



# Confidential Report of Findings

## YOUR FEET VS. OPTIMAL FEET

The red on the colorized digital versions of your scan shows where the greatest amount of pressure is being exerted.

The balanced symmetrical foot pattern represents an optimal structural and functional presentation. Any variations from this pattern indicate functional deficiencies in the support structures of the feet that can be contributing factors to back pain and musculoskeletal pain, postural imbalances, injuries, and some arthritic conditions. Comparing your scan to a balanced, symmetrical foot scan is the best way to see if your feet could be a source of pain in other parts of the body.

**Optimal feet** provide a balanced foundation, which supports proper spinal alignment. A properly aligned body will have balanced symmetrical feet, level knees, pelvis and shoulders. 99% of people do NOT have optimal feet.

## YOUR SCAN RESULTS

Your exam identified that your feet are in the **SEVERE** range on the Pronation Stability Index™. **SEVERE** dysfunction is indicated when all three supporting arch structures have collapsed or have lost their ability to support the foot in a healthy position. When the lateral longitudinal, anterior transverse and medial longitudinal arch are all compromised there is severe foot dysfunction. The lateral arch is very important in that it bears the majority of the weight in the first half of the gait cycle. Loss of the transverse arch often results in callus formation in the forefoot and can lead to other foot problems including neuromas. Loss of the medial longitudinal arch results in a twisting motion in the lower leg, knee, hip and pelvis.

With **SEVERE** pronation, you can expect:

- Severe pain and discomfort
- Greatly reduced physical performance



**What is the Pronation Stability Index™?** The Pronation Stability Index is a proprietary algorithm that indicates the amount of arch collapse in your feet. The higher the number, the more collapse. The index reveals the severity of pronation/stability in your feet, ranging from Optimal to Severe. Untreated imbalances of any level may lead to chronic problems throughout your body.

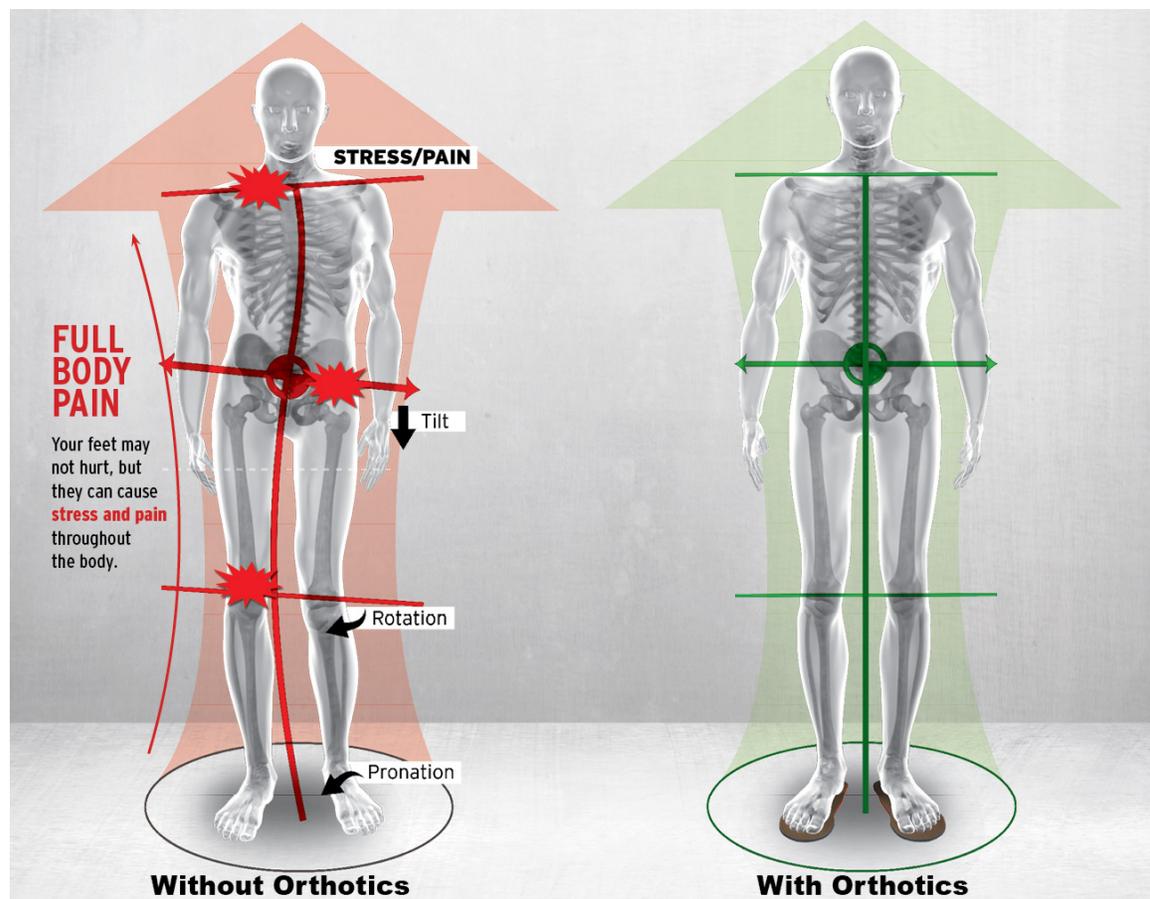
**What is excessive pronation?** A decrease in arch height that causes the foot to roll inward excessively while weight bearing. This motion is called pronation. This may cause the foot to flare out excessively.

**What causes excessive pronation?** This imbalance is caused by a loss of the structural integrity of the connective tissues in the feet, which will result in a collapse of one, two or all three of the arches. When all three arches collapse, this is commonly referred to as flat feet. Factors leading to this condition can include trauma, repetitive stress and congenital factors.

Research shows that fallen arches transmit stress into the ankles, knees, pelvis, and ultimately the spine. Degenerative changes and postural and muscular imbalances are common conditions associated with foot imbalances. While loss of arch height is permanent in nature and cannot be corrected, support with custom orthotics can help prevent further damage.

*REMEMBER, THE FEET ARE YOUR FOUNDATION,  
AND YOUR POSTURE IS BUILT ON THAT FOUNDATION.*

## POTENTIAL POSTURAL IMPACTS



A properly aligned body will have balanced, symmetrical feet, and level knees, pelvis and shoulders. Foot Levelers custom orthotics help alignment by correcting imbalances in the feet.

**Imbalances in your feet can potentially cause pain in other parts of the body.  
Here are some issues that can be the result of foot imbalances:**

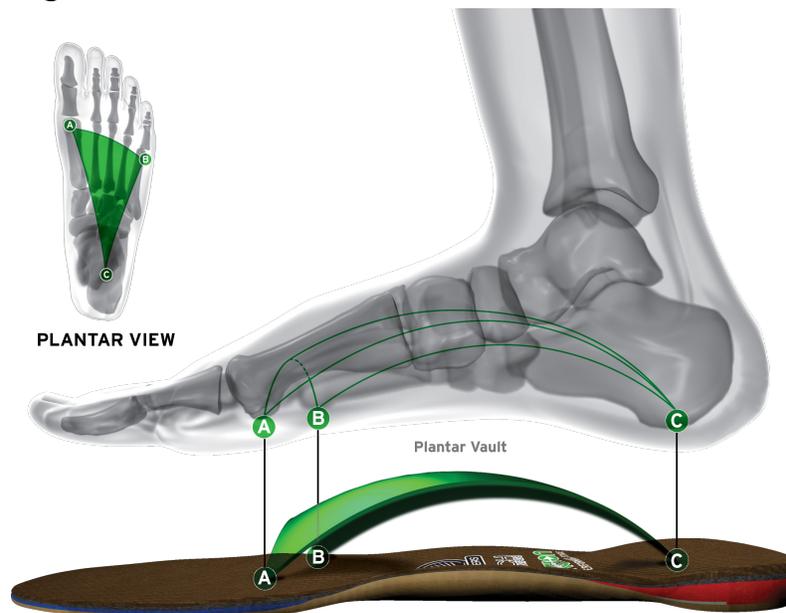
**Foot Dysfunction:** Can be indicated by asymmetrical foot flare or obvious signs of excessive pronation or supination. Poor support in the arches of the feet transmits stress through the knees, hips and pelvis and can be a contributing factor in many spinal conditions.

**Back Pain:** Can be caused by “imbalances” in your musculoskeletal system. For example, an abnormal gait (or walk) contributes to imbalances throughout your lower extremities. This includes your knees, ankles and feet, and can eventually cause pain throughout the body, most notably your lower back. If there isn't enough support from the feet, your spine could be exposed to additional stress.

**Hip Alignment:** When hips are not well aligned or poorly aligned, they are not on the same horizontal plane. This is also referred to as a “high” or “low” hip. This distortion is often associated with imbalances in the feet and knees and can lead to low back pain, arthritis and disc injuries.

**Internal Knee Rotation:** Results from low medial arches and creates stress on the medial knee. Knee rotation can be the result of one foot functioning flatter than the other one, causing one knee to be slightly twisted compared to the other. While it often causes no immediate pain, it makes the knee susceptible to injuries such as ACL strains and meniscus tears. It can also result in the development of degenerative arthritis.

**Forward Head Carriage:** Also known as anterior cervical translation, forward head carriage indicated when the center of the ear is in a position in front of the tip of the shoulder. This creates stress in the lower neck that can lead to disc degeneration, pain, numbness, and tingling.



### **Plantar Vault**

- A - C = Inner Arch (Medial Longitudinal Arch)
- B - C = Outer Arch (Lateral Longitudinal Arch)
- A - B = Across the Balls of Foot (Anterior Transverse [Metatarsal] Arch)



## FOOT CONDITIONS

SYMPTOM	CONDITION	EXPLANATION
Ball of Foot or Toe Pain	Morton's Neuroma	<ul style="list-style-type: none"> <li>• Morton's neuroma is an enlarged nerve that usually occurs in the ball of the foot in line with 2nd through 4th toes. The most common symptom of Morton's neuroma is localized pain.</li> <li>• Uneven weight distribution may create more pressure on one foot versus the other.</li> </ul>
	Hammer Toe	<ul style="list-style-type: none"> <li>• Presents most commonly as contraction of the middle joint of the second and/or third toe.</li> <li>• Tight shoes and tight foot muscles are the most common causes.</li> </ul>
	Bunion	<ul style="list-style-type: none"> <li>• Enlarged joint area at the base of the 1st and 5th toe.</li> <li>• Enlargement can result from swelling or new bone formation. Pain is not always present.</li> <li>• Uneven weight distribution may create more pressure on one foot versus the other and contribute to bunion formation.</li> </ul>
Arch Pain	Plantar Fasciitis	<ul style="list-style-type: none"> <li>• The plantar fascia is the flat band of tissue that connects your heel to your toes on the bottom of your foot. It helps to support the arches of your foot.</li> <li>• Straining the plantar fascia can cause weakness, swelling, and pain when standing and/or walking.</li> <li>• Uneven weight distribution may create more pressure on one foot versus the other and result in strain on the plantar fascia. If left untreated, it could lead to heel spurs.</li> </ul>
	Fallen Arches	<ul style="list-style-type: none"> <li>• The three arches of the feet are designed to absorb and distribute initial shock and weight associated with standing, walking, and running.</li> <li>• Acute trauma, repetitive strain, and genetics can result in fallen arches.</li> <li>• Uneven weight distribution may cause more pressure on one foot versus the other and result in strain on the supporting ligaments and arch collapse.</li> </ul>
Heel Pain	Heel Spurs	<ul style="list-style-type: none"> <li>• Abnormal bone growth that occurs on the bottom of the heel in response to pulling and strain of supportive tissue.</li> <li>• Pain that results from a heel spur is usually characterized as sharp and is concentrated on the heel or under the heel.</li> <li>• Uneven weight distribution may cause more pressure on one foot versus the other and result in strain where the soft tissue attaches to the heel.</li> </ul>

## LOWER EXTREMITY CONDITIONS

SYMPTOM	CONDITION	EXPLANATION
Lower Leg Pain	Ankle Sprain	<ul style="list-style-type: none"> <li>• Injury to the ankle from trauma or instability.</li> <li>• Presents with pain, swelling, decreased range of motion, and possibly bruising.</li> <li>• Uneven weight distribution may create more pressure on one foot versus the other and result in abnormal strain on the ankle joints.</li> </ul>
	Shin Splints	<ul style="list-style-type: none"> <li>• Occurs when muscles of the lower leg are overused during weight bearing activities.</li> <li>• Pain can be present on the inside or outside area of the lower leg, which is characterized as either sharp or aching.</li> <li>• Uneven weight distribution may create an imbalance in the lower extremities during activity and can result in abnormal strain on the muscles of the leg.</li> </ul>
	Leg Cramps	<ul style="list-style-type: none"> <li>• Sudden and uncontrollable contraction of the muscles resulting in pain.</li> <li>• Uneven weight distribution may create an imbalance in the lower extremities during activity and can result in abnormal strain on the muscles of the leg.</li> </ul>
Knee Pain	Sprain/Strain	<ul style="list-style-type: none"> <li>• Injury to the knee resulting from trauma or instability.</li> <li>• Presents with pain, swelling, decreased range of motion, and possibly bruising.</li> <li>• Uneven weight distribution may create an imbalance in the lower extremities during activity and places additional strain on the soft tissues and knee joint.</li> </ul>
	DJD (Osteoarthritis)	<ul style="list-style-type: none"> <li>• Degenerative changes that occur over time within the knee joint. Usually the result of damaged cartilage from acute injury or repetitive abnormal stress.</li> <li>• Presents with pain and stiffness, which is usually worse in the morning. Can be aggravated by activity.</li> <li>• Uneven weight distribution may create an imbalance in the lower extremities during activity and places additional strain on the soft tissues and knee joint.</li> </ul>

Hip Pain	DJD (Osteoarthritis)	<ul style="list-style-type: none"> <li>• Degenerative changes that occur over time within the hip joint. Usually the result of damaged cartilage from acute injury or repetitive abnormal stress.</li> <li>• Presents with pain and stiffness, which is usually worse in the morning. Can be aggravated by activity.</li> <li>• Uneven weight distribution may create an imbalance in the lower extremities during activity and places additional strain on the soft tissues and hip joint.</li> </ul>
	Sciatica	<ul style="list-style-type: none"> <li>• The sciatic nerve is a large nerve that originates from nerve roots in the lumbar spine and travels into the back of the leg. It is involved with muscle control and sensation to the leg.</li> <li>• Irritation of the sciatic nerve presents as pain, numbness or tingling into the buttocks and/or back of the leg. Can also result in weakness to muscles supplied by the nerve.</li> <li>• Uneven weight distribution may create an imbalance in the lower extremities during activity and places additional strain on the soft tissues and joints up through the spinal column. This can result in irritation of nerves.</li> </ul>