this to a few minutes two to three times a day. Work towards an average of 30 minutes a day or longer. It is important to listen to your body’s signals and stop or slow down if you experience lightheadedness, lose your breath, feel chest pain, or get muscle cramps.

The frequency of exercise will depend on your physical starting point. If you can, exercise three times a week, preferably every other day or every two days. Doing something everyday is the ideal goal.

Intensity comes from monitoring your total body condition while exercising. Be mindful of your own capabilities and alert to signals from your body. Basically, you should not become so out of breath that you cannot speak in normal sentences, and you should feel

completely recovered within about an hour after you stop. Your muscles may feel a bit sore but should not be so sore that normal movement is uncomfortable the next day. It is a good idea to start each day with some stretches and a slow warm-up of the activity. End your exercising the way you began by slowing down for the last few minutes and doing more stretching.

Any abnormal changes in your physical condition such as fever to worsening joint pain and/or changes in medication warrant a discussion with your physician.

Organizations That Can Help

National Kidney Foundation, Inc.

Phone: 1-800-622-9010

Internet: www.kidney.org

American Association of Kidney Patients

Phone: 1-800-749-2257

Internet: www.aakp.org

American Kidney Fund

Phone: 1-800-638-8299

Internet: www.kidneyfund.org

Life Options Rehabilitation Program

C/o Education Institute Inc.

Phone: 1-800-468-7777

Internet: www.lifeoptions.org

www.kidneyschool.org

LINDA BUCH - BODY LANGUAGE (tm)-February 20, 2006
IMPROVING GRIP STRENGTH

“Due to arthritis, I am having trouble with grip and digit strength. What can I do to improve this?” Name Withheld, Denver, CO

Many of us have difficulty opening jars and bottles but when arthritis is added to the challenge, the frustration level just escalates. Fortunately, there are many simple grip strength exercises that can be performed at the gym, while watching TV, or even when sitting in the car at a traffic light.

Since the forearms are key to grip strength, regular exercise for this area is essential. Many basic life moves performed throughout the day, especially pulling and twisting maneuvers, are hampered by weak forearms. The most basic exercise is known as a “reverse curl.” This is just like the “biceps curl” (hold a weight in your hands, palms up, and pull the weight up until the biceps are flexed). With a reverse curl, the palms of the hands are facing down instead of up but the movement is otherwise the same. If you have access to a gym or recreation center, this can be accomplished with either dumbbells or a barbell. Keep the weight light enough to finish three sets of 12-15 repetitions.

“Wrist curls” often follow reverse curls when strength training. Wrist curls involve holding onto a light weight while flexing the wrist up and down. You can also rotate the weight in a gentle turning motion to imitate a car key in the ignition or the turning of a doorknob. Keep a one or two pound dumbbell in the car and perform these wrist exercises while waiting at a traffic light, or work your wrists during a TV show. Another inexpensive way to exercise the wrists is to wring a towel clockwise and counter-clockwise.

Another use for a small dumbbell when working on grip strength is to give it a “death grip.” For at least one set, squeeze the handle of the dumbbell as hard as you can for a count of ten, or, hold onto the top of the dumbbell and squeeze it while holding it out in front of you.

Another course of action, believe it or not, is yoga. A study involving 37 normal adults, 86 children, and 20 patients with rheumatoid arthritis (RA) done at the Yoga Research Foundation in Bangalore (with equal numbers of non-participants as a control group) were studied in July 2001. They found that the grip strength of both hands increased in all the yoga participants. How much of an improvement varied with gender and age. This study is published on a Department of Health and Human Services website at: www.PubMed.gov.

Grip strength gadgets abound but one of the most useful is a squishy hand-held object called an “Eggsizer” that fits in the palm of the hand. Theraband makes soft weights and other assorted objects that work on flexibility as well as strength. Another very interesting tool is the “Dynaflax,” which is a small, hard plastic ball with a gyroscope in it. As you turn it in your hand, it works the muscles in your hand, wrist, and forearm.

Most of these items can be found in sporting goods stores or at:
[www.http://www.bindependent.com](http://www.bindependent.com)

LINDA BUCH - BODY LANGUAGE (tm)-March 20, 2006

BEST MACHINE FOR CARDIVASCULAR WORKOUTS

“What is the best machine for an aerobic workout? I currently use a Nordic Track. My interest is weight control and general fitness.”

Reid H. Sheaffer, Willow Street, PA

Without meaning to sound “snarky,” the best machine for an aerobic workout is the one you will use. That being said, there are so many options today--treadmills, rowing machines, elliptical trainers, step machines, bicycles, ski machines, and machines that combine several aspects of all of these--that your choices come down to some basic criteria that are specific to your budget and your needs.

First take an honest assessment of any physical limitations. Do you have back problems? Knee, neck or shoulder injuries? If the answer is “yes” then you should consult with an orthopedic physician or physical therapist before investing money into a piece of equipment that could cause further problems. Second, establish a budget. Equipment prices can range from about \$1,000 (such as the treadmill and striding machines from Horizon Fitness) to the amazing \$5,000+ “SportsArt Fitness X-Trainer,” which is a combination elliptical trainer/recumbent bike/resistance training machine.

In general, elliptical trainers, cross-country ski machines, and rowing machines are good because their operation also involves the upper body. Treadmills, stationery bikes, and step machines tend to favor the lower body. There are, however, new treadmill, step, and bicycle pieces on the market that have added upper body resistance.

The following suggestions are from IDEA (International Dance, Exercise, and Aerobics), a professional health and fitness association:

1. “Don’t Overbuy Features.” Beware of technology overload. For example, save on a built-in heart rate monitor by purchasing one separately. This way you can also use the monitor when exercising elsewhere.
2. “Don’t Skimp on the Basics.” Be sure it is sturdy, stable, and safe on joints.
3. “Avoid Fast or Sight-Unseen Purchasing.” Use the equipment for at least 20 minutes on a variety of programs. Be cautious with mail order.
4. “Don’t Ignore the Top of the Line.” Check out what is used at health clubs. Good professional brands often make excellent machines for home use. Avoid the cheap stuff and infomercial hype.
5. “Don’t Overestimate Your Abilities.” Commercials make it look easy. Be sure you can handle any learning curves.
6. “Don’t Limit Your Options.” If you are bored with the Nordic Track, try one of the many other equipment options available.
7. “Don’t Ignore Your Personal Comfort.” If you don’t like how it feels, you won’t use it regardless of how many calories it burns.

8. "Don't Believe Everything You Hear." Infomercials are particularly adept at convincing us that a simple machine will produce lean, muscled bodies in only minutes a day.

9. "Don't Go It Alone." Talk to other people who own the equipment, fitness professionals in your area, and equipment representatives. Find out everything about equipment warranty, return policies, delivery, and setup options.

10. "Don't Overlook the Little Things." Good equipment does not necessarily have to take over your entire house. Exercise variety can be achieved with a balance ball, resistance bands, hand weights, and exercise videos. Adding some balance, strength, and flexibility exercises to your workout will improve general fitness and also help with weight control.

LINDA BUCH - BODY LANGUAGE (tm)-May 22, 2006

TAKING THE GYM WORKOUT HOME

"I am age 50 and started weight training for the first time in my life via a trial membership at a national health club chain. My finances do not allow me to join so how can I convert what I have learned to a workout with weights in the home?" Janice, Denver, CO

Learning the proper way to handle weights and getting a taste of how good strength training can feel are valuable experiences. What you can take home with you, as far as specific weights are concerned, is another matter because the equipment available to large health clubs is often designed to be specific to certain parts of the body. Otherwise, the basic principles of lifting, as they pertain to form, will be the same regardless of equipment used.

While it is tempting to purchase from infomercials or buy inexpensive items from discount stores, quality can be an issue. It is far better to invest in better products from specialty distributors; you will be happier with the product in the long term and therefore be more consistent with your exercising.

You can find some excellent "multi-gym" pieces at stores like "Busy Body" which cater to people who want to workout at home. Most multi-station pieces offer a leg press machine, pull down/push down equipment, ground level pulling apparatus, and configurations for the chest and shoulders. Many are very compact and can fit into a corner area of the garage or basement. Otherwise, exercises that you learned at the gym, especially for the legs, will have to be duplicated with free weights. Squats and lunges will take the place of presses with the leg machine, for example.

Great workout equipment can be obtained for \$500 or less by purchasing a Swiss Ball, an aerobic step with a couple of risers, dumbbells, and resistance bands. Swiss balls (also called "exercise" or "stability" balls) have become very popular in recent years and can be found just about everywhere. The best on the market is the "FitBall" from Ball Dynamics, Longmont, CO. These are burst resistant, made in Italy, and are reasonably priced. Ball Dynamics can be reached at 1-800-752-2255 or on the Internet at www.balldynamics.com. They also sell books and DVD's to teach and illustrate excellent workout routines

Another great piece for the home is the "VersaBall FX," an exercise unit that encloses a Swiss ball in a special chair with attachments for resistance bands. A book of exercises for strength, flexibility, and core strength improvement is enclosed. This (and lots of other great stuff) can be purchased from Power Systems, 1-800-321-6975, or online at www.power-systems.com.

Dumbbells are always handy to have around for home workouts but storage is the usual conundrum. A Minnesota company called "Powerblock" has eliminated the clutter and expanded the strength training possibilities for folks who wants home gyms with a

superior product called the “PowerBlock.” It employs the same principle as a Russian nesting doll but is a complete set of hand weights. Any of their assorted sets of weights (in many ranges of heaviness) will take up as much floor space as a laptop computer. They can be contacted by calling 1-507-451-5152 or online at www.powerblock.com.

LINDA BUCH - BODY LANGUAGE (tm)-January 23, 2006
MUSCLE GAIN and HYPERGLYCEMIA

"I am 56 years old, 5'10" and have had a full hip replacement, quit smoking, and have been working out for a year. I have slightly high blood sugar but so far have not been diagnosed with diabetes. I have started to lose more weight than I want to, now at 185# down from 200#. How can I add muscle and not lose more weight?"

David Moles, Houston, TX

Tackling rehabilitation after major hip replacement surgery, quitting smoking, losing weight, and getting into regular exercise all in one year is a major commitment to a better life and you are to be commended! "Slightly high blood sugar" is nothing to trifle with, however, so you may have one more hurdle to clear in your obstacle course toward a healthier life.

Hyperglycemia is an abnormally high level of sugar in the blood and can be caused by stress, injury, illness, surgery, and eating more food (particularly foods that are highly processed or high in sugar) than necessary for your needs. Uncontrolled weight loss, along with dry mouth/thirst, frequent urination, fatigue, blurry vision, and constant hunger are all symptoms. Some other causes for weight loss are pancreatitis, hyperthyroid, inflammatory bowel disease, and cancer. Also, there is a very fine line between hyperglycemia and diabetes, so do not delay in getting to a specialist in metabolic disorders for blood work and urinalysis.

To get to some possible and practical answers for why you are experiencing high blood sugar, do a complete and honest food diary for one week. This means that you write down EVERYTHING you eat, regardless of how small or innocent. A registered dietitian can then analyze your food choices to see if you are eating too many foods with a high glycemic index. Foods high on the glycemic index tend to convert to glucose more quickly and, thus, flood the blood stream with sugar. Foods high in sugar and refined flour (most processed foods) are in this category. Foods high in fiber (fruits, vegetables, grains, and beans) tend to be lower on this index.

As for exercise, weight lifting is an excellent way to control blood sugar because increased muscle size means greater metabolic activity. Weight lifting can also increase your overall strength and improve your general quality of life. Checking your blood sugar levels before exercising is very important, however. If your blood glucose level is above 250 mg/dl or if you have high levels of ketones in your urine, do not exercise. (Ketones are chemicals that appear in the urine when body fat is being broken down for energy instead of sugar. "Ketosis" also occurs when not enough food has been eaten to provide the energy the body needs.)

If weight lifting is a new activity for you, begin with lighter weights, performing 12-15 repetitions per set. At first, one set per exercise may be enough but as you become stronger more sets can be added. Lifting twice a week is a good schedule for people new to lifting. If you find this an enjoyable activity and you like the results, feel free to add a

couple of more days of lifting to your weekly schedule. A certified fitness trainer can teach proper form and help organize a suitable workout routine for your goals.

LINDA BUCH - BODY LANGUAGE (tm)- October 23, 2006
SENIORS AND TAI CHI

"I would like any information about Tai Chi. Why it is good for seniors and where I can find a class?" D. Concepcion, Dublin, CA

Travelogs on China often show large groups of people exercising together in a park, bodies flowing and moving as if being buffeted by gentle breezes. The people are practicing an ancient form of martial arts called Tai Chi chuan (tai chi). This non-impact discipline of fluid postures and deep, controlled breathing has been found to lower blood pressure, improve the immune system, reduce symptoms of fibromyalgia, reduce stiffness and pain of arthritis, increase strength, reduce anxiety, and improve balance control. It has also been cited as being helpful to those who suffer from the pain of multiple sclerosis and Parkinson's disease.

Since movements are slow and circular, tai chi is an ideal endeavor for those with chronic illnesses and/or balance and posture difficulties. Numerous studies have been conducted with seniors and the practice of tai chi, focusing particularly on its affect on falling. The results were startling.

Falling is extremely dangerous for senior populations. If bones or joints are broken or injured, the physical decline for the victim can be rapid and painful, often leading to an early death. A study conducted by the American College of Sports Medicine (Li, F. et al 2004. "Tai Chi: Improving Functional Balance and Predicting Subsequent Falls in Older Persons," *Medicine & Science in Sports and Exercise*, 36 (12), 2046-52) split a group of 256 healthy elderly men and women between one that performed a stretching routine (the control) and the other, tai chi training.

Before beginning the study, all participants were tested on their gait, different tasks that resembled daily life, and on reaching. The subjects were tested once at the beginning, at three months, six months, and finally at six months after the study and the organized activities ended.

After six-months, the tai chi group had significantly fewer falls (defined as "any accident that resulted in a subject landing on the floor, ground, furniture, or stairs.") In fact, six months post-exercise, the tai chi group recorded 28 falls to the control group's 74.

How is all of this the result of tai chi? Because the muscles used for the postures and stances focus on the hamstrings (behind the thigh), the shins and the calves. A study conducted at the Institute of Neuroscience at the University of Oregon (published in *Aging Clinical Experimental Research*, 2006; 18 [1], 7-19) concluded, "Practicing tai chi enhanced the neuromuscular responses of the muscles controlling the ankle joint which is critical to reacting quickly to slips or trips."

Since the postures and movements are very precise, consistent practice is recommended. After a 60 to 90 minute tai chi session most participants report feeling calmer and more tranquil. Many also acquire a better understanding of balance, rhythm, body alignment,

and posture. The slow, focused tempo is a welcome change in a world that seems to always be in an inexorable rush!

Tai chi can be learned in a class or via DVD/video:

“Easy Tai Chi,” Dr. Keith Jeffery. Call: 1-866-6 TAI CHI or go online:
<http://www.easytaichi.com/>

“Tai chi For Seniors,” 1-800-497-4244, <http://www.taichiforseniorsvideo.com>

For information on classes in the Bay area try the Wu (Hao) Tai Chi Foundation:
info@wuhaotaichi.com.

Or, contact the Arthritis Foundation in your area.

LINDA BUCH - BODY LANGUAGE (tm)-April 24, 2006

ACCURATE BODY FAT MEASUREMENTS?

“I am a 56 year-old female. At my gym they use calipers to measure body but my body fat registers 9% lower on my Tanita scale than what the gym computes. Why? And, does age matter?” Peggy Maday, Denver, CO

It has become clear that it is *fat loss*--not *weight loss*--that defines good health and reduces risk of obesity related diseases. But, since the only way to calculate body fat with 100% accuracy is through a post mortem, we must be satisfied with less accurate methods that yield ballpark results.

The easiest and cheapest is performed with calipers which measure skinfold thickness at anywhere from three to seven locations around the body. The accuracy is dependant upon the skill of the caliper operator, the quality of the calipers, and the sites measured. Different sites are chosen for women and men due to the different areas of fat storage attributed to gender. (Yes, age is a factor. As we age we tend to store fatter, which is why the “normal and healthy” percentage for body fat goes up on the reference tables.)

The caliper method assumes that 50% of our body fat is under the skin with the rest located around organs and in muscle tissue. This method may not, therefore, be valid for some populations. Genetics, exercise levels, eating habits, and extreme obesity are factors that skew results. Also, there are over 100 different equations used to compute the numbers and their accuracy can be off by as much as +/- 6%.

Tanita, Homedics, and Taylor offer bathroom scales that will measure your body fat in the privacy of your home. Once you enter age, gender, height, and activity level into the unit, step on the scale (barefoot) and a low level electrical current, carried by water, travels through the body. The scales measure where water is NOT located (fat does not store water, muscle does) so good hydration is crucial for accuracy.

The Tanita scale is the most well known since they were the first on the market for home use. Their prices range from \$90-120 and offer an assortment of features such as body fat, hydration levels, bone density and even metabolic age. Their competitor is Homedics/Taylor whose scales, at about \$80, offer body fat and hydration measurements along with calculating the number of calories required to maintain and/or lose weight.

Another other popular method relies on Archimedes' Principle of water displacement. Hydrostatic weighing involves being weighed first on land and then in water. A standard calculation is applied to the results. The assumption is that, since fat is less dense than water, a person with more body fat will weigh less in water while a leaner person will weigh more. The problem with this method is that people with osteoporosis (with less dense bones) will have an overestimation of body fat while athletes (with denser bones and muscles) get an underestimation. Also, residual air in the lungs can also skew the results. (The “Bod Pod” applies this same principle with air displacement, where the amount of air displaced is measured after sitting in the capsule for 20 seconds.)

The choice comes down to personal preference because all are excellent products. The accuracy of these scales can be as close as +/- 2-3% as compared to laboratory tests with a DEXA (an expensive X-ray machine that also measures bone density). Accuracy is dependent on the users ability to duplicate conditions almost exactly each time the scale is used. Factors that will skew the results are dehydration, exercising or eating before measuring, prescription drugs, caffeine, alcohol, and menstrual cycles.

The important thing is to find a method you like, mimicking the conditions of each measurement session as closely as possible. All of these methods are good tools for measuring progress with your diet and exercise program. Be careful of too much emotional investment in the results regarding your actual body fat.

LINDA BUCH - BODY LANGUAGE (tm)- September 25, 2006
MUSCLE LOSS AND WEIGHT GAIN AS WE AGE

"I am 50 years old, have always been very petite (5'-2. 5"), and used to be a size 2. Now I am busting out of my size 4's and weigh 122 instead of the 110 I weighed at age 40. I am not athletic and am not an exerciser but obviously I need to do something" Karen E., San Francisco Bay Area, CA

"Regular exercise" is mentioned on virtually every page of the Human Machine Maintenance Manual. But it is easy to skip exercise and convince yourself that all is well when your weight doesn't change over the decades.

The weight gain so many of us experience in our 40's and 50's is not necessarily due to the vagaries of growing older. Rather, the seemingly "sudden" gain is due to the gradual loss of muscle--as much as a half-pound of muscle per year after age 25 if we do not exercise to maintain it. This loss accelerates after age 45-50. As University of Maryland researcher and fitness author, Pamela Peek, M.D., says, "Up to age 50 you can get away with not exercising. After that, you start paying the price."

Body composition is not the only problem. With muscle loss and the accompanying gain in fat we also set ourselves up for a variety of diseases. When the body has too much fat compared to muscle, proper sugar metabolism can be jeopardized and levels of blood lipids like triglycerides and cholesterol can become too high. This often leads to diabetes, heart disease and stroke.

You can fight back, however, with some strength training and cardiovascular activity. And the really good news is that you can begin any time and still achieve markedly positive results.

An Internet support link, Spark People (www.sparkpeople.com), provides "The Top 10 reasons everyone should strength train (and LOVE every minute of it." Here in condensed form:

Strength Training: Preserves muscle mass during weight loss, elevates your metabolism, helps you lose weight more easily (or eat more without gaining weight), increases bone density, counteracts depression, reduces sleep difficulties, reduces your risk of diabetes, lowers your blood pressure, helps you age more gracefully, and improves your quality of life.

The National Institute on Aging also supports these suggestions and further advises that exercising just three days a week (a combination of strength and cardiovascular) for a minimum of 30 minutes can reduce the risk of Alzheimer's by up to 60%, increase self-esteem, improve blood circulation, reduce incontinence, and improve flexibility and balance.

Since muscle is more metabolically active than fat, the more muscle we have the leaner we tend to be. On average, for every 10 pounds of lean tissue in our body, we need 500 calories to maintain it.

So, do not delay! Start a walking program of 15 to 20 minutes three times a week and build to a minimum of 30 minutes three times a week. Get started on a strength and muscle building program with inexpensive resistance bands or join a program such as “Curves” or “LA Boxing.” What is important is finding an activity you like or always thought you might enjoy and getting started *today*.

RESOURCES:

“The Ultimate Fit or Fat,” Covert Bailey, Houghton Mifflin, 1999, \$11.00.

“Fight Fat After Forty,” Pamela Peeke, MD, Penguin, 2000, \$14.00.

INTERNET SUPPORT GROUPS:

www.sparkpeople.com

www.weightwatchers.com

LINDA BUCH - BODY LANGUAGE (tm)-June 26, 2006

SPORT DRINKS, CRAMPING AND MARATHONS

“I am 66 years old and a runner for the past two years. While training for the Big Sur Power Run/Walk I used “Gu” and “Gatorade” as well as water. I had a lot of problems with cramping and tightness in the calves and thighs. How do I avoid this for the future?” Adrienne Chen, San Francisco Bay Area

Endurance running is a science. After all, this is not about just slapping on a pair of sneakers and going out for a jog. Endurance running takes planning and careful scrutiny, not just of the running, but also the fueling and hydrating.

A certain amount of trial and error is involved as you get to know your own body and how it responds to food and fluid needs. Some experimentation during your training, well ahead of the event, is advised. Every day for weeks prior, eat plenty of high-carbohydrate foods (bread, yogurt, bananas, pasta, yams, vegetables, potatoes) in order to stock your liver and muscles with glycogen, the body’s preferred fuel. The night before, eat a high carbohydrate meal (like pasta) and drink extra water. A couple of hours before the event, consume a meal of about 300 calories such as yogurt, banana, a granola bar, and extra water. It is never a good idea to try new stuff before a race! Be sure your selections are tried and true for you.

Continuous exercise for longer than one hour will require the consumption of calories during the run because your energy needs will exceed what your body is able to store. This is where the discussion on the advantages and disadvantages of liquid (like ‘Gatorade’ and ‘Propel’) and solid (gel packs such as ‘Gu’ and ‘Pocket Rocket’) carbohydrates can get spirited. Liquids are much easier for the body to digest. Swallowing solid carbohydrate could be uncomfortable if it sloshes around in a stomach full of liquid. Some people, however, report no problems at all and highly recommend using the gel packs.

Owen Anderson, PhD, editor and founder of Running Research News (www.runningresearchnews.com) points out, “If you have too much goo and not enough liquid the carbohydrate will be absorbed slowly, pull fluid into your gut, lower your blood volume and dehydrate you. Too little goo and too much water means not enough carbs will get to your muscles.” Anderson recommends taking five to six swallows of a carbohydrate drink (many runners dilute this with some water) every 15 minutes during the race.

“Exercise Performance as a Function of Semi-solid and Liquid Carbohydrate Feedings during Prolonged Exercise,” (International Journal of Sports Medicine, vol. 16(2), pp105-113, 1995), a study done in the Netherlands, indicated that more athletes did better with liquid carbohydrate/electrolyte drinks than those who added the solids.

Muscle cramping is usually caused by dehydration, and/or an imbalance of electrolytes (calcium, potassium and sodium). Potassium and calcium should be handled with the diet by consuming plenty of dairy, fruits and vegetables. For long exercise sessions, the addition of salt is critical. NYC Sports Medicine specialist, Lewis G. Maharam, M.D., recommends carrying a salt packet with you to add to your water along the way.

The American Running Association (www.americanrunning.org, 800-776-2732) is an excellent resource for new runners who want to learn how to train, eat, and hydrate correctly.

Other resources include:

SPORTS NUTRITION GUIDE BOOK, Nancy Clark, MS, RD, Human Kinetics, 1997, \$18.95.

ENDURANCE SPORTS NUTRITION, Suzanne Girard Eberle, MS, RD, Human Kinetics, 2000, \$18.95.

LINDA BUCH - BODY LANGUAGE (tm)-March 27, 2006
MEAL REPLACEMENT BARS

“Is it OK to eat ‘meal replacement’ bars, shakes, and so forth? Are these products good for dieters?” Jean Summerville, Tampa, FL

The compact, on-the-go food market is lucrative for the marketer and enticing for the convenience-starved consumer, but most Registered Dietitians and nutritional experts still do not believe that pre-packaged processed foods meet all necessary nutritional needs.

We often, however, do not have the time or the access to eat properly. Convenience becomes a higher priority when we are rushed, stressed, and starving. If the choice is buying a high fat/high sugar chocolate bar out of the candy machine, whipping through a fast food joint, or, pulling a “meal replacement” bar or shake out of your brief case, go for it. Any of these items with a complex carbohydrate/protein/fiber combination are preferable to a greasy burger and fries or a high fat/high sugar candy bar.

In 2003 the *International Journal of Obesity* published a review and analysis of the meal replacement literature. Of the studies reviewed--comparing the results from adults on meal replacement diet plans (one or two meals were replaced with commercially available products that included bars, shakes, and/or frozen entrees) with those on a conventional low-calorie diet of patient-selected foods--the weight loss at three months among the meal replacement group was 7% compared to the reduced-calorie food group at 4%. At the end of one year, 74% of the meal replacement group had not only lost but also maintained a 5% reduction in body weight, compared to only 33% of the other group!

The primary reason for this phenomenon is that meal replacements control *portion size*, an escalating problem in our “super-size me” culture. Another advantage is the variety. Since dieters often complain of feeling deprived of favorite foods, why not go for the Fettuccine Alfredo in calorie-appropriate portions that can be cooked in five minutes in a microwave oven? Not having to think about shopping, cooking, and measuring ingredients is very enticing.

Dawn Jackson, RD, LD, and media spokesperson for the American Dietetic Association and practicing dietitian at Northwestern Memorial Wellness Institute in Chicago uses them in her practice for all of these reasons. And she notes that for some people these are actually an improvement in overall nutrition. Katherine Tallmadge, MA, RD and author of *Diet Simple, Shed Pounds Without Even Trying* (Lifeline Press, 2004, \$14.95) disagrees. She likes people to learn how to eat “real food” and keep weight off successfully through real food enjoyment, not eating on the run. Real food rich in nutritionally dense complex carbohydrates (fruits/vegetable/grains/beans), lean protein, and fat (primarily from unsaturated sources) is always a preferred food source for maximum nutritional benefit.

In the December, 2000 issue of the Nutrition Action Healthletter, Bonnie Liebman, Director of Nutrition for the Center for Science in the Public Interest, points out that only whole foods contain the necessary phytochemicals and other nutritional nuances required for optimum health. Regardless of the easy solution provided by packaged meals, bars and shakes, take the advice of the Oracle of Delphi: "Nothing To Excess." Use them as tools for specific periods of time or in emergencies rather than as permanent aspects of a lifestyle.

Recommended resources: WWW.TodaysDietitian.com; WWW.ShapeUp.org.

COPING WITH STRESS

Stress at work is not only interfering with my weight loss plans but also my sleep and my social life. Any suggestions? Barb Hartley, San Francisco, CA

Stress. The word itself sounds like steam from a pressure-cooker. Research shows that the ability to recognize and cope with stress can lighten your mood and save your life.

We have a prehistoric mechanism hard-wired into our human physiology to protect us from danger. This is commonly called the “fight or flight response” which causes hormones like adrenaline (epinephrine) and corticosteroids (cortisol) to be secreted from the adrenal glands located at the top of each kidney. The physical response is an increase in heart rate and blood pressure, dilation of the eyes to let in more light and improve vision, and the dumping of sugar and fat into the blood stream to provide easily accessible energy for the muscles.

By design, our chances of survival are increased because the ability to run, climb, or fight back is improved by these physical enhancements. If this adrenal release happens in an office, however, it is generally unacceptable to dash across desks, leapfrog cubicles, or punch out coworkers. Instead, without a release, the hormones just roar around in the blood stream.

Clinical Nutritionist Carol Simontacchi, explains that “Over time the adrenal glands become overworked and the cortisol release becomes lowered or blunted.” Researchers (Rosmond, et al. 2000, *International Journal of Obesity*, 24, 416-22) found that “men [and I think we can assume, women] with a blunted pattern of cortisol secretion response were more likely to have increased body fat around the waist, higher blood pressure, and, blood sugar imbalances.” In other words, the risk for coronary heart and artery disease, obesity, and, diabetes is increased. It has also been found that chronic stress reduces the body’s ability to fight off viruses, increases gastrointestinal disorders, and can even mess with your short-term memory. Sleep disorders were also high on the list of maladies.

Exercise to the rescue. Stanford University researchers found that subjects who exercised four times a week (walking, biking, swimming, and/or strength training) for 30-40 minutes fell asleep in half their normal time and managed to sleep an hour longer. Other studies done at Duke University by psychologist Anastasia Georgiades found that those who exercised not only dropped their blood pressure but also had less of a rise in heart rate and blood pressure when put under stress. Numerous other studies have shown that exercise has a calming effect on mood, enhances self-esteem, and even “reprograms the brain for optimism instead of pessimism” (Brownell, K. *International Journal of Obesity*, 1995). Other benefits include less anxiety, more energy, and improved alertness.

Diet can also be a deleterious component of the stress cycle. Food can be misused as a refuge from problems and as a balm for jangled nerves. Too often, we eat unconsciously

for a break from the day and go for whatever is available in the lunchroom or vending machines. We can thank Mother Nature for this. Serotonin is a brain chemical that our body uses as a tranquilizer. Stress creates a craving for quick carbohydrates. Carbohydrates encourage the production of serotonin. This is why we reach for the cookie instead of the carrot stick.

This is OK once in a while, but as a lifestyle, can lead to serious problems. Scheduling a session or two with a Registered Dietitian will help you learn more about how to eat properly and cope at the same time. Relaxation techniques, like meditation and deep breathing are also extremely helpful. Disciplines like yoga and tai chi can be a good combination of exercise, relaxation, and meditation.

LINDA BUCH - BODY LANGUAGE (tm)-May 29, 2006

CYCLING TRAINING

“I have committed myself to do a two-day charity ride from Seattle to Portland in July. I am just getting into shape after a lifetime of inactivity and need some guidelines on how to prepare for this new adventure.” JD, Thornton, CO

Committing to altruistic endeavors like charity rides, runs, and triathlons are great ways to get in shape, feel good, and have fun at the same time. But for maximum enjoyment, preparation is the key.

First, do not welch on good gear. You are going to depend on your bike and clothing for hours of comfort, so shop with that in mind. Your largest investment will be the bike, of course, so make friends with the folks who own a bicycle specialty shop and start a two-way dialogue with them regarding budget, skill level, and goals.

You do not have to spend thousands of dollars on a bike BUT you should get the very best bike you can possibly afford that also can be adjusted to fit YOU. Everyone is different: knee/back/shoulder issues, length of the femur (thigh bone), arm length, and skill levels all will come into play when you are getting your bike fitted. What style of handlebars? Which saddle? What sort of pedals are most comfortable (Baskets? Toe clips? Neither?). What sort of gear ratios will you need?

As for clothing, get the best possible bike pants (padded with a seamless chamois crotch), helmet, bike shoes with a stiff sole, shirts and socks that wick away moisture, sunglasses, sunscreen, and gloves. Also, your hydrating will be drastically improved by wearing a “CamelBak” hydration system that can hold from 28- 100 ounces of water comfortably on your back with convenient sipping tubes that attach over the shoulder. Proper hydration is essential. Seriously consider purchasing this equipment.

As for preparing physically, it is important to start slowly and build up your miles week by week. Eight months of training is ideal before a long ride like the one you are contemplating. But if you are diligent, you can get prepared in less time by doing some sort of training (both on the bike and in the gym) most days of the week. A good training schedule can be found at: <http://www.aidslifecycle.org/training/>. VERY simply, they recommend starting with 1-2 rides a week the first few weeks and increasing to 3-4 rides/week after about three months. Increasing your weekly miles by five will help you improve your speed, endurance, and ability to climb hills without burning yourself out or harming the muscles. As you get closer to the event, you should be cycling 4-5 times a week and logging at least one ride that reflects the length of the ride you will be doing.

Throughout your training, balance your biking by cross training with swimming, engage in a weight lifting program (lighter weights at 15-20 repetitions will help build endurance), hike, dance, Pilates, and yoga.

Proper fuel is essential, so do a judicious and honest examination of your eating habits and shift towards foods that are nutritionally dense. *FOOD FOR FITNESS*, by Chris Carmichael (Putnam, 2004, \$25.95), and *7-WEEK CYCLING FOR FITNESS*, by Chris Sidwells (DK Publishing, 2006, \$15.00) are recommended.

Joining a cycling club and/or getting a buddy to ride with will also help with motivation. Most of all, have fun!

LINDA BUCH - BODY LANGUAGE (tm)- July 31,2006

IMPROVING CIRCULATION and MUSCLE TONE

“I am 80 and in good health. Can I use my stationery bike to improve circulation in my legs? Will hand weights help my jiggly upper arms? And, can I use regular sneakers to walk or should I buy special shoes?” Jeanne Texter, Wray, CO

Stationery bicycles are generally considered to be good exercise. If you are enjoying the use of one, and you experience no negative effects or have been advised by your physician to stop, by all means have at it. 20 to 30 minutes a day, two to three days a week, of moderate exercise is good for the circulation and for good health in general.

As for “jiggly arms,” building muscle is the recommended remedy and hand weights are an excellent medium. Exercises for the biceps and triceps include:

1. Biceps Curls, for the front of the upper arm.

* Sit or stand with good posture—shoulders back and down, pulling the shoulder blades toward one another, head in a neutral position to the spine (not looking up or down), and abdominal muscles and muscles of the lower back braced.

* Keep your elbows at your side (by the ribs), turn the palm of one hand up and curl the dumbbell toward your shoulder.

*Lower slowly and repeat with the other arm. Perform 12 to 15 repetitions with a weight where this feels like real exercise. Weensy little weights that could blow away in a strong breeze probably will not do the job. The goal is to lift the kind of weight that reflect things you do in daily life, like lifting grocery bags, kitty litter, dog food, and so forth. Do two-three sets every other day.

OPTION: If this hurts or stresses your elbow or wrist joints, perform the exercise with the weights held in a neutral position, with the palms of your hands facing your body instead of turned up.

2. Triceps Kickback, for the back of the upper arm.

*With your right leg in front and your left leg behind you by about 18 inches, lean forward at the hip, hold on to a sturdy chair or table with the right hand and hold the weight in the left hand, close to the body and with elbow bent.

*Straighten your left arm behind you, parallel to the floor; bring the weight back under the armpit. Repeat 12-15 times.

*Switch arms and leg positions and duplicate the exercise with the other arm.

“Weight Training Made Easy,” by Joyce Vedral, PhD (Warner Books, 1997, \$15.95) and “Strength Training for Seniors,” Wayne Westcott, PhD (Human Kinetics, 1999, \$32.00) are recommended.

As for walking shoes, there are a few questions you need to answer regarding your current shoes first. Is there enough space in the toe box for you to move and wiggle your

toes? Does the heel provide good support with a snug, but not tight, fit? Do the arches feel good after you have walked for 10 or more minutes? Is there enough cushion to absorb the shock of the foot on pavement?

If your current shoes flunk the test, then definitely shop for some new ones. If you do shop for new shoes, do not buy ones that need to be “broken in.” If they don’t feel good in the store, they will never feel good on a walk.