

In 1988, I published a paper in the Journal of Manipulative and Physiological Therapeutics in which I linked foot twist (pronation) to torsional changes within the knees and pelvis. This study was based on 97 chronic pain patients in whom I correlated oblique patella (knee) tracking patterns and dysfunctional positioning of the pelvis to foot twist.

In 1994 and 1995 I published two papers in the American Journal of Pain Management in which I linked a distortion in posture (referred to as BioImplosion) to foot twist. The results of these two clinical studies, which involved nearly 300 patients, also supported my theory that poor posture was one of the major causes in the development of chronic knee pain (1994) and chronic low back pain (1995). (Foot twist leads to poor posture, poor posture leads to chronic pain in the knees and low back)

However, the cause of foot twist still remained a mystery until 2002, when I published a paper in the Journal of Bodywork and Movement Therapies in which I described two previously unknown embryological foot structures that resulted in foot twist: the Rothbarts Foot and the PreClinical Clubfoot Deformity.

Since 2002, I have been classifying the various postural distortional patterns that can result from either the Rothbarts Foot or the PreClinical Clubfoot Deformity. Four distinct patterns became apparent:

1. Flatback Postural Pattern
2. Kyphotic Postural Pattern
3. Lordotic Postural Pattern
4. Swayback Postural Pattern

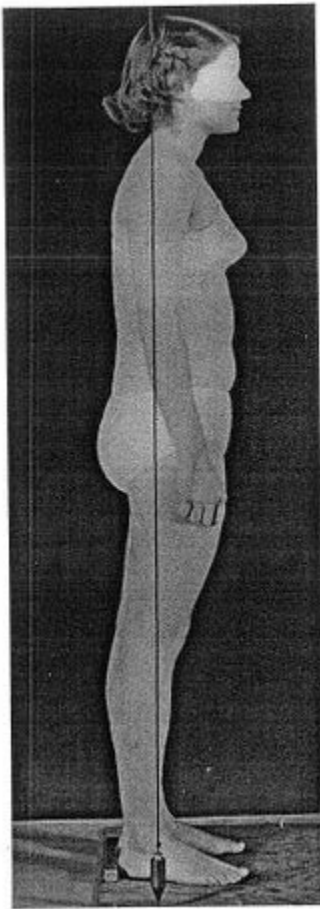
Interesting enough, the Kyphotic Posture is most frequently seen in patients with the Rothbarts Foot. Whereas the Flatback, Lordotic and Swayback Postures are more frequently seen in patients with the PreClinical Clubfoot Deformity.

The classification of these four postural distortional patterns are based on the:

- Position of the innominates on the sagittal plane,
- Curves in the lower and upper back
- Position of the head relative to the cervical spine

Below is a brief description of each of the four postural distortional patterns *and* the Normal or Ideal Pattern.

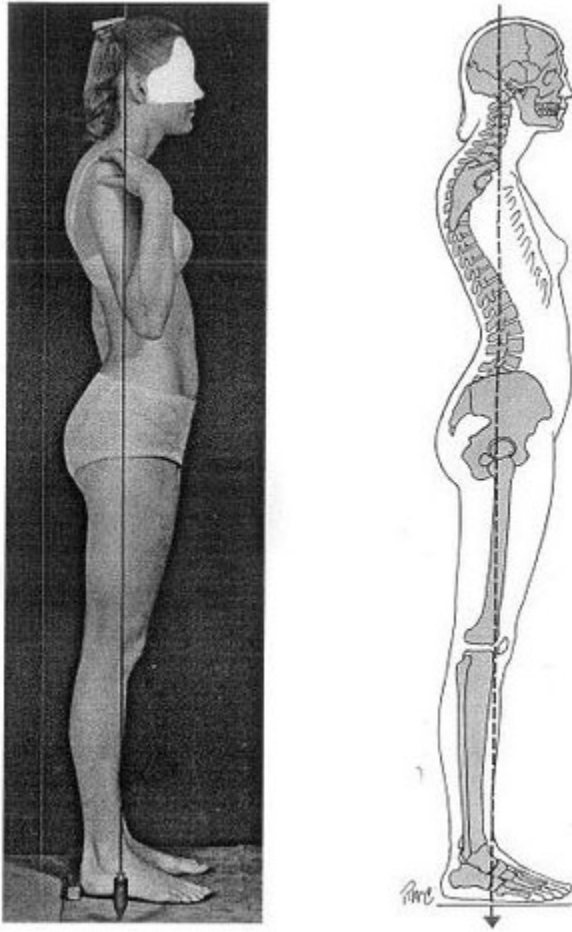
(1) - Flatback Postural Pattern



Flatback Postural Pattern is Characterized by:

- *Posteriorly* positioned innominates
- Decrease in the sacral (lower back) curve
- *Slight* Increase in the thoracic (upper back) curve (convex backwards)
- Forward head position

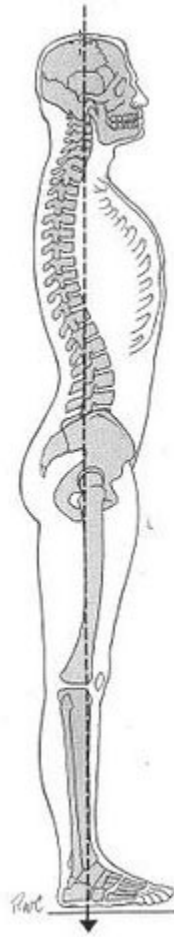
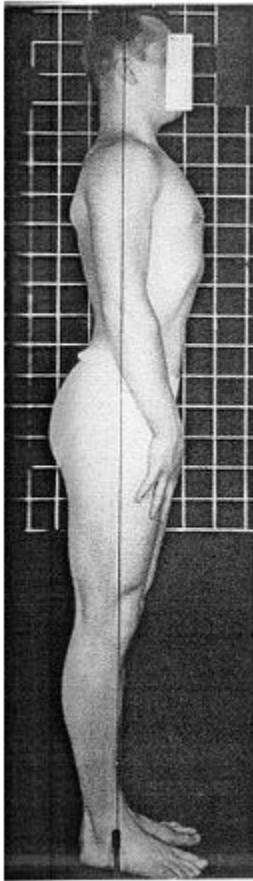
(2) - Kyphotic Postural Pattern



Kyphotic Postural Pattern is Characterized by:

- *Anteriorly* positioned innominates
- Increase in the sacral (lower back) curve (convex forwards)
- Increase in the thoracic (upper back) curve (convex backwards)
- Forward head position

(3) - Lordotic Postural Pattern



Lordotic Postural Pattern is Characterized by:

- *Anteriorly* positioned innominates
- Increase in the sacral (lower back) curve (convex forward)
- Normal thoracic (upper back) curve
- Head in neutral position (auricle over outer ankle bone)

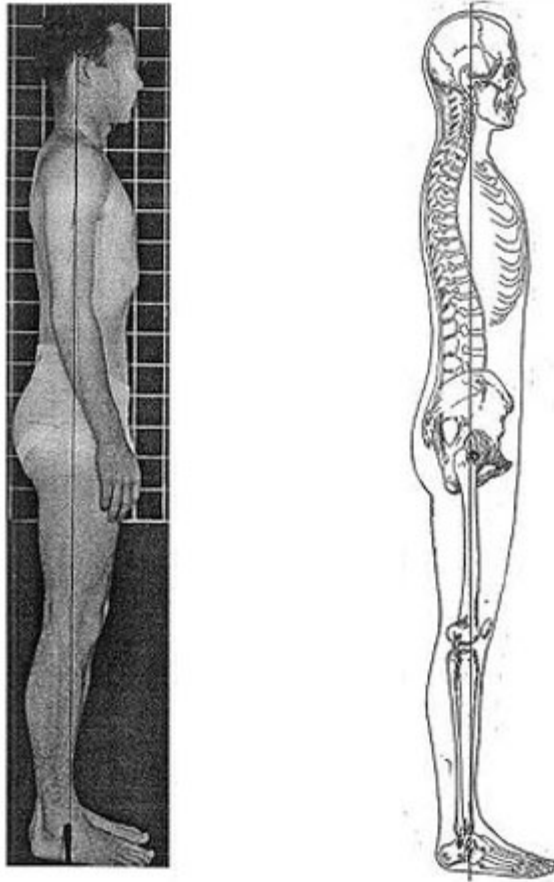
(4) - Swayback Postural Pattern



Swayback Postural Pattern is Characterized by:

- *Posteriorly* positioned innominates
- Decrease in the sacral (lower back) curve (flatten)
- Increase in the thoracic (upper back) curve (convex backwards)
- Head forward position

The Ideal (Normal) Postural Pattern



Ideal Posture

Ideal Postural Pattern is Characterized by:

- Innominates in *neutral* position
- Normal sacral (lower back) curve (slight convex forward)
- Normal thoracic (upper back) curve (slight convex backward)
- Head in neutral position (auricle over outer ankle bone)

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Developer of Rothbart Proprioceptive Therapy

Designer of Rothbart Proprioceptive Insoles

Founder of International Academy of Rothbart Proprioceptive Therapy

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A special thanks to Natalie and Philip Cordova for granting me permission to use the above photographs that were published in their e-book: *Posture Confidence*. Their e-book contains a wealth of information on postural exercises; highly recommended.