

Session # 3002

Does that “Functional” Exercise Improve Function?

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Learning Objectives

1. Understand the principles of functional exercise and what it takes to truly improve function
2. Become better able to select exercises based on the science of human movement, not marketing and magazine driven fads!
3. Realize that *functional exercise* is MORE effective at *naturally* improving aesthetics than modern isolation training

Is FUNCTIONAL an overused buzz word today?

What does “functional” really mean?

What truly makes an exercise “functional”?

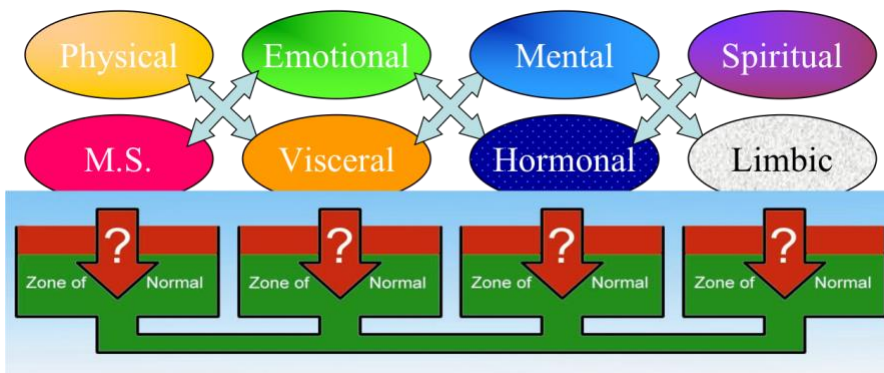
The Conditioned Response - Are we programmed by the media, society etc to expect a certain result or respond in a certain way?

Functional exercise should improve function!

What is “Function”

1. Health!
2. Internal Physiology
 - a. Digestive Function
 - b. Elimination/Detoxification
 - c. Respiration
 - d. Hormonal Balance
3. Psychology
4. Musculoskeletal Health - Optimize muscle balance and joint function
5. Aesthetics (best achieved secondary to function)

P-E-M-S Psychophysiology



The CHEK Approach to Improving Function

1. Improve posture and muscle balance – flexibility
2. Regain stability – static and dynamic
3. Increase strength
4. Address power needs

BREAK THE FORMULA – BREAK THE CLIENT!

1. Improve Posture and Muscle Balance / Flexibility

What is optimal posture?

- “The position from which the musculoskeletal system functions most efficiently”
- Posture may be defined as “the position from which movement begins and ends”

What is dynamic posture?

- The ability to maintain the optimal instantaneous axis of rotation in any/all working joints in any time/space combination.
 - Optimal Axis Of Rotation:
 - Concentric Rotation = joint health
 - Eccentric Rotation = loss of O.I.A.R. and progressive joint derangement!

Postural responses – Centrally generated motor patterns

- Extremity loads must be stabilized and controlled by the core
- Extrinsic Loads
- Intrinsic Loads

Flexibility

Flexibility must be improved to optimal levels and then maintained

- What is “optimal” for each client?
- How do we determine this?
 - Orthopedic health must be considered
 - Joint health?
 - Muscle balance?
 - ***Stop guessing and start assessing!***
 - Length/tension assessment is a must for optimal stretching program development!
 - Inherent or systemic flexibility
 - 9 Point Flexibility Index (Ref. Rocabado)
- Work or sports demands must be considered

2. Regain Stability – Static and Dynamic

The foundation of function is **functional stability**. When selecting exercises for your clients, consider the requirements of their work, sports or activities of daily living and relate to the following:

- Improve static and dynamic stability
- Varied base of support
- Multiple biomotor abilities
- Reflex profiles

Base of Support

- To improve ones ability to reduce ones base of support during functional activities, training must incorporate exercises with reduced base of support.
- As conditioning improves, athletes should be able to maintain their center of gravity over progressively less base of support.

Improve intramuscular coordination

Biomotor abilities

- Consider needs vs current ability
 - Functional exercises will always address and improve more biomotor abilities than non-functional exercises!
1. Strength
 2. Power
 3. Endurance
 4. Speed
 5. Coordination
 6. Flexibility
 7. Agility
 8. Balance

Improve general and/or sports-specific motor skills

Training methods should develop associated reflexes

- **Righting reflexes** are activated when you move across a stable surface. This class of reflex can be trained by any exercise performed on a stable surface, for example balancing on one leg.

- **Tilting reflexes** are activated when you move across an unstable surface, such as stepping onto a moving conveyor belt at the airport. Exercises performed on a surface that moves out from underneath you will train tilting reflexes.

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

- For example, there could be a single generalized motor program for all kicking movements
- Relative Timing - Movements within a class have the same relative timing (Ref. Richard Schmidt)

How does this influence our selection of exercises?

Selecting the optimal exercises or movement patterns for your general and sport specific motor development requires a simple assessment of biomechanic needs. Consider:

- Relative timing of movement class
- Movement speed
- Amplitude
- Exercises used in training

3. Increase Strength (and #4 – Power) using Primal Pattern® Movements

- Gait
- Push
- Pull
- Lunge
- Bend
- Squat
- Twist

Descending Primal Pattern® Exercises

Ascending Primal Pattern Exercises

3 rd Descent	2 nd Descent	1 st Descent	Primal Pattern®	1 st Ascent	2 nd Ascent	3 rd Ascent
Swiss ball on wall squat			SQUAT	1 leg squat		
		Lunge with pole – single arm support	LUNGE		Jumping lunge	
	Bend from knees		BEND			Bend and generate / receive force

Benefits of Primal Pattern® Training

- Development of biomechanically sound general motor patterns
- Automation of primal patterns and general motor skills:
 - Prevention of orthopedic injury through improved static and dynamic postural engram programming

- Decreased righting and tilting reflex time:
 - Janda states that reducing reflex time by 50% could eliminate 80% of all orthopedic injuries!
- Cognitive freedom:
 - The mind is free to monitor the game and competitors when not focusing on movement
- Increased neuromuscular reserve benefits:
 - Ability to maintain center of gravity over reduced base of support = improved sports performance
- Increased neuromuscular reserve benefits:
 - Multi-joint Primal Pattern exercises result in greater central nervous system fatigue than isolation and/or machine exercises, providing often needed nervous system conditioning!
 - Less chance of injury late in game from poor motor control.

Conclusion

All functional exercises should:

- Improve health!
- Improve P-E-M-S psychophysical relationships
- Improve flexibility and muscle balance
- Improve static and dynamic posture
- Improve ability to maintain ones center of gravity over a reduced base of support
- Develop sound general motor skills
- Progress Primal Pattern® movements to automaticity, freeing the cognitive mind
- Increase neuromuscular reserve
- Prevent injury through prophylactic conditioning
- Be appropriate for the work, sports or activities of daily living needs of the client

C.H.E.K Institute Resources

1. Chek, P. *Primal Pattern® Movements: A Neurodevelopmental Approach to Conditioning*, (Correspondence Course). CHEK Institute, 2003 - 2007.
2. Chek, P. *Advanced Program Design*, (Correspondence Course). CHEK Institute, 1999-2008.
3. Chek, P. *How to Eat, Move and Be Healthy!* 2nd edition. CHEK Institute, 2018.
4. Chek, P. *Movement That Matters: A Practical Approach to Developing Optimal Functional Movement Skills*. CHEK Institute, 1999.
- 5.

For a complete list of references, please e-mail the CHEK Institute.



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