

## Session # 236

# Primal Pattern<sup>®</sup> Movement System

Presented by Tomi Toles, CHEK Faculty

### What is Required of an Exercise, or Exercise Program as a Prerequisite to Improve Function?

1. The ability to maintain one's center of gravity over one's own base of support.
  - ✓ As conditioning improves, the athlete should be able to maintain their center of gravity over progressively less base of support.
2. Maintain and improve flexibility.
3. Improve inter-muscular coordination.
4. Improve general and/or sport specific motor skills.
5. Improve biomotor abilities as dictated by program goals and needs analysis.

### Generalized Motor Programs

A generalized motor program is thought to exist for movements that seem to vary along one or more well-defined dimensions.

- E.g. all kicking movements could have a single generalized motor program
- Movements within a class have the same relative timing

### Primal Pattern<sup>®</sup> Movements

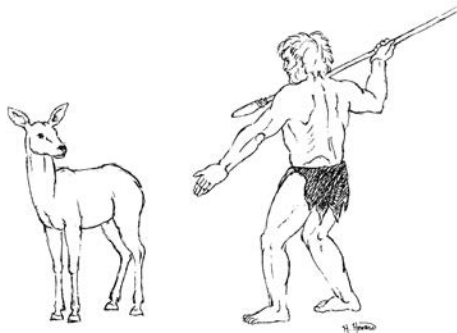
Definition: A movement pattern required for survival in our developmental environment. They are sometimes referred to as a "root pattern."

The Primal Pattern<sup>®</sup> Movement system was developed by Paul Chek by combining the research in the fields of motor control and motor learning with his own clinical experience working with all types of clients from rehabilitation patients through to elite athletes.

There are seven Primal Pattern<sup>®</sup> Movements:

1. Gait (walk, jog, run) (see Session # 488 – *Walking Tall* on Friday)

2. Twist



3. Pull



4. Lunge



5. Bend



6. Squat



7. Push



## Primal Standard

Definition: Being able to perform the Primal Pattern® Movement with your own body weight

### Using Primal Standard Movements as Assessments

**Squat** e.g. Body weight squat

What to look for:

- Medial rotational instability
- Inner unit activation (or lack of)
- Timing of breathing
- Muscle imbalances
- ?



**Lunge** e.g. Multi-directional lunge

What to look for:

- Medial rotational instability
- Inner unit activation (or lack of)
- Differences in directional ability
- Muscle imbalances
- ?

**Bend** e.g. Forward Bend Test

What to look for:

- Inner unit activation (or lack of)
- Sequencing of bend
- ?



**Push** e.g. Standing Push Test or Push-up test

What to look for:

- Spinal instability
- Shoulder girdle instability
- Inner unit activation (or lack of)
- Inner unit / outer unit integration and threshold of activation
- Postural awareness
- Muscle imbalances
- ?



**Pull** e.g. Standing Pull Test

What to look for:

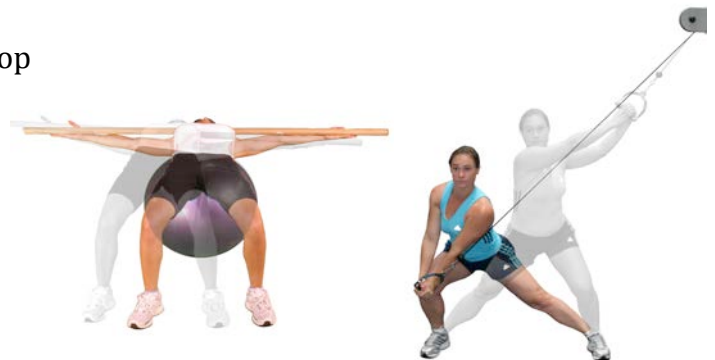
- Spinal instability
- Shoulder girdle instability
- Inner unit activation (or lack of)
- Inner unit / outer unit integration and threshold of activation
- Postural awareness
- Muscle imbalances
- Sequencing of movements
- ?



**Twist** e.g. Supine Lateral Ball Roll or WoodChop

What to look for:

- Inner unit activation (or lack of)
- Inner unit / outer unit integration and threshold of activation
- Muscle imbalances
- Sequencing of movements
- ?



### Descending Primal Pattern® Movements

- Decrease exercise complexity to meet athletes' current neuromuscular status.
- Increase base of support, allowing more focus on learning and less focus on survival.
- Fewer planes of motion and biomotor abilities used.

THIRD DESCENT	SECOND DESCENT	FIRST DESCENT	PRIMAL PATTERN®
Swiss ball on wall squat	2 hands on dowel	Squat - hand holding dowel	<b>SQUAT</b>
Smith Machine lunge	Lunge with 2 arm support	Lunge with pole - single arm hold	<b>LUNGE</b>
Bend from seated	Bend from knees	Support by spotter	<b>BEND</b>



### Ascending Primal Pattern® Movements

- Increase exercise complexity.
- Decrease of support to challenge the neuromuscular system.
- More planes of motion and biomotor abilities used.

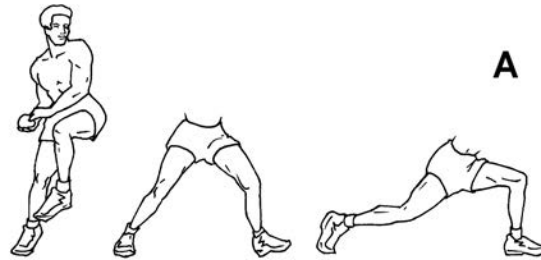
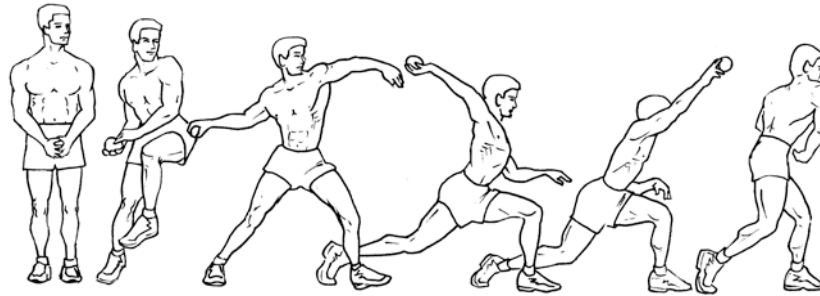
PRIMAL PATTERN®	FIRST ASCENT	SECOND ASCENT	THIRD ASCENT
<b>SQUAT</b>	1 leg squat	Balance board squat	Squat on Swiss Ball
<b>LUNGE</b>	Walking lunge	Jumping lunge	Wobble board lunge
<b>BEND</b>	Bend one leg	Bend on move	Bend and generate/ receive force



### Biomechanical Analysis and Exercise Selection

Select the optimal Primal Pattern® Movements for both general and sport specific motor development.

e.g. a pitcher's throw is a combination of a lunge (A), a twist (B), and a push (C).



**Key References:**

1. Chek, Paul. *Primal Pattern® Movements, (Correspondence Course)*. Vista, CA: A C.H.E.K Institute Publication, 1999-2011.
2. Chek, Paul. *How to Eat, Move and Be Healthy!* Vista, CA: A C.H.E.K Institute Publication 2004.
3. Schmidt, Richard A. *Motor Learning and Performance, 4<sup>th</sup> Ed.* Human Kinetics, 2007.
4. Bompa, T. O. *Theory and Methodology of Strength Training*. Kendall/Hunt Publishing, 1988.



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