

HINDMARSH AND FITZROY PHYSIOTHERAPY

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WHAT DOES YOUR WALK SHOW

IMPORTANT THINGS YOUR WALK MAY INDICATE



Your stride, gait, pace, and posture while walking can reveal surprising information about your overall health and well-being.

As physios we are aware what an underlying problem may be and here are a number of tip-offs to what might be happening.

Find out what the following walking patterns might say about your health.

1: WALKING VERY SLOWLY

May indicate : Shorter life expectancy

Walking speed is a reliable marker for longevity, according to a University of Pittsburgh Studies analyses. It's especially accurate for those over age 75.

The average speed was about two miles an hour.(3 feet per sec) Those who walked slower than 2 feet per second had an increased risk of dying. Those who walked faster than 3.3 feet per second (2.25 miles per hour) or faster survived longer than would be predicted simply by age or gender..



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Simply walking faster or farther doesn't make you healthier -- in fact, pushing it could make you vulnerable to injury. If it's slow, it's usually because of underlying health issues that are cutting longevity

2: REDUCED ARM SWING

May indicate : Lower back trouble

As the left leg comes forward, the spine goes into a right rotation and the right arm moves back. This coordination of the muscles on both sides is what gives support to the lower back. If someone is walking without much swing of the arms, it suggests that the spine isn't being supported as well as it could be by limitation in the back's mobility. Arm swing is a great indicator of how the back is functioning

3: ONE FOOT SLAPS THE GROUND

May indicate: Disc protrusion with nerve compression, possible past stroke.

Sometimes physios can hear you coming down the hall. A condition called Foot Drop is when your foot literally slaps the ground as you walk and is caused by muscle weakness of the anterior tibial muscle or the peroneal muscles.

A normal stride starts with a heel strike, then the foot slowly lowers to the ground, then it lifts from the toe and slings back to your heel. But with a drop foot gait, muscle control is lost and the foot can't return slowly to the ground. Instead, it slaps the ground.

This could be a sign of a past stroke or other neuromuscular event, or of compression of a nerve. A disc injury in the back is a common cause, since it can compress a nerve that travels down the leg. A rare cause of drop foot is simply crossing your legs if the common peroneal nerve is disrupted from the pressure.

4: A SHORT STRIDE

May indicate : Ankle, Knee or Hip degeneration and pain

When the heel hits the ground at the beginning of a stride, the knee should be almost straight. If it's not, that can indicate a range-of-motion problem in which something is impairing the ability of the knee joint to move appropriately.

A similar cause of a short stride is lacking extension, or good range of motion, in the hip. By taking shorter steps, the walker doesn't have to extend as far. Unfortunately that also puts more stress on your back. When the ankle, knee or hip joints are in pain, a shortened stride is often as a result of quickly getting off the weight bearing through those joints.

5: DROPPING THE PELVIS OR SHOULDER TO ONE SIDE

May indicate : A back or hip problem

Muscles called the abductors on the outside of the hips work to keep the pelvis level with each step we take. While we're lifting one leg and swinging it forward, and standing on the other, the abductors keep the body even -- unless those muscles aren't working properly.

The body then compensates. In a common walking pattern known as the Trelendenberg gait, as the heel strikes the ground on the unaffected side, the pelvis drops on that side to try to reduce the amount of force the muscle has to produce on the other side. Sometimes the compensating is so pronounced that the whole shoulder dips as well.

The ultimate cause of the weak abductors can be a back problem, a tear or weakness in the actual hip abductors or in response to pain from the tendon insertion and bursa on the outside of the hip.

6: BOWLEGGED OR KNOCK KNEED

May indicate : Knee arthritis

Many people with Knee osteoarthritis (OA), the wear-and-tear form of the disease associated with aging, have a slightly bowlegs or one or more knock knees. This can happen when the joint degenerates on one side of the knee more than the other and reduces the joint space on that side of the knee.

Rickets or genes can also produce a bow-legged walking style, but these causes are more commonly associated with kids than adults, Rheumatoid arthritis (RA), the kind that's an inflammatory disease, can also produce a knock-kneed walk

7: A SHORTENED STRIDE ON TURNS AND WHEN MANEUVERING AROUND THINGS

May indicate: Poor physical condition and impaired balance

Balance is a function of coordination between three systems: vision, the inner ear, and what's called proprioception which is the joints' ability to tell you their position. The joints can do this because of receptors in the connective tissue around them. But the quality of the receptors is related to how much motion the joint experiences. Use it or lose it. When you're active there may be more receptors in the connective tissue, so your proprioception is better and have better balance. If you have trouble balancing, you have a shorter stride, and it's especially noticeable on turns or when you're maneuvering around objects. You can also have trouble going up steps, which requires balancing on one foot for a longer amount of time.

However it is still better to use adaptive devices such as canes and walkers to continue to be active and safe rather than sedentary.

Balance problems can also be related to peripheral neuropathy, a kind of nerve damage caused by diabetes.

8: A FLAT STEP WITHOUT MUCH LIFT

May Indicate : Foot problems- bunions, over pronation, neuromas

Flat feet are obvious at a glance: There's almost no visible arch. But other conditions can also cause a flat walk. When the person takes a step, the foot flattens even as the heel is lifting off the ground, when it would normally be going into an arched position. The heel may also shift slightly to the inside when it comes up, and the toes may flex upward.

These kind of movements are attempts to create better stability where there isn't.

Painful bunions and neuromas (a nerve condition- pain or numbness into fore foot and toes) can develop in response to poor foot mechanics and the associated gait can be the cause or may actually develop in response to avoiding the pain. Here the stepping pattern changes in order to protect what hurts.

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9.: SHUFFLING

May indicate : Parkinson's disease

Shuffling -- bending forward and having difficulty lifting feet off the ground. It's a distinct gait that may indicate that someone has Parkinson's disease. The person's steps may also be short and hesitant. Along with tremors, it can be an early sign of the disease.

People with advanced dementia, such as is caused by Alzheimer's disease, may also shuffle as a result of cognitive trouble -- the brain and musculature don't communicate well. But by the time this happens, memory loss and problems with thinking skills are far more obvious.

10: WALKING ON TIPTOES, BOTH FEET

May indicate : Cerebral palsy or spinal cord trauma

Another distinctive gait owing to an underlying condition is toe-walking. The toe reaches the ground before the heel, instead of the other way around. It's related to overactive muscle tone, caused by stretch receptors that fire incorrectly in the brain. When persistent toe-walking happens on both sides, it can be due to damage high in the spinal column or brain, such as cerebral palsy or spinal cord trauma. Chronic calf tightness may also be the cause in milder cases.

Note: Sometimes toddlers walk on their toes as they are learning. If you're concerned, mention it to the child's doctor, who will assess for other signs

11: ONE FOOT WALKING ON TOES.

May indicate : Stroke or ankle pain.

When a person toe-walks only on one side, it can be an indicator of stroke, which usually damages one side of the body. When polio was prolific affected people often had one smaller extremity and one-sided toe-walking was more common. A painful achilles, heel spur or anterior ankle impingement can also cause the person to avoid putting their heel down due to discomfort

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12: A BOUNCING GAIT

May indicate : Unusually tight calf muscles

One unusual stride is a gait that causes the walker to literally bounce a bit. The heel-off happens too quickly, because of tight calf muscles. Women are the most vulnerable, because of chronic high heel use.

13.: ONE HIGHER ARCH AND/OR A PELVIS THAT DIPS SLIGHTLY

May Indicate: One leg is shorter than the other

Leg length discrepancy means that one leg is shorter than the other. This can be spotted in several ways. One is by looking at the foot while you take a step- one foot will have a higher arch and the other can look flatter. The flatter foot usually corresponds to the longer leg.

Also, because the shorter leg has to go a bit farther to get to the floor, the pelvis may drop down slightly in the stride. Changes to the lumbar spine -- a horizontal crease along the spine on the side with the longer leg can occur because the spine is bending in that direction with an associated spinal curve.

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(adapted from original article paula spencer-scott)



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HOW CAN PHYSIOTHERAPY HELP WITH GAIT

- Our Physiotherapists can analyse your gait to identify your problems and identify the areas that require improvement. We can watch, video and use treadmill analysis to further assess the contributing factors. Detailed examination of back, hips, knees, ankles and feet to further understand their role.
- Help you to understand why you have abnormal gait, how to improve it and provide treatment.
- Address the musculoskeletal and biomechanical factors that might be painful or limiting.
- Improve your strength.
- Improve your balance.
- Help you to be independent with your daily activities
- Reduce your risk of falling.
- Reduce your risk of injury.
- Help you to gain confidence.

OTHER RESOURCES

Knee pain is a common factor in altered walking style. As Physios, we provide extensive education as part of our management and prevention programs, but realize not everyone can find the time or have the confidence to make an appointment.

If you are interested in extensive tips , prevention and management of knee pain you can access our free E-book Resource just click this link.

You can call us on 83462000 at Hindmarsh and 83422233 for Fitzroy, Prospect or **CONTACT US ONLINE HERE** if you would like an appointment

We are passionate about providing our patients and community with information on prevention and management of many conditions. This PDF is not intended as a substitute for medical advice or treatment and should not be interpreted as such. Always seek advice from a qualified medical professional and use of this information is at your own risk