



Walk your way to wellness and stride with purpose, pace, and power



GUEST CORNER

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Walking is a fundamental human physical activity that contributes significantly to our overall health and well-being. On the surface it appears to be a simple physical activity, but the biomechanics is more complex than we may realize and requires proper techniques to walk effectively and safely. As a physical therapist, I believe in the saying "When the foot hits the ground the body changes." The whole kinetic chain reaction is set in motion when you walk.

ANATOMY OF THE FOOT

A foot has 28 bones, 33 joints, 29 muscles and is divided into the hindfoot, midfoot and forefoot. The bottom of your foot has an estimated 200,000 sensory nerve endings connected to your brain to recognize where your body is in space and where your foot is on the ground (proprioception). Mindboggling, right?

THE IMPORTANCE OF A PROPER WALKING TECHNIQUE

Walking involves a complex interplay of muscles, joints, and the nervous system. Correct gait can help prevent injuries, improve efficiency, and enhance overall physical fitness.

NORMAL GAIT CYCLE

The walking cycle consists of two phases - stance and swing phase:

- *Stance phase:* the time the foot is on the ground (60% of the cycle). It begins when the heel strikes the ground and ends when the same heel lifts off behind you.
- *Swing phase:* when the foot is in the air (40% of the gait cycle). The swing phase begins as the toes leave the ground behind you and continues until that same heel strikes the ground in front of you.

KEY COMPONENTS OF AN EFFECTIVE WALKING TECHNIQUE

1. **Posture:** good posture is crucial to maintain a balanced and effective walking pattern:
 - *Head position.* Lift your ribcage up and away from your stomach. Elongate your spine from the coccyx to the top of your head, keep your head up and chin gently tucked. This allows your spine to maintain its natural curvature and keeps your center of gravity inside your base of support that assists in balance.
 - *Shoulders.* Relax your shoulders down and back but not rigid. This allows for better arm movement.
 - *Core/pelvic engagement.* Engage your core and glute muscles to provide stability and support for your spine.
2. **Foot placement:**
 - *Heel strike.* Land on your heel with your forefoot and toes pulled back. This action can help absorb impact and clear your foot to prevent stumbling.

- *Foot roll-through.* Transition smoothly from the heel to the midfoot to the toes. This rolling motion aids in balance and propulsion.
- *Avoid overstriding.* Ensure that your feet land under your hips to maintain balance and avoid putting unnecessary strain on your joints.

3. **Arm movement:**

- *Opposite arm and leg movement.* Your arms should move in coordination with your legs (right arm forward with left leg and vice versa). This symmetry assists in maintaining balance, coordination and rhythm.

- *Elbow position.* Keep your elbows slightly bent and swing from the shoulders with slight rotation from the upper thoracic area. This allows for a natural swinging motion that can enhance overall momentum.

4. **Breathing technique:**

- *Deep breaths.* Practice deep breathing to maximize oxygen intake, especially during longer walks. Breathe in through your nose and out through your mouth helps to maintain a rhythm.
- *Timing.* Coordinate your breath with your steps, inhale for a few steps, and exhale for the next few. This synchronization can improve endurance.

5. **Pace and duration:**

- *Find your pace.* Walk at a speed that feels comfortable but slightly challenging. A brisk pace enhances cardiovascular benefits while slower walking is beneficial for recovery.
- *Gradually build duration.* It's important to increase your walking time gradually, especially if you're new to physical activity. Start with 10-15 minutes and aim to increase to 30 minutes or more as a good goal.

6. **Safety considerations:** To ensure safety while walking:

- *Choose a suitable surface.* Walk on flat even surfaces to reduce the risk of tripping or falling. Avoid uneven terrain, especially if you're new to walking or recovering from an injury.
- *Wear supportive footwear.* Invest in well-fitted shoes that provide ample support and cushioning. Your footwear can help absorb shock and improve your overall walking experience.
- *Stay hydrated.* Drink water before and after your walking session.

7. **PROGRESSION IN YOUR WALKING ROUTINE**

- *Incorporate intervals.* Alternate between faster and slower walking for cardiovascular benefits.
- *Add inclines.* Walk uphill or use stairs to engage different muscle groups.
- *Use weights.* Carry light hand weights or wear a weighted vest to increase resistance.
- *Set regular goals.* Aim for a specific number of steps per day (e.g., 10,000 steps) or duration (e.g., 30 minutes).
- *Routine.* Schedule walks into your day to establish a habit and stay consistent.
- *Mindfulness and enjoyment.* Pay attention to your surroundings and connect with nature, it can help reduce stress and anxiety and improve overall mood.

8. **STRETCHING BEFORE AND AFTER YOUR WALK**

1. **Dynamic warm-up:** Before your



walk, perform dynamic stretches to warm up your joints and muscles. This can include leg swings, arm circles, and gentle twists. Save static stretches for after your walk.

2. **Post-walk stretching routine:** After your walk, perform gentle static stretches for your calves, quadriceps, hamstrings, and hip flexors to maintain flexibility and reduce muscle tension. Hold each stretch for 15-30 seconds.

Understanding the gait cycle is essential to improve your walking mechanism and address potential gait abnormalities. By setting realistic goals and incorporating these tips, you can enhance both the quality and en-

joyment of your walks and minimize the risk of injury. Everyone's walking style is unique, so it may be beneficial to consult a physical therapist to analyze your gait, especially if you have a pre-existing condition. Walking does not replace all other forms of exercise but if you want to build endurance and bone health, walking is a great place to start. Resistance training and moderate to vigorous-intensity aerobic training have greater effects, but that doesn't take away from the benefits of walking.

Lize Lubbe is the owner of Lize Lubbe Physical Therapy with its main practice located at 892 Route 35 in Cross River and a PT Studio in the premises of Apex Fitness (where her team focus on the rehabilitation of sports-related injuries). Learn more by calling 914-875-9430, emailing contact@lizelubbept.com or visiting www.lizelubbept.com.



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