

# POSTURAL RESTORATION INSTITUTE®

## What is Posture?

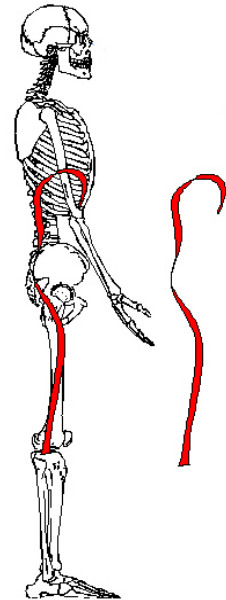
- Posture is a reflection of the “position” of many systems that are regulated, determined and created through limited functional patterns.
- These patterns reflect our ability and inability to breathe, rotate, and rest, symmetrically with the left and right hemispheres of our axial structure.

– Ron Hruska, MPA, PT

## Polyarticluar Muscle Chains

### *Anterior Interior Chain (AIC)*

- There are two anterior interior polyarticluar muscular chains that have a significant influence on respiration, rotation of the trunk, rib cage, spine and lower extremities.
- Composed of muscles that attach to the costal cartilage and bone of rib 7-12 to the lateral patella, head of the fibula and lateral condyle of the tibia.
- One is on the left side of the interior thoraco-abdominal-pelvic cavity and one is on the right
- Muscles include the diaphragm and the psoas.
- This chain provides the support and anchor for abdominal counter force, trunk rotation and flexion movement.



### *Brachial Chain (BC)*

- There are two brachial polyarticluar muscular chains lying over the anterior pleural and cervical area.
- These chains influence cervical rotation, shoulder dynamics and apical inspirational expansion.
- Composed of muscle that attach to the costal cartilage and bone of ribs 4-7 and xiphoid to the posterior, inferior occipital bone, anterior, inferior mandible and coracoid process of scapula.
- They provide the support and anchor for cervical-cranial orientation and rotation and rib position.



## Visible Signs of Dysfunction as Related to Left AIC/Right BC Pattern

1. One or both legs turn out when sitting, standing or lying
2. Overdevelopment of compensatory muscles
3. Favorable standing position is on the right leg while rotation their upper body to the left
4. Walk with little or no arm swing on the right
5. Elevated anterior ribs on the left
6. Lowered, depressed shoulder and chest on the right
7. Asymmetry of the head and face
8. Curvature of the spine

## Objective Findings for Left AIC/Right BC Pattern

1. *Inability to adduct left femur*



2. *Inability to extend the left hip*



3. *Limited trunk rotation to the right*



4. *Limited humeral-glenoid internal rotation on the right*



5. *Limited horizontal abduction on the left*



6. *Asymmetrical femoral-acetabular rotation*



7. *Excessive or limited straight leg raise*



8. *Inability to touch your toes*



9. *Inability to fully squat*



## **Clinical Assessment**

- The left pelvis is anteriorly tipped and forwardly rotated.
- The forwardly rotated left innominate causes the lower spine to orient to the right with the upper spine to the left.
- This directional, rotational influence on the low back and spine to the right, mandates compulsive compensatory movement in one or more areas of the trunk, upper extremities and cervical-cranial-mandibular muscle.
- The greatest impact is on rib alignment and position, therefore influencing breathing patterns and ability.

## Postural Restoration Institute® Treatment Approach

**Restore** pelvic position and muscular balance



**Restore** apical chest wall expansion



**Restore** diaphragmatic breathing



**Restore** abdominal opposition to diaphragm



**Restore** chest wall flexibility

