

Walking tall

Walking correctly is a complex move that makes use of muscles throughout our legs, emanating from our spine and even our feet. Charlotte Watts offers some tips on how to improve your gait

Walking is our main form of transport, yet many feel at odds with this most natural

of human movements. Our body and psyche evolved with our progression to full bipedalism—standing upright on two legs—to utilize the connection between our large front brains and dexterous hands.

The modern gym mentality where we live mostly sedentary lives and then suddenly shift to vigorous action jars with optimal body function; it's our nature to keep moving about ('spontaneous daily activity') throughout the day.

The lymphatic system does not have a pump like the circulatory system, and relies on walking for immune system regulation. The pelvis is designed to move in harmony with our chest and ribs; walking in an easy rhythm frees the diaphragm, encouraging slow breath patterns and preventing digestive and pelvic conditions.



Walking gait

There are many distinctions for what are referred to as 'abnormal gaits' such as waddling, high-stepping and the 'Charlie Chaplin', and these can be evaluated by an osteopath, physiotherapist or movement specialist, as there may be deeper structural issues. Outside of these deeper issues, there is the subtler approach of noticing our regular and habitual movement, and learning how unlocking patterns of tension can help us move freely and support internal actions such as the movement of the digestive tract, known as peristalsis.

Our natural gait is the walking motion we use instinctively. Unlike running, it always retains one foot on the ground. We spend about 80 per cent of the time we move on one leg, while during the other 20 per cent, both feet have ground contact. Each leg alternates between the Stance Phase, when the foot remains in contact with the ground, and the Swing Phase, when it does not.

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When walking gait is at its most fluid, it is efficient, and we barely notice the effort made. The involuntary movement from the fascial 'slings' that provide upward support—such as the insteps and pelvic floor—store and release kinetic (movement) energy that distributes any strain through the entire system. In a gait with tension or interruption, this strain manifests as loading on the joints and even inflammation or transferred pain.

Stance Phase

The Stance Phase of walking makes up about 60 per cent of the gait cycle. By breaking down the Stance Phase into separate events (see diagram, page 43), we can slow it down (such as in a walking meditation) to notice the unfolding of the motion and our tendencies and differences on each foot, to foster

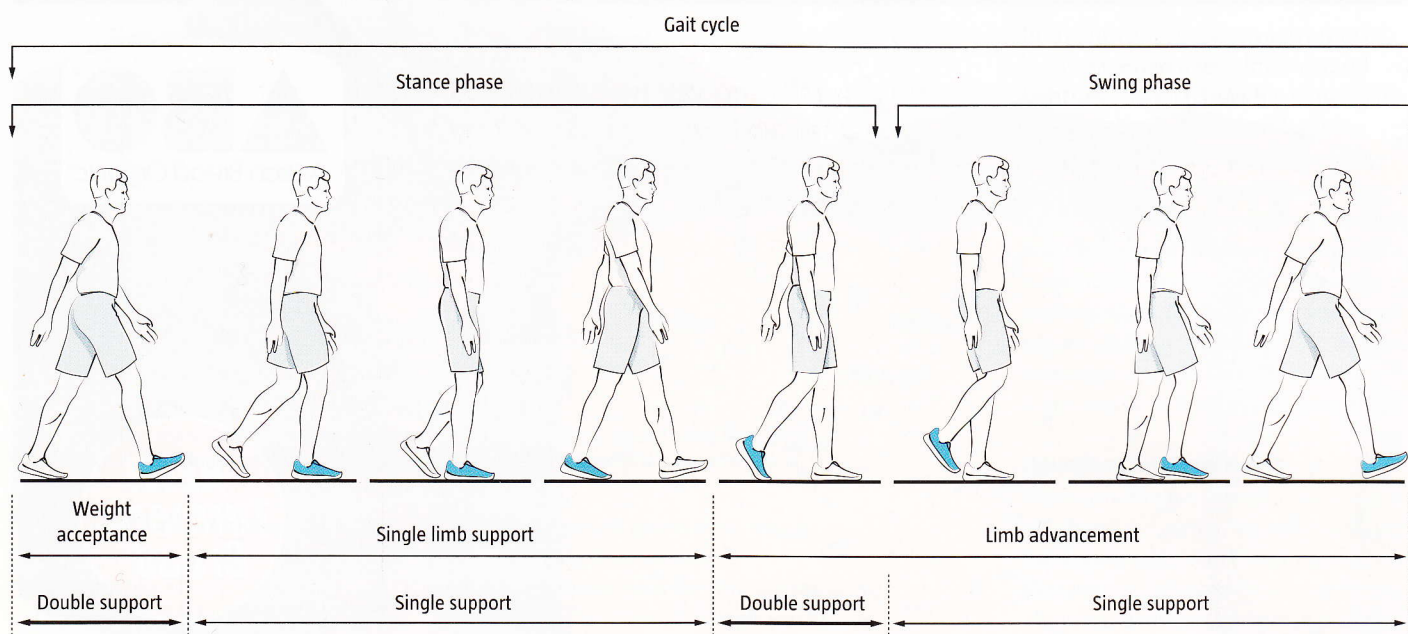
awareness of our gait and conscious range of motion in the feet:

- **Initial contact or heel strike:** ankle, knee and hip joints fold in response.
- **Loading response or foot flat:** moving onto the whole foot, we 'load', where the downward action gathers energy ready for forward propulsion; the weight is transferred onto that leg. A healthy instep allows for optimal weight bearing, shock-absorption and forward motion here.
- **Mid-stance:** alignment and balancing of body weight occurs.
- **Terminal stance or heel-off:** the heel lifts, whilst toes are still in contact with the ground.
- **Pre-swing or toe-off:** the toe of the reference foot rises and swings in the air. This marks the beginning of the swing phase of the gait cycle.

Swing Phase

This phase, occupying the remaining 40 per cent of the gait cycle, has just three stages, the initial, mid and terminal swing, where the free foot moves forward off the ground, ready to take the next step. An easy swinging motion here can determine the flow-through quality of the next step through the whole foot.





Breaking down the gait cycle: Walking gait involves the Stance Phase (60 per cent) and the Swing Phase (40 per cent). The Stance Phase includes initial contact (heel strike), loading response (foot flat), alignment, then the heel and toe lifting. The Swing Phase is when the free foot moves forward off the ground, ready to take the next step

Noticing patterns

After breaking down the gait, we need to integrate it, to feel our movement as a whole. Noticing such patterns can help us learn new ones. We can see in the diagram on page 45 that:

Normal gait moves the opposite arm and leg in tandem to provide swing for ease of movement.

Bound gait is held at the torso, meaning the legs need to drive the motion and there is less natural massage around the abdomen. This is possibly from a tight psoas muscle (see below) or diaphragmatic tightness, so may come with shallow breathing.

Held is similar to 'bound', but the torso restriction is governed more by pinning the arms to the body.

Anti-normal is where the same arm and leg move to take a stride, thus turning the whole body as one unit, rather than twisting across the torso.

From a biomechanical standpoint, the legs appear to drive the spine, but this comes from a general approach to the body as a mechanical object,

as if articulated like a doll. This may be true if we were a walking skeleton, but in reality, all body parts move together via the fascia (a web of connective tissue).

Newer approaches (such as The Alexander Technique and Primal Movement) have shown that the spine also drives the legs, and the spine moves in the same walking motion on the sitting bones as it does on the legs.

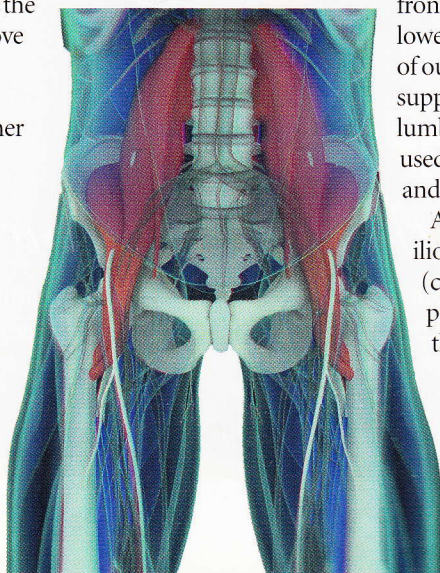
The sitting bones are the 'heels of the spine', and you can 'walk' on them, inching yourself forward around a room, to free up the walking motion through the spine.

Standing up from the ground

The psoas muscle allows us to stand upright and is located deep within the front hip joint and lower spine. It is part of our central body support, stabilizes the lumbar spine and is used in hip rotation and walking.

Also known as the iliopsoas complex (comprising the psoas major and the iliacus), it is

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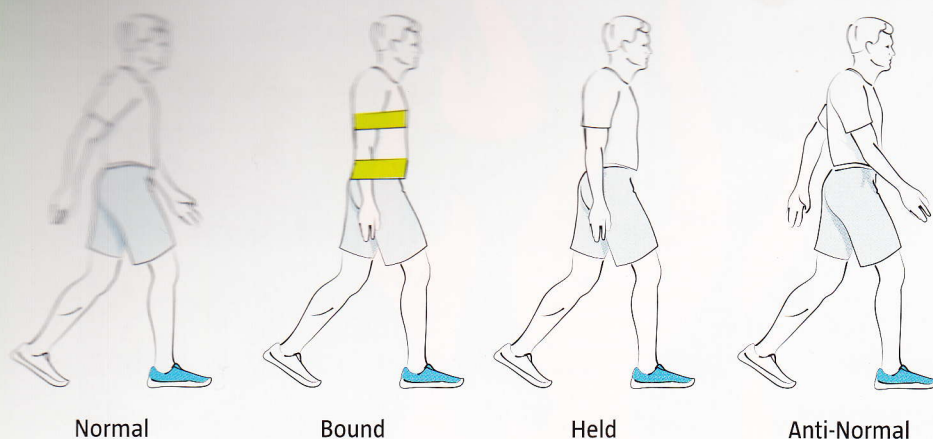


the only muscle to join the legs to the spine and works with the diaphragm like a hydraulic pump—particularly as we walk—to massage the viscera, stimulate the flow of fluids and allow the diaphragm to move to breathe fully. When it is tight, we can hunch over and pronate the feet; collapsing the insteps inwards in what is known as 'flat feet'.

The psoas is often referred to as our 'emotional muscle' as it is from here that we curl inwards for self-protection. When stressed, it contracts, and with habitual chair-sitting (which also flexes the legs towards the torso), it tends to be tight in modern humans. This affects walking greatly, as it is then difficult to stand fully upright, to swing the legs forward easily and feel a sense of 'bounce' in our stride.

Psoas release

Constructive Rest Position (CRP) allows the psoas muscle to fully release, particularly the psoas major—the main muscle of walking and where the body readily stores trauma. When the psoas is released, we feel that we can walk from further up into the spine, rather than driven from the fronts of the thighs. Adapted from Mabel Todd and Lulu Sweigard's somatic work in the 1930s, psoas release is now widely used as a 'reset'; returning the spine to its natural shape and the psoas to a neutral position.

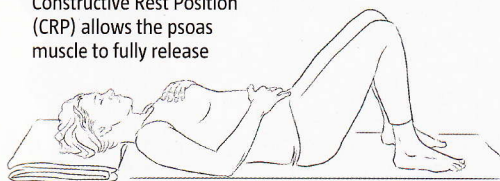


Watch your step: Normal gait moves the opposite arm and leg in tandem; bound gait is held at the torso; held gait involves pinning the arms to the body; anti-normal is where the same arm and leg move to take a stride

It is best held for 15 minutes, where we can tune into the breath or use a guided meditation like a body scan.

Laying with the skull supported so the head is not tipping back, place the feet far away enough from the bottom that you feel equal weight between the balls of the feet and heels; where the back and thighs don't need to engage to hold you in place. If you feel any pinching in the lower back, or the knees want to drop outwards, walk the feet out wider and turn the toes in to drop the thighs towards each other. Find the arm and hand placement that is most reassuring and softening (see below).

Constructive Rest Position (CRP) allows the psoas muscle to fully release



Foot health

We walk from our feet, and the mobility of their joints, fascia and muscles can determine how easily we move. Little natural walking, modern shoes (especially high heels) and man-made surfaces contort the foot's natural shape. Over time, the complex architecture of the feet can become hardened and rigid.

The ankle joint and transverse tarsal joint (just below the ankle, up into the foot above the back of the instep), are where most articulation ideally occurs, but this motion requires fluidity in the fascia all through the foot—every part affects every other. Ankles are designed to quickly absorb force as part of ground stability, then quickly shift and stabilize

weight for the next movement, which happens faster than thought.

We can support pliability throughout the ankle and foot that can ripple up into our walking gait in many ways:

Rotating the ankles fully, in one direction and then the other, regularly helps keep 'healthy slide-and-glide' throughout the foot architecture. You can do this while sitting at a desk, where taking shoes off as often as possible helps feet spread and breathe, particularly if sitting for long periods of time.

Pointing and flexing the feet (flexion draws the foot towards the shin) also helps us retain this other natural range of foot motion. Squeezing the toes together as we point encourages the opening of the top foot and flexibility of the skin there; those with trauma may feel tight across the top of the foot as a place that instantly tenses, ready to propel us forward in protective fight-or-flight mode; this area may need fascial release massage. Flexing

the foot, we can open out the toes for space between them that creates expanse in those areas where shoes can constrict.

Lying down with legs straight (feet about hip-width apart) and alternately pointing and flexing the feet—with little bending at the knee—creates an 'upslide-downslide' motion of the hips that replicates the pelvic motion of walking and awareness of how this can also create movement through the shoulders and neck (see diagram, page 43).

While standing, roll each foot on a spiky ball to feel the effects of how we rise up from the instep, through the inner legs to the psoas muscle (see below) and up through the spine. We may feel this fascial release as 'volume' up through the central

body and more freedom as we move.

Massage that frees adhesions and tightness in foot tissues has beneficial effects up through all the platforms we rely on to stand, up from the knees to the hips, shoulders and base of the skull. Tension lower down can translate into compensation above that creates disharmony in our gait. Simply self-massaging the feet can help, but fascial release, Rolfing or Structural Integration work may unravel deeper patterns ingrained in how we travel through life.

Unlock your natural swing

When we effortlessly walk and swing our arms with our stride, we are occupying the lines of our fascia that spiral within the torso and allow us to twist and turn. These meet the erector spinae muscles holding us up through the spine and the abdominal fascia drawing us up through the front body. This allows us to shift our posture, rotate and compensate for any weight changes continually, while lifting upright from the ground. When we walk, forces are transferred from one sacroiliac joint (where the lumbar spine meets the pelvis) to the other side, and if our spiral lines are free, this can feel less jarring in the lower back and digestive organs.

Swinging the arms (see diagram, page 43): allow the arms to swing around the midline of the body, feeling the movement come from the belly, so the hands feel like weights at the end of rope-like arms. Twist through the tissues of the torso and simply feel that motion, knees kept soft so that we are not pulling through them and still feeling our roots down to the feet.

Walk on uneven ground as often as possible; get out into nature or onto the grass in a park.

Wear a rucksack rather than shoulder bag to free the arms and how they can move evenly across the shoulders and back.

Resources

Earls J. *Born to Walk: Myofascial Efficiency and the Body in Movement* (Lotus Publishing 2014).

Guntner K. *Anatomy Trains in Motion: training manual* (2016).

Myers TW. *Anatomy Trains: Myofascial Meridians for Manual and Movement Therapists* (third edition, Churchill Livingstone, 2013).

Staugaard-Jones JA. *The Vital Psoas Muscle: Connecting Physical, Emotional, and Spiritual Well-Being* (Lotus Publishing 2012).