

Extreme Examination Makeover!

The Orthopedic and Neurological Reality Seminar

Based on: Practical Assessment of the Chiropractic Patient

Who is this guy

- 1987 Palmer Davenport
- 17 Years of Private Practice in KY
- DC, DABCO, FACO, CSCS, CCSP
- **NERD**
- Palmer Florida
- Cleveland



Who Graduated From...

- Palmer
 - Davenport
 - Florida
 - West
- Logan
- National
- Northwestern
- Life
 - Atlanta
 - West
- Parker
- NYCC
- Southern CA (LACC)
- Cleveland
 - KC
 - LA
- Sherman
- Texas
- Western States
- Bridgeport
- D'Youville
- CMCC
- Other
 - (More colleges outside US now than inside)

Be Honest

- Who is here because of the topic?
- Who came just to see me?
- Who could care less what I say as long as you get your hours?

House Keeping Issues

REMEMBER To !!!!!!!

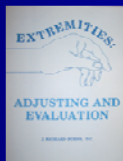
- Sign In (Scan In)
 - Then Stay in the Class
- Complete Your Paperwork
 - Registration
 - License Renewal
 - Seminar Evaluation
- Sign Out (Scan Out)

Back in the Day...

When the crust of the earth was still cooling

In Chiropractic College

- Extremity Adjusting was an Elective Course
- Everything Started in the Pelvis (Gonstead) or at the Atlas (Toggle)



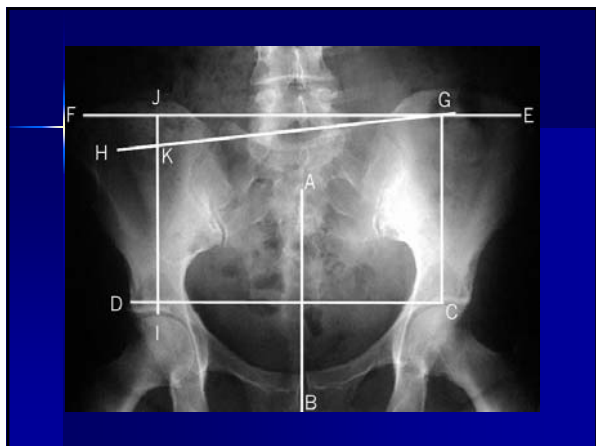
In my experience, even when the extremities were studied...

they were studied based on how the spine and pelvis effected the extremities. Minimal attention was given to the effects of the extremities on the pelvis and spine

Remember these?

Pelvic X-Ray-Line Drawing Analysis





Now think about this...

Case Study

Before Stabilisers After Stabilisers

NO heel lift was used!
Maximum correction 11.5mm.
Average correction 5mm (N=10)

Robert Kuhn DC, et. al. Radiographic Evaluation of the Effect of Orthotics on the Unlevel Pelvis
Accepted as a Poster Presentation 2003 ACC – RAC VII. New Orleans.

Global Postural Distortions

- Pronation & Medial Knee Rotation Resulting in a functional short leg and Pelvic Obliquity

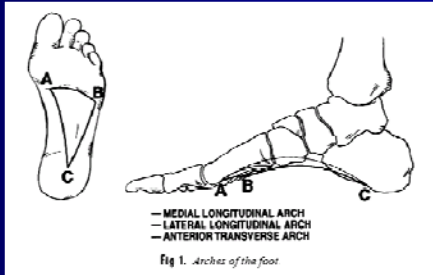


**So what is the point?
...The Foot Affects the Spine**

Start from the ground up!

**To Start from the Ground Up,
Let's Look at the Three Arches
of the Foot**

The 3 arches of the foot are supported by the plantar fascia and the bone-to-bone ligaments



Six Methods for Assessing the Arches, Lower Extremity and the Need for Spinal Pelvic Stabilization

Doctor Patient Relationship and Medical Necessity

- To establish a Doctor Patient Relationship and Establish Medical Necessity
 - You should use at least three of the following methods, History, Physical Exam and the Scanner/Mold
 - More is better

Method One
Patient History

Patient History

- Not Just Foot Complaints
- The Origin of the Term
 - "Spinal Pelvic Stabilizers"
- Foot, Knee, Hip, Pelvis and Lower Back

Method Two
The Five Red Flags of Pronation

The Five Red Flags of Pronation (Excess Pronation)

- Posterior Lateral Heel Wear
- Achilles Bowing
- Foot Flare
- Low Medial Arches
- Patellar Approximation

Millar 2002

Posterior Lateral Heel Wear

- Lateral Wear is Normal-Asymmetrical Lateral Wear Isn't
- Obvious During Leg Checks when shoes are Left On
- Or, During General Inspection



- Magee

Achilles Bowing

- Helbing's Sign
 - Bowed Achilles Tendons
 - Indicates foot pronation



- Evan's Text

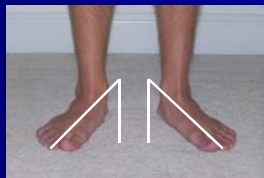
Also Noted During Assessment of Achilles Bowing:

- Too-Many-Toes Sign
 - Two and one-half toes viewed from behind is WNL
 - More than this indicates:
 - Pronation
 - Magee
- Photo=Four Left and Three Right



Foot Flare

- The foot normally has a 12-18° toe out position – The Fick Angle
- The line follows the plane of the second toe
 - Magee



Low Arches

- Decreased Medial Longitudinal Arches
 - Commonly terms – fallen arches
- Navicular Drop Test
 - Postural Stability Indicator (PSI Card)
 - Magee
 - Cook - Hegedus
 - FL



Patellar Approximation

- Associated with the Q-angle (Quadriceps angle)
- Lines from the ASIS to the center of the patella and from the tibial tubercle to the center of the patella
- 13-18° WNL (Men ↓ Women ↑)
 - Magee




Each of the Tests in Method Two can be Observed

Method Three

Global Postural Distortions

Global Postural Distortions


- Pronation & Medial Knee Rotation Resulting in a functional short leg and Pelvic Obliquity



+

Global Postural Distortions

- Pronation leading to:
 - Anterior Translation of the Pelvis
 - Thoracic Kyphosis
 - Anterior Head Translation



Again; The Origin of the Name

- "Spinal Pelvic Stabilizers" = SPS

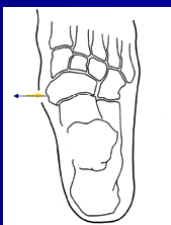
Method Four

Muscle Testing

Manual Muscle Testing *Medial Longitudinal Arch*



Psoas



Navicular

Manual Muscle Testing *Lateral Longitudinal Arch*



Gluteus Medius/Minimus



Cuboid

Manual Muscle Testing *Anterior Transverse Arch*



Quadriceps



Hamstrings



Metatarsal Head

Muscle Testing-Taping as an Indicator of SPS Need

- The muscle testing procedure can be performed using a taping procedure to assist in determining the need for SPS and for post application of the SPS
- Taping involves a Lowe-Dye procedure

Effectiveness of Low-Dye Taping for the Short-term Management of Plantar Fasciitis

Karl B. Landorf, DipAppSc(Pod), GradDipEd, PhD¹, Joel A. Radford, BAppSc(Pod)Hons², Anne-Maree Keenan, BAppSc(Pod), MAppSc³ and Anthony C. Redmond, DPodM, MSc, PhD

In the short term, low-Dye taping significantly reduces the pain associated with plantar fasciitis. These findings are the first quantitative results to demonstrate the significant therapeutic effect of this treatment modality in relieving the symptoms associated with plantar fasciitis. (J Am Podiatr Med Assoc 95(6): 525-530, 2005)



Muscle Testing

- Test the muscle with the patient recumbent
- Adjust the appropriate area(s)
- Retest the muscle with the patient recumbent
- Have the patient walk for a few moments without Tape/SPS
- Retest the muscle with the patient recumbent

Muscle Testing

- Adjust the appropriate area(s)
- Retest the muscle with the patient recumbent
- Have the patient for a few moments with tape/SPS
- Retest the muscle with the patient recumbent

Method Five

The Associate Platinum Digital Scanner

The Associate Platinum Digital Scanner

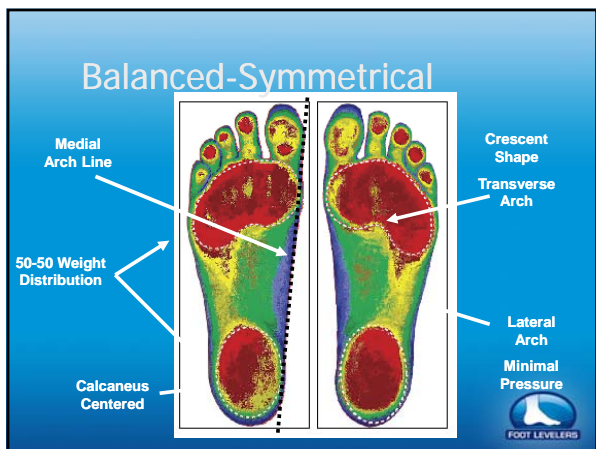


Scanning the Feet

- The scanner uses blanching patterns of the foot in a weight bearing position
- The blanched pattern is used to take the same measurements FL has always used in orthotic prescription
- The color patterns are primarily for educational and documentation purposes

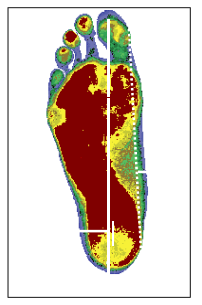









Pronated



- Line from great toe falls lateral to midline of calcaneus
- Medial arch migrates medially
- Typically more flexible

Pronation



Supinated

- Line from great toe to calcaneus falls medial of centerline
- Indicates rigid – angular foot
- Deep curvature of medial arch



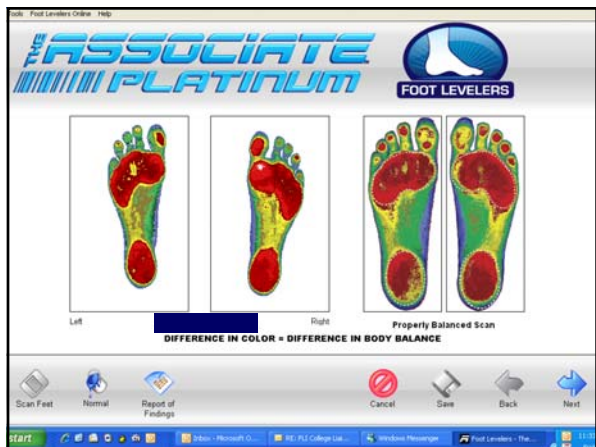
Supination

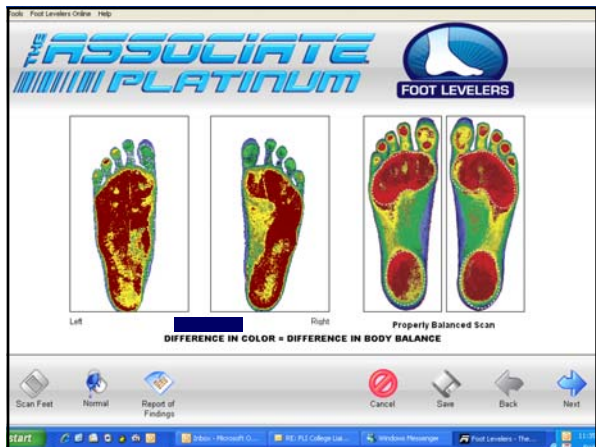


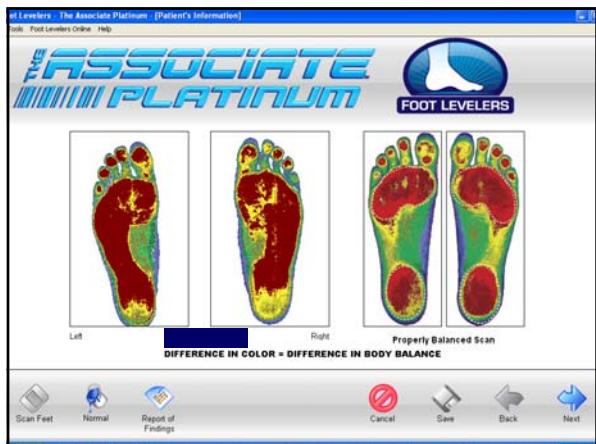
Scan Interpretation

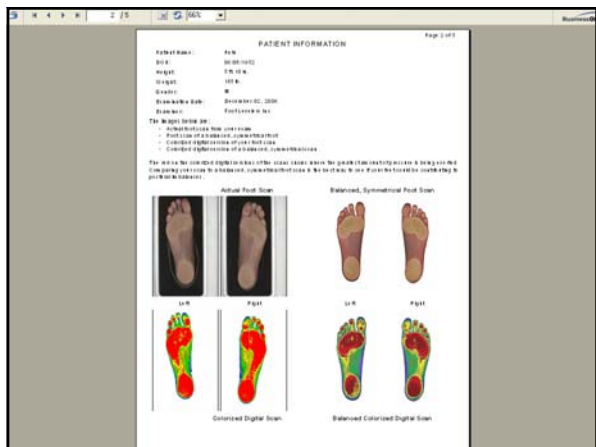












ROF Two Major Questions

- Do your feet look like the feet that are considered normal?
- Do your feet look the same on both sides?
