

Postural Integrity

Presented by Helen Vanderburg

Introduction

Postural integrity has a direct impact on movement quality, efficiency, and load distribution. The ability to maintain correct alignment in movement allows for relaxation, freedom of motion, elastic energy production, and stability in sport, fitness, and life. Learn a series of dynamic postural assessment exercises and apply them to exercise design. This practical postural session focuses on torso and joint stability training. Participants will be taken through bodyweight strength and stability exercises that easy to implement in any training environment and leads to enhanced performance.

Gravity!

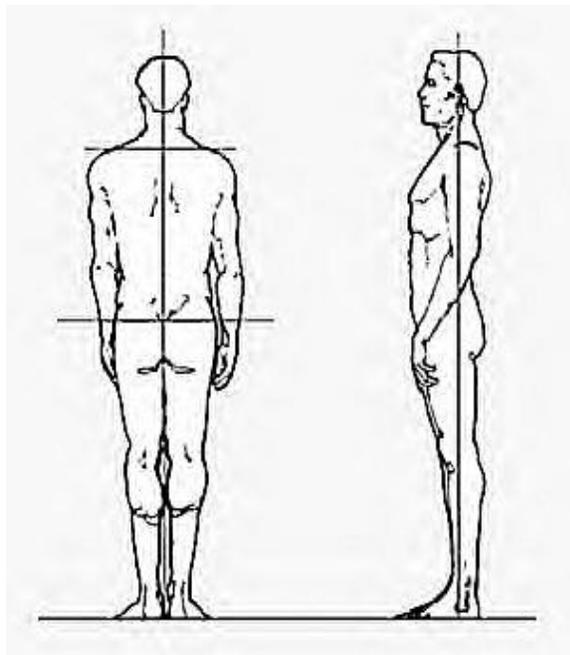
The one consistent force on the body.

The human frame should be held and moved around this force effectively.

When considering alignment, we need to consider the position and force of gravity

The Human Structure

Posture and Alignment



When the body is aligned there is the least amount of stress on the joints, surrounds connective tissues and muscles.

VANDERBURG *helena*

Posture: the position of the body

Alignment: the position of the body parts in relationship to each other

Good posture: when the body is aligned in relationship to gravity for optimal function

Observe Posture and Alignment

- Symmetry/ asymmetry
- Alignment of the joints in relationship to each other

Compensation

Occurs when the human structure, the forces of gravity and external load are placed in a compromised positions that requires adaptation.

Newton's 3rd Law.

For every action there is an equal or opposite reaction

Common Postural Deviations

1. The Spine
 - Lordosis
 - Kyphosis
 - Scoliosis
2. The Pelvis
 - Anterior Tilt
 - Posterior Tilt
 - Tilt
 - Rotation
3. The Leg
 - Medial femoral rotation
 - Lateral femoral rotation
 - Genu Valgum (knock knees)
 - Genu Varum (bowlegs)
4. Shoulder Girdle
 - Winging scapula
 - Elevation scapula
 - Rounded shoulders

Reciprocal Inhibition

Upper Crossed Syndrome

Lower Crossed Syndrome
(Based on the work on Vladmir Janda)

Alignment Observations in Motion

Exercise	Ankle	Knee	Hip	Spine	Head
Hip Hinge					
Squat					
Lunge - Low lunge - High lunge					
Step					

Exercise	Arms	Shoulders	Spine	Pelvis	Head
Quadruped					
Plank					
Push-up					

Exercise	Pelvis	Lumbar	Thoracic	Cervical	head
Spine Flexion					
Spine Extension					
Lateral Flexion					
Rotation					