Training Tip #17 Asthma and Allergies



Allergic Rhinitis:

An immunologic response that occurs after environmental exposure to an allergen. Most common symptoms include runny nose with clear discharge, postnasal drip, sneezing, itching of the nose and palate and coughing. Nasal congestion may occur as well as headache and fatigue. Training walks and the event course expose walkers to varied types of grass, trees, pollen and dust which can cause an allergic response. Sleeping in tents on grass fields may also stimulate allergies.

If you have experienced seasonal or situational allergic rhinitis, be sure to bring your allergy medications. Antihistamines (oral or topical, such as Benadryl or Actifed) are most commonly used. Second generation antihistamines such as Claritin or loratidine are less sedating. Nasal corticosteroids are effective but usually take 3 days to begin to work. The best treatment is to anticipate exposures and pre-treat before symptoms begin.

Exercise Induced Asthma:

Bronchospasm presenting with wheezing, coughing and/or chest tightness occurring during or after exercise is called exercise induced asthma. It can be seen in 40% of those with allergic rhinitis. Rapid breathing and mouth breathing decreases the body's ability to warm and humidify air in the nose, throat and lungs.

In some people this can cause constriction and inflammation of the lung passages. Beta agonist inhalers such as Albuterol or Proventil can decrease these spasms. 2 puffs, 15 minutes before exercise, should help you for 3 to 4 hours. However, for longer exercise periods such as the Susan G. Komen 3-Day[®] or a long training walk, which could be 8 hours, a longer acting medication such as Salmeterol or inhaled corticosteroid should be used.

If you are experiencing asthma symptoms during or after exercise, consult your doctor for evaluation. If you normally use an Albuterol inhaler with exercise, be sure to carry it with you on your training walks or discuss changing your medication to the longer acting Salmeterol. Do not put your rescue inhaler in your luggage.

Allergic Reactions:

If you have allergic reactions to bee stings, mosquitoes, insects or foods, rapid treatment with antihistamines or epinephrine is best. Be sure to carry your own epinephrine pen on your training walks and the event.



To help prepare for hot weather conditions that you may experience during the Susan G. Komen 3-Day[®], you must train under conditions similar to those of the event itself. It will be cool when the walk begins in the early morning but quickly heat up by the afternoon. For these reasons, you must include training walks during the hotter parts of the day. You also should vary your walking terrain to include sidewalks, trails, asphalt and hills. Conditions that mimic the actual Komen 3-Day will help your body adjust and be prepared for the event.

Carry a water bottle with you at all times to help you monitor how much fluid you are consuming. For long walks over 45 minutes add a sports drink and a salty snack as well. Hydration is key to keeping your body cool.

It is also important to wear lightweight clothing. Look for material that will breathe and reflect the rays of the sun. Dress in layers so that you can remove clothing as the day becomes hotter. Apply sunscreen and carry it with you on your walks to reapply. Most importantly, pay close attention to your body and stop and rest in the shade if you get too hot or tired.

If you begin to get hot, do not push yourself. Rest at the pit stop and get fluids and a snack. If you need help getting to the next pit stop signal a sweep vehicle to take you there. Take advantage of the air conditioned sweep vehicles to cool down and rest. Check in with medical at the pit stop if you don't feel well and especially if you have any signs of dizziness, nausea or chills. If you need to get off the route, there are sweep vans that will take you to camp.

Once in camp, do <u>not</u> go immediately to the showers. Give your body time to rest and equilibrate. It is best to rest, get a snack and something to drink. If you're camping on the San Diego event, do not rest in your tent if it is too hot, as you can overheat. Find a shady spot in camp and rest there. Once you are rested, then go to the showers. After you have rested and showered it is important to remain diligent with hydration and nutrition. You will be ready to walk again once your body has recuperated.



Lymphedema is an accumulation of lymphatic fluid in tissue and presents as swelling to the upper extremity. It typically occurs after breast cancer treatments where lymph nodes or vessels are damaged or removed. It can develop at any time; weeks, months or even years later. Stressful conditions, such as an increase in exercise, can cause it to occur.

Signs can include a full/heavy sensation in the arm, skin feeling tight, hand or elbow pain, skin discoloration, decreased hand or wrist flexibility, difficulty fitting into clothing in one specific area or ring/watch/bracelet tightness. Swelling may develop at any part of the extremity. Seek medical attention as soon as you notice any of these symptoms.

Skin care is important to decrease the risk of infection. If you notice redness, warmth, swelling or tenderness to the skin, seek medical care at once. This is even more important if you have diabetes. Tips for skin care include:

- Keep skin moisturized and clean. Moisturize frequently and do not use harsh soaps.
- Take frequent breaks and rest when doing vigorous activities, especially if your arm feels tired, heavy or achy.
- Use an electric razor instead of a safety razor.
- Use insect repellants that do not dry the skin. Avoid those that contain a significant amount of alcohol.
- Use sunscreen with SPF factor 15 or higher. Reapply often.
- Apply antibiotic ointment to insect bites, cuts or abrasions (as long as you are not allergic).
- Rest your arm in an elevated position, but do not hold it up for a long time without support so that your muscles will not get tired.
- If you have arm swelling, wear compression bandages or garments and glove as instructed by your health care provider. Bring one or two spare sets with you on the Susan G. Komen 3-Day®.
- If you have a history of infections, use antibiotics as directed by your personal physician.
- Don't carry heavy objects or wear heavy shoulder bags on your affected side.
- Don't wear your watch or jewelry on your affected side.
- Don't wear clothing that restricts movement or has tight sleeves.
- Don't smoke or drink too much alcohol.
- Don't get manicures that cut or overstress the skin around the nails.
- Don't permit blood pressure testing or any type of puncture (injection, IVs, drawing of blood or vaccinations) to your affected arm.



As you get close to your Susan G. Komen 3-Day[®] event your body will need food and fluid. Food is fuel and carbohydrates such as breads, pasta, cereal, fruits and vegetables are the primary source for your muscles during exercise. Fluids are needed to decrease risks of dehydration and heat illness and replace those lost during exercise.

Pre-Event:

- Do not make major changes in your diet the week before the event.
- Try out different foods during your training walks to see if they upset your stomach.

Three days before the walk:

- Eat foods high in carbohydrates and balanced in protein and fat content.
- Avoid high fat foods which may cause bloating and give a feeling of sluggishness.
- Be sure to drink an extra 8 glasses (64 ounces or 2 quarts) of fluid during the 24 hours before the event or a long training walk.

During the event: Eat small amounts of carbohydrate every hour. The average person burns 100 calories/mile; this is equal to one small apple, a small box of raisins, 1/2 of a banana, 16 ounces of sports drink or 3/4 of an energy bar. Monitor your fluid intake. Drink when you are thirsty and make sure you are urinating at every pit stop. Drink a combination or water and sports drink.

Post-event: Consume carbohydrate-rich foods during 1 to 4 hours after your long walks to replace your muscle glycogen stores and prevent next day fatigue. Drink a combination of water and sports drink to replace fluid lost during exercise.



The Achilles tendon is a band of tissue that connects the heel bone to the calf muscle of the leg. Injury to the tendon may cause it to become inflamed or torn. Tendonitis is the term used when the tendon is inflamed. It can be caused by overuse of the Achilles tendon, tight calf muscles, tight Achilles tendon, uphill walking, overpronation (a problem where your feet roll inward and flatten out more than normal when you walk), or wearing high heels at work and then switching to lower heeled shoes for exercise.

Symptoms of Achilles tendonitis are pain and swelling over the tendon. It may be worse when you rise up on your toes or first thing in the morning. Achilles tendonitis that is not treated can lead to inability to walk and even tendon rupture. Treatment includes putting ice packs on the tendon for 15 minutes 3 times a day, taking anti-inflammatory medication and putting a heel lift insert in your shoe until the pain decreases. This is the one time where you can say that your doctor recommended that you wear high heels. Stretching the Achilles tendon is key to improvement and decreased recurrence.

<u>Towel stretch</u>: Sit on a hard surface with your injured leg stretched out in front of you. Loop a towel around the ball of your foot and pull the towel toward your body keeping your knee straight. Hold for 10 seconds. Repeat several times a day.

<u>Standing calf stretch</u>: Facing a wall, keep the injured leg back and the uninjured leg forward. Keep the heel of your injured leg on the floor as you slowly lean into the wall until you feel a stretch in the back of your calf. Hold for 10 seconds. Repeat several times a day.

<u>**Plantar fascia stretch**</u>: Standing with the ball of your injured foot on a stair, reach for the bottom of the step with your heel. Hold for 10 seconds, relax and then repeat.



Congratulations, you are only one week away from your Susan G. Komen 3-Day[®] event. Remember to go through your packing checklist early to make sure that you have enough socks, sunscreen, blister care supplies and personal prescription medications. Do not buy a new pair of shoes at this point. Bring 2 pairs that you have already trained in. Remember to take off your toe rings and refrain from getting a pedicure. It has taken a lot of time, energy and determination to reach this point of the Komen 3-Day and you should feel proud of yourself.

It is also natural to feel a little nervous. Visualization is a tool used by many world-class athletes to prepare for an athletic event. Repeating the images and sensations of a successful 3-Day[®] will train your subconscious mind to accept them as the truth, banishing any underlying negativity.

Each day this week, imagine yourself at the finish line of the 3-Day, smiling and feeling strong. Feel the breeze on your face as you walk and hear the crowds cheering you on. Feel your feet moving along the sidewalk, light and energized. Think about the clothes you are wearing and how they feel against your skin. Imagine the joy and pride course through you as you walk into camp with hundreds of newfound friends.

See the rows of breast cancer survivors in a sea of pink, thanking you and congratulating you. Imagine every little detail in your mind exactly as you want the experience to be. This is visualization and the more times that you return to this powerful image, the more likely it is to become reality.



Though the weather outside may get frightful, training can still be delightful! Follow these tips and you can build your walking endurance while staying safe and healthy.

- Select routes that do not have standing puddles or mud slicks.
- Use caution when walking on roads; cars may have more difficulty in seeing you in the rain and will not be able to stop as quickly.
- Plan for refuge along the way. Is there a store, park restroom or other place you can duck into to warm up and dry off during your walk if needed?
- Consider indoor walking alternatives: mall walking, treadmills, indoor tracks, stair climbing.
- If it is windy, try to arrange your route into the wind outbound and returning with the wind at your back. Select routes sheltered from the wind where possible.
- Warm up longer at a moderate pace before switching to your fast pace.
- You need water in winter as much as in summer, and drinking fountains may be turned off. Bring water along to stay hydrated.
- Stretch inside before and after walking.
- Cotton and denim should be avoided. Running pants or running tights made of synthetics that wick moisture will keep you more comfortable in rain and snow.
- Your base layer should wick sweat away from your body to keep your skin dry. Cotton should not be used. Good long underwear pieces are appropriate if made from fabrics such as Thermion[®], polypropylene, Thermax[®], Thinsulate[®] and silk.
- Your outer layer should protect you from the elements. Wear a windproof and water-resistant jacket. If you need extra warmth, add an insulating layer underneath of wool, fleece or down.
- A hat is essential to keeping your body heat from escaping, as well as keeping moisture out. A polar fleece hat with ear coverings makes for perfect winter headgear.
- If your walk is wet, invest in a pair of waterproof shoes with good traction. Many companies have lightweight styles to keep you dry. Coating shoes with a water repellent fabric treatment is another option.
- Switch to heavier socks or wear two pairs for more insulation. Test your socks with your chosen shoes to make sure there is still room for your toes to wiggle.
- If your walking route is away from home, bring along a set of warm and dry clothes to slip into immediately after walking to keep from getting chilled by wearing wet walking clothes.
- Plan for a nice warm drink when you finish. Also, a long, warm bath will take away the chill and relax your exercised muscles.



Though the weather outside may be frightful, training can still be delightful! Follow these tips and you can build your walking endurance while staying safe and healthy.

- Select routes that are cleared of snow or ice or do not have standing puddles or mud slicks.
- Walk on sidewalks. If sidewalks are not shoveled, walk against the flow of traffic.
- Use caution when walking on roads; cars may have more difficulty seeing you in rain or snow and maneuvering around you.
- Plan for refuge along the way. Is there a store, park restroom or other place you can duck into to warm up during your walk if needed?
- Consider indoor walking alternatives: mall walking, treadmills, indoor tracks, stair climbing.
- If it is windy, try to arrange your route into the wind outbound and returning with the wind at your back. Select routes sheltered from the wind where possible.
- Warm up longer at a moderate pace before switching to your fast pace.
- You need water in winter as much as in summer, and drinking fountains may be turned off. Bring water along to stay hydrated.
- Stretch inside before and after walking.
- Long underwear bottoms or tights underneath another pair of pants will keep you warm. Cotton and denim should be avoided. Running pants or running tights made of synthetics that wick moisture will keep you more comfortable in rain and snow.
- Your base layer should wick sweat away from your body to keep your skin dry. Cotton should not be used. Good long underwear pieces are appropriate if made from fabrics such as Thermion[®], polypropylene, Thermax[®], Thinsulate[®] and silk.
- Your outer layer should protect you from the elements. Wear a windproof and water-resistant jacket. For extra warmth, add an insulating layer underneath of wool, fleece or down.
- A hat is essential to keeping your body heat from escaping, as well as keeping moisture out. A polar fleece hat with ear coverings makes for perfect winter headgear.
- Mittens will keep your hands the warmest, as the fingers work together to build up warmth. Look for windproof mittens.
- The earth is closer to the sun December–February, so protect your skin. Lips and face can chap and burn without sun protection.
- If your walk is wet or snowy, invest in a pair of waterproof shoes with good traction. Many companies have lightweight styles to keep you dry. Coating shoes with a water repellent fabric treatment is another option.
- Switch to heavier socks or wear two pairs for more insulation. Test your socks with your chosen shoes to make sure there is still room for your toes to wiggle.
- If your walking route is away from home, bring along a set of warm and dry clothes to slip into immediately after walking to keep from getting chilled by wearing wet walking clothes.
- Plan for a nice, warm drink when you finish. Also, a long, warm bath will take away the chill and relax your exercised muscles.



To help prepare for hot weather conditions that you may experience during the Susan G. Komen 3-Day[®], you must train under conditions similar to those of the event itself.

- Conditions that mimic the actual Komen 3-Day will help your body adjust and be prepared for the event.
- Slow down; adjust your pace and distance. Train for walking in the heat by acclimating slowly, increasing the intensity and duration of your exercise over seven to ten days.
- It will be cool when the walk begins in the early morning but quickly heat up by the afternoon.
- Include training walks during the hotter parts of the day.
- Vary your walking terrain to include sidewalks, trails, asphalt and hills.
- While the 3-Day[®] routes may not always have areas of shade, if you can, select routes that are shaded to avoid direct sunlight.
- Plan for refuge along the way. Is there a store, park restroom or other place that you can duck into to cool down during your walk if needed?
- Carry at least one water bottle with you at all times while training to help you monitor how much fluid you are consuming. Add ice to your fluids to keep them cooler.
- Monitor your fluid intake. Drink when thirsty. Your urine should be dilute and you should be urinating frequently. Try to consume 4-5 ounces of fluid per mile (1–2 standard water bottles per hour). This should include water and sports drink.
- To prevent hyponatremia, consume electrolyte drinks if walking longer than 1 hour, and add salty snacks such as pretzels to maintain your salt balance.
- Map out a route of water stops to ensure you stay hydrated while training.
- Limit your intake of dehydrating beverages such as alcohol, coffee, tea and soda when you exercise. Match each glass of these liquids with at least one glass of water.
- Pay attention to local weather forecasts. Do not exercise during heat or air advisories.
- Remember to warm up and cool down. You still need to prepare the body to exercise, even in hot weather. This includes stretching!
- Plan shorter walks for hot days and save longer walks for more moderate heat.
- Recognize early symptoms of heat stress or hyponatremia: headache, dizziness, cramps, clammy skin and extreme weakness. If you think you might be suffering from the heat, stop, find shade and water, and let your body recover. Seek immediate medical attention if your symptoms do not improve.
- Watch your health. Make sure you are aware of both medical conditions and medications that can affect your tolerance for exercising in the heat.
- Keep your body cool and take advantage of any sprinklers or hoses that are on around you while walking.

Dressing for Warm Weather:

- Wear breathable, lightweight, light-colored, loose clothing.
- Choose fabrics that will breathe and reflect the rays of the sun.
- Choose fabrics that wick sweat away from the skin to provide for more cooling. Shirts, shorts, sports bras and socks should be made of these wicking fabrics.
- Dress in layers so that you can remove clothing as the day becomes hotter.
- If you experience chafing on your thighs, try bike-style shorts and layer them under looser shorts if needed.
- Bring along an extra t-shirt and pair of socks to change into if needed.
- Always wear sun protection. Use waterproof/sweat proof sunblock of at least SPF 15 and apply it 30 minutes prior to training.



- Try anti-chafing products such as BodyGlide[®], Vaseline[®], or powder if you experience chafed skin on your underarms, chest, crotch or thighs.
- Wear a wide-brimmed hat. Look for hats with vents or mesh to allow your head to breathe. For long walks, consider a hat with a neck drape to keep your neck from burning or look for neck coolers that you can soak in cold water.
- Wear sunglasses with UVA/UVB protection to keep your eyes shaded from the sun.
- Blisters develop more readily in hot temperatures. Prior to your walk, prepare your feet as needed to prevent blisters from developing.



Recent scientific research has underscored the benefit of remaining well hydrated before, during and following physical activity. Hyponatremia (low sodium) is a rare but serious condition that can cause weakness, cramps, swollen hands and feet, confusion, and even seizures. To decrease your risk of hyponatremia you must replace fluids lost through exercise and consume food with salt. Maintaining fluid balance takes a concerted effort on your part in modifying your drinking behavior throughout your training day. The goal for fluid intake during exercise should be to fully replace fluids and salt lost through sweating. The physiological and performance benefits of doing so are well documented.

The best way to estimate the amount of fluid you are losing through sweating is to weigh yourself before and after exercise. You should drink at least one pint (2 glasses or 16 ounces) of fluid for every pound of weight lost due to sweating. If you weigh more after your training session, you may have drank too much fluid. Another way to estimate your hydration status is to monitor your urine output in terms of frequency and color. If you are urinating a small amount of dark-colored urine, then you need to increase your fluid intake.

Rapid and complete rehydration following exercise requires the consumption of a volume of fluid and salt that is equal to that which was lost as sweat. The fluids that taste good and have some amount of salt in them tend to be consumed more rapidly. It has been shown that athletes who include a cold sports drink during their activity will drink more fluid. Eating foods that contain salt decreases your risk of over diluting your fluids. Your fluid replacement needs may vary based on the weather conditions, terrain and your training level. Drinking when you are thirsty is the scientifically supported method to use which takes this into account. However, for participants who may find it easier, here are some fluid replacement guidelines to follow under normal conditions:

Pre-training walk/Pre-event:

- Drink an extra 8 glasses (64 ounces or 2 quarts) of fluid during the 24 hours before a long training walk or the event.
- Drink 2 glasses (16 ounces or 1 pint) of fluid 2 hours before exercise. This will allow time to
 excrete the excess fluid prior to walking.
- Remember, in hot or humid weather you may need to drink more fluids.
- If you are walking at a slower pace, you may not need to drink as much.

During your walk: Monitor your fluid intake. Drink when thirsty. Your urine should be dilute and you should be urinating frequently. Try to consume 4 to 5 ounces of fluid per mile (1 to 2 standard-sized water bottles per hour). This should include water and sports drink.

Post Walk: Drink a combination of water and sports drink and consume food with some salt after exercising more than 1 hour.

Stretching



Stretching is key to helping you maintain flexibility and avoid injury. You will be amazed by how much it helps your walking. To help increase your flexibility you might want to consider adding a yoga or Pilates class into your training program.

Some guidelines for stretching are:

- Warm up first (walk for 10 to 15 minutes).
- Stretching before warm up may not be beneficial and also may be harmful.
- After warm up, increase to your normal pace, stopping occasionally to stretch.
- Hold each stretch for 10 to 15 seconds.
- Achieve the stretching position gently. Do not bounce.
- Only stretch within your limits. If you feel any discomfort, stop.
- Remember to breathe while stretching.
- The most important time to stretch is after your exercise or during any breaks in activity (at pit stops or lunch, when you are done walking).

Here are some stretching tips to follow while on the event:

- Stretch 5 minutes per hour.
- Stretch in the morning before you hit the road.
- Stretch at all the pit stops.
- Stretch waiting for the port-a-potty.
- Stretch at a red light.
- Stretch when you come into camp.

The Achilles Crouch: Keeping your heel planted, lean forward from a crouching position. You're

stretching the Achilles tendon, which runs down the back of the ankle to the heel. Repeat for the other leg.



The Lunge Stretch: In a lunge position, keeping your forward knee behind the forward ankle, lower your pelvis to the ground.

Keep your head up, shoulders level and eyes looking forward. This is for your groin and hips. Reverse foot positions and repeat on the other side.



The Butterfly Stretch: Using your elbows, press your knees down toward the floor. This stretches your inner thighs and hips.

The Gluteus Stretch: Lying on your back, hug your knee toward your chest to stretch the muscles in your buttocks. Repeat with the other leg.



The Spinal Twist: Cross one leg over the other extended leg, planting the foot on the floor.

Twist your trunk toward the crossed leg. Switch legs and repeat on the other side.



The Seated Hamstring Stretch: Bending at the hips, lean forward reaching your hands toward your feet. This stretches the back of your thighs and lower back.

Stretching



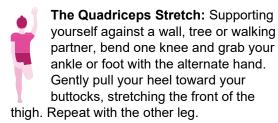


The Squatting Stretch: Keep both heels planted and lower your buttocks into a squatting position; hold the position.



The Calf Stretch: Using a wall, tree or walking partner for support, extend one foot three feet away from the support, with your heel firmly planted. Lean

forward to stretch the calf of your extended leg, putting your weight over the bent leg. Repeat with the other leg.





The Shoulder/Chest Stretch: Interlock your fingers behind your back. Keeping your chest high and eyes looking forward, gently raise your arms.



The Iliotibial Band Stretch (Standing): Cross one leg over the other and bend down to touch your toes. Repeat with other leg.



Iliotibial Band Stretch (Sideleaning): Stand sideways next to a wall or tree. Place hand on wall for support. Cross the leg that is closest to the wall over the leg that is farthest from the wall; lean into

the wall. Repeat with other leg.



The Hamstring Stretch: Lie on your back with your buttocks close to a doorway and extend your legs straight out in front of you. Raise one leg and rest it against the wall next to the doorframe. Repeat with other leg.

The Piriformis Stretch: Lie on your back with your knees bent. Cross right foot over left

knee. Place both hands behind your left knee and pull left knee toward left shoulder. Repeat with opposite side.



Rashes are difficult to interpret without actually seeing them. If you have a persistent rash or any other symptoms associated with a rash, see your doctor for evaluation. A discussion of all possible rashes is beyond the scope of this training tip, however, a common rash seen among walkers is a condition called "Capillaritis." Many walkers develop a rash on their legs without any complaint of injury or trauma.

This rash may be slightly itchy but is NOT associated with any lower leg swelling, shortness of breath, fever, chills, red streaks or pain. Capillaritis is a harmless skin condition in which there are small reddishbrown patches caused by leaky capillaries (very tiny blood vessels), primarily on the legs. The capillaries become inflamed, resulting in tiny red dots that look like cayenne pepper appearing on the skin.

The cause is unknown but this rash develops with prolonged impact activities such as walking. Blood thinning medications such as aspirin, non-steroidal medications such as ibuprofen, and birth control pills may increase its occurrence. There is no known cure for most causes of Capillaritis. It usually disappears within a few weeks, but may recur. Legs with Capillaritis should be kept cool and protected from UV light. Reapply sunscreen to your legs every 2–3 miles or at each pit.

Repeated rubbing of clothing against the skin may cause a contact irritant rash. It usually is blotchy and red and can be itchy and burn. There usually are no other associated symptoms. Sweating can cause clothing that was previously ok to become an irritant. Use absorbent socks and clothing that remove moisture from your skin and remove damp sweaty clothing as soon as possible after exercise.

Check your walking outfits for seams that might cause a friction rub. Use petroleum jelly, body glide like products or zinc oxide (Desitin) to prevent chafing in friction areas. Avoid perfumed lotions, deodorants or soaps that may increase your skin's sensitivity. Test your sunscreen on a training walk to see if it is irritating to your skin or your eyes.



During your training you should be looking for a new pair of shoes. You should plan on having two worn in pairs of shoes for the Susan G. Komen 3-Day[®]. The best way to find the shoe for you is to seek a technical running store or full-service shoe store and get fitted. Walking and running are not the same. In the walking stride, your foot strikes the ground further back on the heel with your toes higher in the air than in the running stride. A walking shoe should have a fairly low, rounded or beveled heel. In fact, a thick, squared-off running heel can lead to shin splints because, as the toes slap down, the foot pulls on the shin muscle. A walker also rolls further off the toes at the end of each stride than a runner. Therefore, your shoe needs to be flexible through the ball of the foot.

Your gait will also determine what kind of shoe you need. Check your old shoes for signs of overpronation or increase in an inner roll of your heel every time your foot strikes the ground. Set your shoes side by side on a table and view them from behind. If the heel cups lean in toward each other, then you probably overpronate. Choose a walking shoe with a medial post or motion control feature. If the heel cups lean outward, you probably underpronate. Choose a walking shoe that is well cushioned with air, gel or other high-density foam, in the heel.

In summary:

- 1. Walking and running shoes are not the same. Choose a shoe that works for you. Some types of running shoes may be ok for long distance walking but others may not.
- 2. Choose shoes with a low, rounded or beveled heel.
- 3. There should be a noticeable bend upward at the toe of the shoe (called toe spring).
- 4. Check for arch support: a midfoot stability feature or a shoe with a full ground contact bottom.
- 5. Overpronators: Choose a supported heel or consider adding an over-the-counter orthotic insert.
- 6. Underpronators: Choose a shoe with extra cushion or consider adding an over-the-counter orthotic insert.
- 7. Buy your shoes from a reputable technical walking or running store not a department store.



Food is the fuel that you need to train for the Susan G. Komen 3-Day[®]. If you are a diabetic or a vegetarian it is important to choose the right kind of fuel to keep your weight down and your energy up.

Walking is a great exercise if you are a diabetic. It is helpful in lowering your weight and your blood sugar. If you are on medication such as insulin or sulfonylureas, you are at risk for low blood sugar during or after exercise. It is important to monitor your blood sugar and your caloric intake. If your blood sugar is <100 mg/dl before exercise you may need to eat a carbohydrate snack. Talk to your doctor about changing your medication or food needs if you experience very high or low blood sugar with exercise, especially if you are trying to lose weight. The foods listed below can provide a foundation to build a healthy eating plan.

- 1. Aim to eat a variety of fresh fruits and vegetables daily.
- 2. Eat leaner protein sources such as chicken breast without the skin, light meat turkey, fish and soy. Protein is important for maintaining the muscle strength and mass of your body.
- 3. Try eating a whole-grain breakfast cereal, whole-grain breads, whole-wheat pasta or brown rice. Studies have shown that those who eat the recommended 25-35 grams of fiber daily are less likely to be overweight.
- 4. Sports drinks are useful to decrease dehydration while exercising. Consuming sugar-free juices (i.e., Crystal Light or Kool Aid) and snacks containing salt can accomplish the same goal.

In order for vegetarian diets to support optimal athletic performance, it is important to incorporate an adequate amount of protein into your daily diet. Many people believe that following a vegetarian diet means they automatically will lose weight. This is not necessarily the case as many vegetarians inadvertently have a high fat intake based on whole-fat dairy products, butter, eggs, cheeses, nuts and seeds. Below are some tips for following a healthy vegetarian diet to help lose weight, maintain an optimal protein intake and support your training walks:

- 1. Choose low-fat or fat-free dairy products or low-fat fortified soy products.
- 2. Build your protein around legumes, tofu and tempeh.
- 3. Watch serving sizes on nuts and seeds; they are full of healthy fat but are very concentrated in calories.
- 4. Avoid fried foods and choose those that are baked, broiled, or steamed.
- 5. Add protein powder to shakes or cereal if you are not getting enough.
- 6. Increase your bean intake; they are high in protein and fiber.
- 7. Add soy products to your diet.
- 8. Limit snacks that are high in sugar and fat.
- 9. Flavor foods with salsa, lemon juice and vinegars instead of high-fat condiments like butter, mayonnaise and high-fat dressings.

Certain vitamins and minerals such as iron, riboflavin (vitamin B2), vitamin B12, calcium and zinc must be consumed in adequate amounts. These typically are found in animal-based foods. Fortified soymilks are great for boosting calcium and vitamin B12. Eggs are also a great source of B12. Outstanding iron sources include fortified breakfast cereals, bread, textured vegetable protein, legumes, dried beans, nuts, dried fruit and green leafy vegetables. Eating rich sources of vitamin C with meals will help enhance iron absorption.

Training Tip #13 Lateral Knee Pain: Iliotibial Band Syndrome



"I have a burning pain on the outside of my knee."

"I hear a snapping sound on the outside of my knee."

"I have pain on the lateral aspect of my knee every time I walk over 2 miles."

If you have these symptoms you may have **lliotibial Band Syndrome**. The iliotibial band is a layer of connective tissue. It begins at a muscle near the outer side of your hip, travels down the outer side of your thigh, crosses the outer side of the knee and attaches to the outer side of your upper shin bone (tibia).

How does it occur?

ITB syndrome occurs when this band repeatedly rubs over the bump of the thigh bone (femur) near the knee causing the band to be irritated. This condition can result from:

- 1. Having a tight iliotibial band.
- 2. Having tight muscles in your hip, pelvis or leg.
- 3. Your legs not being the same length.
- 4. Walking on sloped surfaces.
- 5. Walking in shoes with a lot of wear on the outside of the heel.

How is it treated?

Treatment includes the following:

- 1. Walking and cycling and other exacerbating activity should be avoided.
- 2. Apply an ice pack over the lateral knee for 15-20 minutes 3 times a day for 3 days or ice massage your knee. Freeze water in a paper cup. Peel the top of the cup away to expose the ice and hold the bottom of the cup while you rub the ice over your knee for 5 to 10 minutes.
- 3. Take an anti-inflammatory medication, such as ibuprofen (do not take more than the recommended dose) for 3-7 days.
- 4. Once the acute pain phase has decreased, start stretching exercises (see below). Stretches should be performed holding each position for 15 seconds, coming up to the starting position and repeating three times. If your symptoms do not improve, seek medical advice.



Exercise can potentiate the effects of medications and increase possible side effects. Discuss your current prescription and over-the-counter medications with your primary care physician, even if you take them only as needed. The following medications can be especially affected by a 20-, 40- or 60-mile walk.

Blood Pressure Medications: Diuretics (hydrochlorothiazide, lasix, furosemide) may cause electrolyte imbalances, dehydration and potentiate the risk for heat illness. Discuss stopping your diuretic, decreasing the dosage or changing the medication during the Susan G. Komen 3-Day[®].

Anti-inflammatory Medication: May cause gastrointestinal irritation such as heartburn, diarrhea or even stomach bleeds. They can also cause kidney injury and lower leg swelling. The stress of exercise can increase these side effects. Do not exceed the recommended dosage of 2 tablets of Ibuprofen (400 mg. every 8 hours) or 1 tablet of Naprosyn (225 mg. every 12 hours).

Diabetic Medication: Insulin and sulfonylureas, which increase insulin in the body, can increase the risk of lower blood sugar during and after exercise. Know the signs and symptoms of low blood sugar (shakiness, blurred vision, difficulty walking or problems concentrating). Be prepared for low blood sugar by carrying 15 grams of carbohydrate with you when you exercise (2 glucose tablets, 1 small box of raisins or 5 lifesavers). Test your blood sugar before and after exercise. If it is less than 100 mg/dl before exercising you may need to eat 15 grams of carbohydrate. Estimate an expenditure of 100 cal/mile and plan your medications and food accordingly. If you experience low blood sugar, talk to your doctor about changing your medication or food needs.

Diet pills or Energy pills: Most diet medications are stimulants that contain pseudoephedrine, phenylephrine and/or caffeine. Even "herbal" products may contain Ma Huang, ephedra or derivatives of caffeine such as guarana. These drugs will increase your heart rate, heart palpitations and dehydration. None of these medications have shown any long-term weight loss effect. Avoid taking these drugs while training for the Komen 3-Day.

Antibiotics: Certain antibiotics (Doxycycline, Minocycline, Tetracycline, Accutane) may increase your risk of sun sensitivity. Be sure to use extra sun block that has zinc oxide or titanium oxide as its active ingredient and also wear a wide brimmed hat.



I know what you're thinking. How hard can this be? Everyone knows how to walk. But when you are walking 20, 40 or 60 miles, technique can be the key to preventing injury and increasing your walking speed.

Four common walking errors:

- Staring at the ground: Keeping your head down and shoulders slouched can lead to tightness and fatigue in the upper back, neck and shoulders. Focus your gaze off at the horizon and not down at your feet or the ground just in front of you. This will tend to pull your whole body more upright. Pull your shoulders back and chest forward.
- **Taking an extra-long stride:** This can lead to sore shins, tightness in the back of the thighs (hamstrings) and a jarring thud with every step. Try rolling, not bouncing, from one stride to the next. Try to put your foot down as fast as you can. Don't reach for the longest possible stride. Feel your body glide along the ground and try not to let your heels slam into the ground on each step.
- **Chicken wings:** Elbows flailing out to the sides with each arm swing can cause neck, shoulder and upper back pain. Feel your thumb rub the waistband of your pants as your hand swings back and then stop it there. Don't let it swing any further back. Imagine trying to elbow the walker directly behind you. Don't let your hips have an exaggerated side-to-side sway.
- **Hyperextending your back:** Excessive arch in the low back can cause tightness in the lower back and upper gluteal (buttock) muscles. Keep your rear end tucked underneath you by gently pulling your navel into your spine and flattening your stomach.



"Shin splints" is a term broadly used to describe pain in the lower extremity. Most commonly it refers to medial tibial stress syndrome. People will describe pain in the inner part of the lower half of the shin. At first the pain may begin at the start of exercise and then decrease after a warm-up period. However, with continued exercise the pain can become constant.

Shin splints are caused by overuse from repetitive activity. Walking increases the size and strength of your calf muscles. The calf muscles on the back of your leg can create an imbalance of forces on your anterior leg and cause inflammation. To prevent shin splints, adequately warm up your anterior and posterior leg muscles before exercise. See the stretching tips included in the training tools.

If you experience shin splint pain, decrease your walking mileage and focus on stretching. Start with the runner's lunge stretch for the calf or put a towel around your foot and pull your toes up towards your head. If you can, try sitting on your knees and feet to really stretch the front part of your leg. Be careful because this is hard on your knees. Freeze water in a paper cup and ice your shins right on the bone for 5 minutes, three times a day. Consider adding an over-the-counter arch support and check your shoe for adequate shock absorption.

Once you have stretched and your pain is decreased, begin strengthening exercises. Start with toe taps, first straight up and down then right and left. Add heel raises and toes raises. Finally, put a towel on the floor and, keeping your heel on the floor, use your toes to grab an edge of it, pulling it towards you. Try to increase your walking gradually and alter your walking surfaces to include grass, dirt, and track surfaces as much as possible. If your symptoms do not improve or get worse, see your doctor for evaluation.



"I have this grinding sound when I bend my knee." "My kneecaps ache after I walk." "I can't squat or kneel anymore." "When I sit for a long time and then stand up, I have severe pain all over my knee."

If you have these symptoms you may have patellofemoral pain syndrome or runner's knee.

Patellofemoral pain can occur from overuse of the knee in sports and activities such as running, walking, jumping or bicycling. The kneecap fits into grooves in the end of the thigh bone (femur) called the femoral condyle. With repeated bending and straightening of the knee, you can irritate the inside surface of the kneecap and cause pain. This syndrome also may result from the way your hips, legs, knees or feet are lined up. If you have wide hips or underdeveloped thigh muscles, are knock-kneed, or have feet with arches that collapse when walking (a condition called overpronation) you may be pulling your kneecap out of its groove and causing your pain.

What are the symptoms?

The main symptom is pain behind the kneecap. You may have pain when you walk, run or sit for a long time. The pain generally is worse when walking downhill or down stairs. Your knee may swell at times. You may feel or hear snapping, popping or grinding in the knee.

How is it treated?

Treatment includes the following:

- 1. Place an ice pack on your knee for 20 to 30 minutes 3 times a day for 1 week.
- 2. Elevate your knee by placing a pillow underneath your leg when your knee hurts.
- 3. Take anti-inflammatory pain medication, such as ibuprofen, as prescribed by your health care provider.
- 4. When the pain is decreased, start to strengthen your thigh muscles to get the kneecap back in its groove. See exercises below.
- 5. Infrapatellar strap (a strap placed beneath the kneecap over the patellar tendon) or a neoprene sleeve with a cutout for your kneecap may give you some support.
- 6. Have your gait checked for overpronation. Arch supports may be necessary. If your symptoms do not improve, seek medical advice.



Walking is a great exercise for you to continue with during pregnancy. Studies have shown that continuing to exercise during all three trimesters of pregnancy can improve your sense of well-being, decrease your risk of postpartum obesity, and decrease your recovery time after delivery. Some studies have shown shorter labor times, lower caesarean rates and children with higher neuro-developmental scores at 1 and 5 years of age in mothers who exercised during their pregnancy.

Having said all of this, remember that you should check with your obstetrician prior to participating in the Susan G. Komen 3-Day[®] during your pregnancy. Most normal, uncomplicated pregnancies will have no contraindication to walking. If you have never exercised, or are not a walker, now is not the time to train for a long walk.

There are several changes that occur to your body during pregnancy and a few tips to remember. Pregnancy increases your metabolic rate and you will burn an extra 300 kcal/day. This means that you will fatigue more quickly than you did previously. It is also easier for your body to overheat. Be sure to walk early in the morning or late afternoon. If you are feeling hot, stop and rest in a cool place. Heat exhaustion and dehydration can stimulate premature labor. Listen to your body and don't push yourself to the point of fatigue.

In addition, as you progress through your pregnancy there is an increase in the hormone relaxin. This hormone increases your flexibility to help your pelvis during labor. However, you can also overextend your joints while stretching or overstriding. Be sure to shorten your stride during walking and be careful not to overstretch.

Discuss your walking plan with your obstetrician. Have realistic goals for your participation in the Komen 3-Day. A successful event does not have to mean walking all 20, 40 or 60 miles.



Cross-training can be a helpful addition to your Susan G. Komen 3-Day[®] training program. It allows you to build muscle endurance while decreasing overuse injuries. Remember the 10% rule: you should increase your activity 10% each week in order to give your body time to recover between your training walks. It is possible to do too much, too soon. Pace yourself and pay attention to how your body feels at all times.

While walking is the most important preparation, other types of training that will help increase your stamina and strengthen walking muscles include:

- Elliptical Trainer
- Bicycling
- Stair Stepping
- Rollerblading
- Pilates

Strength training through resistive bands or low weights is also an important part of your training program because it can build muscle. Muscle increases your endurance and burns fat better than fat does. It need not be an extensive weight-lifting program. Interval or circuit training alternate aerobic activity with strength exercises. They can be an efficient complement to your training program.



The direct result of a friction rub, blisters can be caused by pressure in the shoe or moisture from perspiration. Staying well hydrated throughout the Susan G. Komen 3-Day[®] is important for all aspects of an injury-free walk, and this includes blister prevention. Dehydration allows the skin to fold on itself and create a friction rub. Proper shoe and sock selection also are key to preventing blisters. Hot spots are places on your feet where you feel tenderness, pressure, heat or pain.

If you feel a hot spot during a training walk, stop and change your socks. Increase protection over that area by applying moleskin, second skin or a bandage. Moleskin should not be removed until the end of the walk to prevent peeling off of the skin. Be sure there are no creases in the bandage, which could cause friction.

If you develop a blister, try not to pop it. Blisters are nature's way of creating a protective cushion and protect the skin from infection. Small blisters should be covered with a square of second skin and an adhesive bandage or a corn pad. Do not leave second skin on overnight as it will dry out and can irritate the skin.

For large painful blisters, clean the blister with an alcohol pad and have a medical professional drain it with a sterile needle. Be sure to keep the open blister covered with antibiotic ointment to prevent infection. Benzoin liquid, New Skin[®] or Tuf-Skin[®] spray are sometimes used to "toughen" the skin at problem areas. Try this out before the Komen 3-Day. Do not get a pedicure or try to remove calluses before the event or long training walks. Do not wear toe rings on your long walks. The heat may swell your toes and feet, decreasing their blood circulation.



Proper shoe and sock selection before the event is key to keeping your feet healthy and preventing blisters and other problems with your feet. Buy shoes at the end of the day when your feet are a little swollen and ensure that your shoes are the correct size and fit the architecture of your foot. Have your foot measured for length and width for proper fit.

As you train for the Susan G. Komen 3-Day[®], you'll want shoes designed specifically for walking. These shoes have:

- 1. Thinner midsoles, because walkers apply less force than runners.
- 2. A different center of pressure to allow for walkers' straighter strike path.
- 3. A smaller heel cleft angle since heel cleft changes relative to speed.

Plan on getting two pairs of properly fitting walking shoes for training and two pairs that have been brokenin four to six weeks in advance for the Komen 3-Day itself.

Choose a sock that pulls moisture away from your feet. Synthetic socks such as "Coolmax," "Dryfit" or wool socks are better than pure cotton for keeping your feet dry. Try wearing two socks or double-layered socks. Make sure that the socks fit well and don't bunch up in any areas. Plan on changing to clean, dry socks halfway through the day. Plan on two pairs of clean, dry socks for each day of the event. If your socks are still wet, try foot powder or spraying your feet with antiperspirant.

Use powders that are especially designed for feet. Cornstarch has a sugar base and may not be a good choice if you are prone to fungal infections or athlete's foot. You also may try Glide or Vaseline[®] to help prevent friction.



Training for an endurance event like the Susan G. Komen 3-Day® involves three things:

- Developing muscular strength and endurance
- Building cardiovascular fitness
- Experimenting with exercise gear, diet and fluids

Muscular strength and endurance is exercise specific. Walking is not the same as running; your feet hit the ground further back on your heel with your toe higher in the air and then you roll farther off the toes with each stride. Runners may never develop the arch support or mid foot strength needed by a walker. Your brain needs to learn which muscles to use and your body needs to develop the strength to walk. Not just for one mile but for 20 miles. Nothing trains you better functionally for walking than walking itself.

Cardiovascular activity can be developed with any aerobic activity. Cross-training has been included to decrease injury while building muscular strength and cardiovascular fitness. This can include cycling, swimming, rollerblading, Pilates or any whole body physical activity.

Experimenting with walking shoes vs. running shoes, socks, waist packs, backpacks, shorts vs. tights, etc. is an essential part of training to prevent blisters, chafing and injury. Walking while drinking sports drink, practicing pre-event, on-event and post-event routines for diet and especially fluid management is very individual and may require trial and error.

Your suggested training program allows for all three components of training. Cross-training to build your fitness, many long walks to experiment with equipment and diet, and most importantly a graduated increase in walking mileage. Note the moderate intensity training days where you can add periods of increased speed or hills to increase your endurance.

As you train it is important to listen to your body. Often injuries, strains, or areas of inflammation may not show up until 1–2 days after a training session. This program is only a guide, try to do as much as you can, but please do so safely. Happy Training!