

What is Physical Fitness?

According to the American Council on Exercise (ACE), optimal physical fitness is often defined as the condition resulting from lifestyles that lead to the development of an optimal level of cardiovascular endurance, muscular strength, and flexibility as well as the achievement and maintenance of ideal body weight. In previous newsletters, we have discussed muscular strength and cardiorespiratory fitness. This month we will examine flexibility.

Flexibility

Flexibility is the range of motion within a joint along the various planes of motion. It is an important component of fitness and a critical factor in achieving peak physical potential. Evidence indicates that flexibility training contributes to enhanced muscular relaxation, improved range of motion within joints, improved muscular balance, enhanced speed of movement, reduced injury occurrence for certain activities, and improved performance of certain sport-related activities. Unfortunately, flexibility is often overlooked or misused.



A number of factors can limit joint mobility: genetic inheritance; the joint structure itself; connective tissue elasticity within muscles, tendons, or skin surrounding a joint;

strength of the opposing muscle group; and neuromuscular coordination.

Practicing both static and dynamic flexibility creates a full, usable, and safe range of motion at various speeds of movement around the joints.

Benefits include:

1. Increased physical efficiency and performance.
2. Decreased risk of injury.
3. Increased blood supply and nutrients to joint structures.
4. Improved nutrient exchange.
5. Increased neuromuscular coordination.
6. Improved muscular balance and postural awareness.
7. Decreased risk of low-back pain.
8. Reduced muscular tension.
9. Enhanced enjoyment.

There are two basic types of flexibility. **Static flexibility** is when you hold a position such as splits, and can be impacted by body core temperature, body structure, muscle fiber lengths, connective tissue viscosity/elasticity, and muscle tendon attachment points. **Dynamic flexibility** involves movement through a range of motion with an emphasis on maintaining both speed and force. It is impacted by the same variables as static flexibility, but also by neuromuscular variables, balance, speed and torque.

Can you be too flexible?

With excessive flexibility, there is an increased risk of incurring injury unless the proper muscular strength and balance between muscle groups are maintained.

Instability caused by overstretched ligaments may also lead to decreased joint-protective reflexes and neuromuscular coordination, and ultimately predispose a person to degenerative (arthritic) joint changes.

The four popular basic techniques used to increase flexibility are static stretching, ballistic stretching, proprioceptive neuromuscular facilitation (PNF) stretching, and active isolated stretching (AIS). Of these, the static stretching method is advocated by professionals as the least likely to cause injury.

Static stretching involves a slow, gradual, and controlled elongation through a full range of motion. For example, a person



stretching the calf would lean with a straight back over the forward knee until a pull, but no pain, is felt in the calf and then hold the position for 15 to 30 seconds. This low-intensity, long-duration stretch technique. Stretching in this manner causes the muscle spindles and central nervous system to adapt slowly to a lengthened position and muscle relaxation increase causing more long term progress in improving flexibility.

Prepare yourself for the world, as the athletes used to do for their exercise; oil your mind and your manners, to give them the necessary suppleness and flexibility; strength along will not do.

– Lord Chesterfield, British Statesman, diplomat and wit, 1694-1773

What to Eat and Why

Macronutrients Part 3: Fats

Though the excessive fat on our body is considered a bad thing, eating fat – the right kinds of fats, that is – is actually a healthy thing. Fat provides essential fatty acids and is necessary for the proper functioning of cell membranes, skin, and hormones, and for transporting fat-soluble vitamins. Fat is the primary fuel for light-to moderate-intensity exercise. It is the most concentrated source of food energy and supplies more than twice as many calories by weight (9 kcal/gram) as protein (4 kcal/gram) or carbohydrate (4 kcal/gram).

Although fat performs many important functions in the body and is a valuable metabolic fuel for muscle activity during long-term aerobic exercise, no attempt should be made to consume more fat. Following a



low-fat, high-carbohydrate diet is important for health reasons since a high-fat diet has been associated with cardiovascular disease, obesity, diabetes, and some types of cancers.

You need to recognize the many sources of hidden fat in foods. Fat is present, but not visible, in dairy products such as cheese, ice cream, and whole milk, and in avocados, chips, nuts, and many processed foods. Fat is more clearly visible in margarine, butter, mayonnaise, salad dressing, oil, and highly-marbled meats.

Most people should consume 20 to 30% of their calories from fat. Aside from decreasing overall calories, limiting consumption of dietary fat is the first step toward losing excess body fat. Doing so eliminates excess calories but not nutrients as long as you consume nutritious, low-fat foods.

Fat and Your Weight

- ✓ Contrary to popular belief, eating fat will not make you fat unless you also take in too many calories or eat the wrong types of fat.
- ✓ You can lose weight on a high-fat diet provided you cut back on calories.
- ✓ Eating a low-fat, high-carbohydrate diet will not boost your metabolism or give you a significant number of "free" calories.
- ✓ Eating a very low-fat diet can turn your body into a *fat-making machine*, and the type of fat that your body manufactures is saturated fat.
- ✓ Eating fat substitutes creates a craving for real fat.
- ✓ You can eat more food on a low-fat, high-carbohydrate diet provided you restrict yourself to bulky, high-complex carbohydrate foods such as fruits and vegetables. Low-fat or nonfat cookies, crackers, cake, and ice cream do not provide sufficient bulk to satisfy your appetite, causing you to take in too many calories.



The Good Fats	The Bad Fats
<p>Monounsaturated Fats Monounsaturated fats (MUFAs) lower total cholesterol and LDL cholesterol (the bad cholesterol) while increasing HDL cholesterol (the good cholesterol). Nuts including peanuts, walnuts, almonds and pistachios, avocado, canola and olive oil are high in MUFAs. MUFAs have also been found to help in weight loss, particularly body fat</p>	<p>Saturated Fats Saturated fats raise total blood cholesterol as well as LDL cholesterol (the bad cholesterol). Saturated fats are mainly found in animal products such as meat, dairy, eggs and seafood. Some plant foods are also high in saturated fats such as coconut oil, palm oil and palm kernel oil.</p>
<p>Polyunsaturated Fats Polyunsaturated fats also lower total cholesterol and LDL cholesterol. Seafood like salmon and fish oil, as well as corn, soy, flax, safflower and sunflower oils are high in polyunsaturated fats. Omega 3 fatty acids belong to this group.</p>	<p>Trans Fats Trans fats were invented as scientists began to "hydrogenate" liquid oils so that they would withstand the food production process better and provide a better shelf life. As a result of hydrogenation, trans fatty acids are formed. Trans fatty acids are found in many commercially packaged foods, commercially fried food (such as French Fries from some fast food chains), other packaged snacks (such as microwaved popcorn) as well as in vegetable shortening and hard stick margarine.</p>



What can we do?

- Avoid using cooking oils that are high in saturated fats and/or trans fats such as coconut oil, palm oil or vegetable shortening. Instead, use oils that are low in saturated fats and high in monounsaturated and polyunsaturated fats such as canola oil, olive oil and flax seed oil.
- Minimize using commercially packaged foods which are high in trans fats. Always read labels to look for trans-fat free alternatives.
- As saturated fats are found in animals products, use lower-fat version dairy such as 1% or skim milk instead of whole milk. Trim visible fats and skins from meat products.

Thanks to loyal reader April H. for suggestion the Macronutrients series for "What to Eat and Why".

Healthy Recipe from

Apple-Pecan Stuffing

Ingredients

- 2 tablespoons canola oil
- 2 medium onions, finely chopped
- 4 stalks celery, finely chopped
- 4 tart apples (such as Granny Smith), cored and diced
- 4 sprigs fresh thyme, or 1 teaspoon dried
- 2 teaspoons chopped fresh sage
- 5 cups cubed whole wheat bread
 - preferably 2 or 3 days old
- 1 cup chopped, toasted pecans
- 1/2 cup chopped fresh parsley
- salt to taste
- freshly ground black pepper
- 1/2 cup low-sodium chicken broth



Cooking Instructions

1. Heat the oil in a large nonstick skillet over medium heat. Add the onions and celery and cook until the vegetables are soft, about 10 minutes.
2. Add the apples, thyme and sage and continue cooking until the apples soften, but still hold their shape, about 5 more minutes.
3. Transfer the apple mixture to a large bowl. Stir in the bread, pecans and parsley. Add just enough chicken broth to moisten the stuffing and season to taste with salt and pepper.
(This can be made up to 2 days in advance and kept covered in the refrigerator.)
4. Preheat the oven to 350°F.
5. Bake the stuffing, covered with foil, for 30 minutes. Remove the foil and bake until the stuffing is golden brown on the edges, about 5 more minutes.

Serving Size: 1/2 cup

Nutrition Information

Number of Servings: 12

Per Serving			
Calories	155	Carbohydrate	16 g
Fat	10 g	Fiber	3 g
Protein	3 g	Saturated Fat	1 g
Sodium	131 mg		

What's your Excuse?

I have a party to attend.




If the party has dancing, limbo, or swimming, this is an acceptable excuse. You can skip your usual workout, if you know the party will have an activity involving exercise.

Do not skip a strength training workout, though, because it is too easy for the muscles to forget how they were stressed. At least complete one set (a group of repetitions or movements) of each exercise, thereby maintaining the muscle strength, mass, tonicity, and endurance you worked so hard to achieve. Waiting too long (more than five days) between strength training sessions will cause regression.

Promote exercise and overall wellness by having exercise-related activities at your own parties. Promote wellness by offering non-alcoholic beverages and healthier snacks like carrot and celery sticks. Encourage healthy dishes and drinks for potlucks, too. By eliminating alcohol from a party, you will be able to sleep well, knowing that all of your friends made it home without causing drink-driving collision.

Listen to all, plucking a feather from every passing goose, but follow no one absolutely. – Chinese Proverb

Odds and Ends

<p>Research shows that employees who don't feel well are less productive and may spread their germs if the illness is contagious.</p> 	<p>Slow and steady wins the race against the metabolic syndrome. Duke University researchers divided nearly 200 overweight adults into groups to see how different exercise intensities affected markers of the metabolic syndrome, including abdominal obesity, high blood-pressure and triglyceride levels, and low levels of HDL (good) cholesterol. People who exercised at a moderate pace for about 30 minutes a day did better than those who engaged in more vigorous, shorter workouts, apparently because the gentler pace allowed them to spend more time being physically active.</p>	<p>If you get nervous in the dentist's chair, schedule your appointment for the time of day you're at your best; avoid food and drinks that make you jittery; and talk with your dental team about signals you can use to indicate when you need a break.</p>
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The foolish man seeks happiness in the distance, the wise grows it under his feet.
- James Oppenheim, short-story writer, novelist, poet

I'm a great believer in luck, and I find the harder I work, the more I have of it.
- Thomas Jefferson, President and philosopher

Principles of Stretching

You will benefit most by regularly performing stretches which emphasize major muscle groups important in postural correction, as well as to individual sports activities. It is also important to target chronically tight-back areas such as hamstrings, calves, posterior neck, anterior shoulder, hip flexors, and low-back musculature. In addition, If you have overworked a specific muscle group during exercise or daily activities, include a series of stretches addressing that area at the end of a session.



Daily stretching is best and, at the very least, stretching should be performed before and after activity sessions. In preparation for activity, the pre-stretch should be primarily active and aimed at decreasing tissue stiffness and focusing particularly on the muscles that will be used in the activity to follow. With intense exercise, body temperature increases and tissues offer less resistance. Therefore, stretching for permanent elongation is emphasized later in the workout rather than at the beginner. Stretching after exercise may also enhance muscle relaxation, facilitating normal resting length, circulation to structure, and removal of unwanted waste products

Guidelines for designing a stretching program.

1. Connective tissue elongation is the primary target when stretching.
2. The two most important factors influencing stretching are intensity and duration. A low-intensity, long-duration stretch favors more lasting plastic tissue deformation. A high-intensity, short-duration stretch favors a more temporary elastic tissue deformation.
3. Elevated tissue temperature facilitates range of motion.
4. Flexibility is specific; therefore, exercises must be specific to each joint and/or muscle group.
5. Proper alignment for each stretch is critical to achieve maximum effectiveness
6. Most stretches should be held for 15 to 30 seconds and repeated two or three times each.

Ask Deirdre

Have a question? Email at Deirdre@fitwell-lifestyles.com

Q. What are some suggestions for eating healthier over the holidays?

A. First of all, remember that the same sensible eating habits that apply throughout the year can be followed during the holiday. But sometimes it not that easy so here are some other helpful hints:

- * Make sure half your meal is vegetables and fruits, one quarter starchy carbohydrates and one quarter protein while avoiding gravies or creamy and cheesy sauces.
- * Keep to a regular eating schedule as much as possible. Skipping a meal makes you hungrier later in the day when you're more likely to go for the holiday snacks and goodies.
- * Keep fruits and vegetables on hand for healthy snacking.
- * Be sure to drink plenty of water.
- * Go low fat. Cut back on butter or margarine. Eat fewer foods that contain "hydrogenated" or "partially hydrogenated" oils. Switch to vegetable oils and trans fat-free (or soft) margarines. Season dishes with onion, celery, or herbs instead of extra salt. Trade the stuffing for wild rice pilaf. For cakes, casseroles and baked macaroni, use egg whites or an egg substitute instead of whole eggs, skim milk instead of whole milk, and choose low-fat cheeses.
- * Eat some healthy meals in between the holiday parties. Try to balance out the big "not so healthy" meals with some whole grain breads, fresh fruits, vegetables, yogurts, baked fish, or whatever healthy foods you prefer or are able to acquire if you are traveling
- * Avoid too much simple sugars. Simple sugars not only applies to the obvious cakes, cookies, candies, etc.; but also white breads, white rice, regular pasta, and white potatoes. Focus instead on whole wheat or multi-grain breads, brown rice, whole wheat pasta, and sweet potatoes.
- * Utilize a fiber supplement.
- * Try not to eat anything within 2 to 3 hours before going to bed at night.
- * Include some exercise during your daily routine you'll be much better off.
- * Catch up on needed sleep and rest.

When going to holiday parties and dinners remember that though you may not have a say in the menu, you do have control over what you put in your mouth. Eat a salad or an apple before heading out so



that you aren't starving. Pick the healthiest things to eat first such as fresh fruits and vegetables without the creamy or cheesy dips. Eat smaller portions and step away from the buffet after having one plate. Spend your time visiting instead of eating. And don't drink your calories. Alcoholic beverages are heavy on calories and light on nutrients. Alcohol stimulates your appetite and reduces your self-control, so if you enjoy a few cocktails you may end up eating more than you planned.

Finally, this is no time to start a new diet. Why spoil the festivities by feeling guilty about indulging in special foods for special times? Rather than trying to lose weight, try to prevent weight gain.