



EvolutionPHYSIOTHERAPY

BUILDING ATHLETE PERFORMANCE IMPROVEMENT TEAMS

Allen Hicks, BA(Hon)PE, BScPT, FCAMPT, CSCS

Registered Physiotherapist, Kinesiologist, Personal Trainer

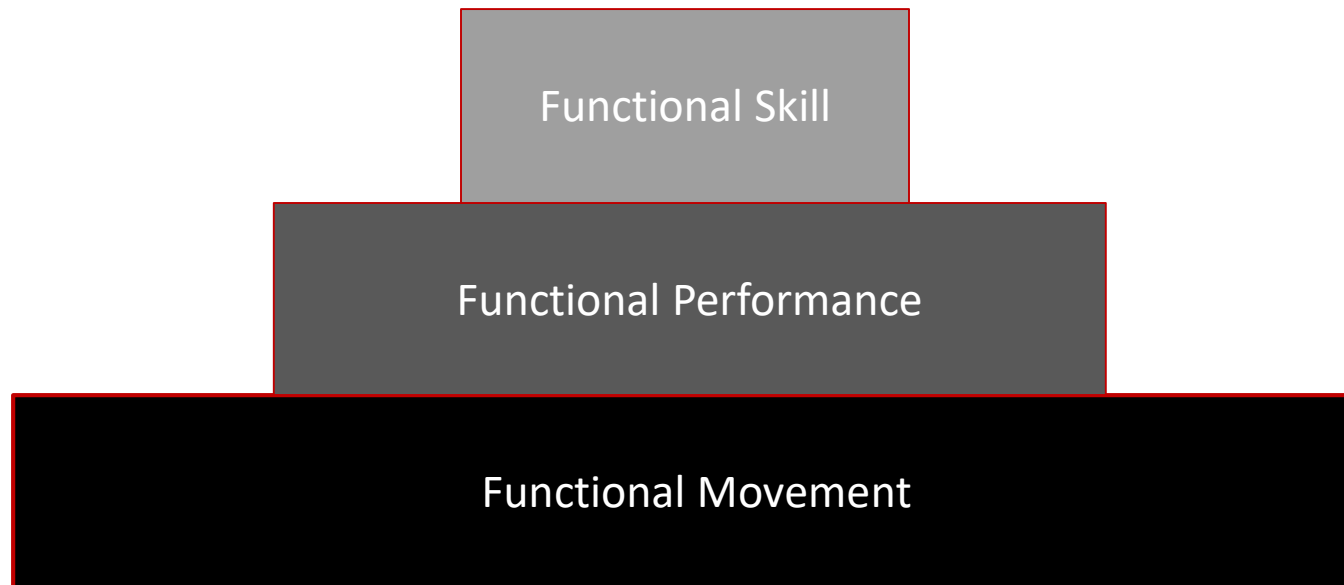


BACKGROUND

- This presentation was designed by Allen Hicks, owner of Evolution Physiotherapy.
- The performance improvement team model is Allen's adaptation of the Optimum Performance Pyramid, published by Gray Cook in his new book "Movement."
- The Optimum Performance Pyramid's were designed by Gray Cook (see reference on each slide)
- Gray Cook is a Senior TPI Medical advisory board member. He is the founder of the Functional Movement Screen, and helped develop the Titleist Performance Institute physical screens.

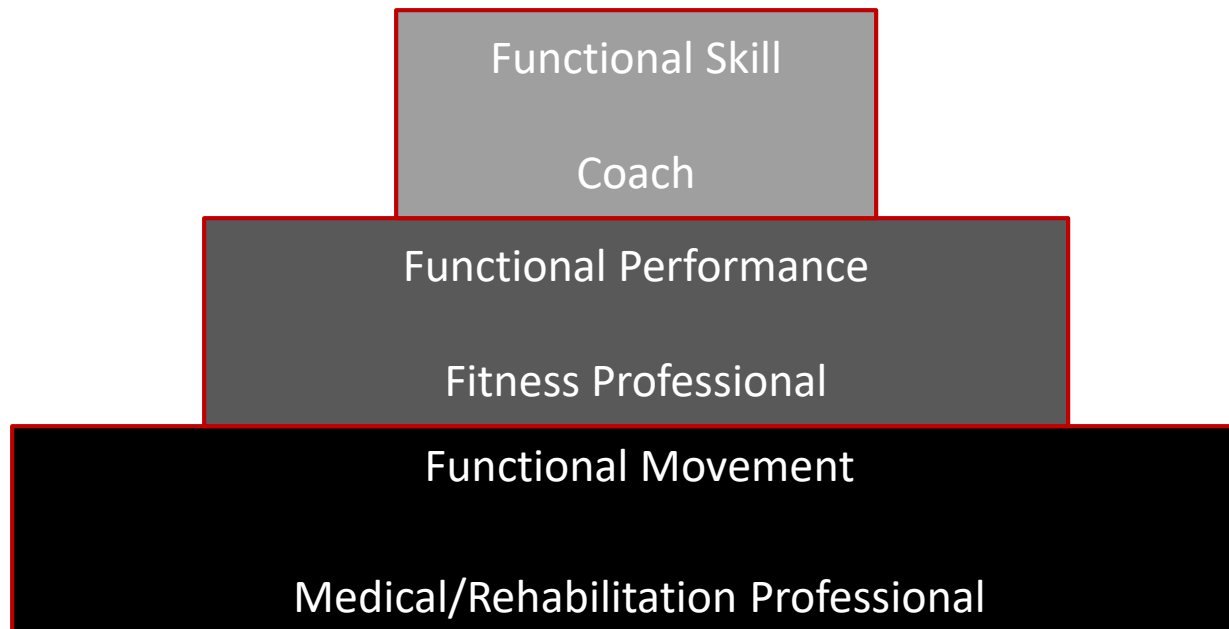
OPTIMUM PERFORMANCE PYRAMID

Cook, Gray (2010) *Movement*. Aptos, CA: On Target Publications



OPTIMUM PERFORMANCE PYRAMID

Performance Improvement Teams: Sport Interpretation, Allen Hicks, 2011



EXAMPLES OF TEAM MEMBER QUALIFICATIONS

Performance Improvement Teams: Allen Hicks, 2011



ATHLETE PERFORMANCE IMPROVEMENT TEAMS

What is your role?

- The following slides outline the most common roles of 3 members of the athlete performance improvement team:
 - The coaching/teaching professional
 - The fitness professional
 - The medical/rehabilitation professional

OPTIMUM PERFORMANCE PYRAMID

Performance Improvement Teams: Allen Hicks, 2011



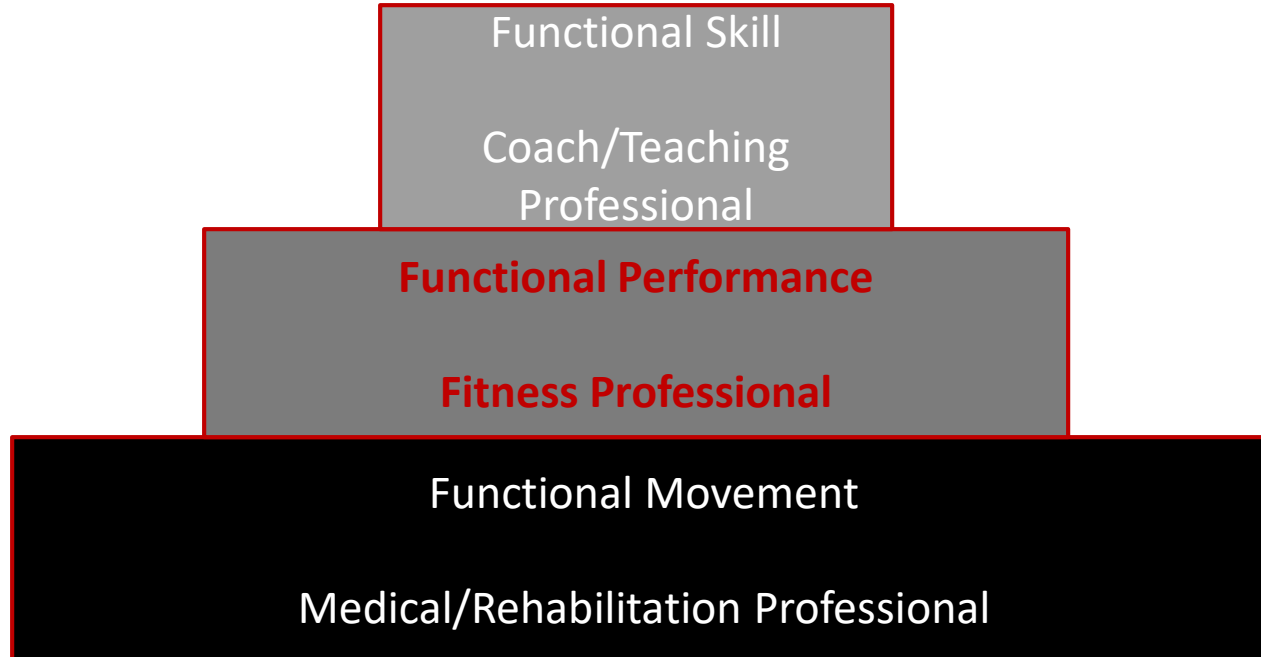
OPTIMUM PERFORMANCE PYRAMID

THE COACH/TEACHING PROFESSIONAL

- The coach/teaching professional is responsible for building functional skills through appropriate, sport specific coaching (the top of the pyramid).
- This includes addressing key areas such as:
 - **Mechanics**
 - **Technique improvement**
 - **Practice sessions programming**
 - **Equipment**
 - **Competition planning and scheduling**
 - **Co-ordinating sport-psychology testing and training**
- The coach/teaching professional will be much more successful if he or she can work with athletes who have a solid foundation of functional movement, and participate in functional performance training.

OPTIMUM PERFORMANCE PYRAMID

Performance Improvement Teams: Sport interpretation, Allen Hicks, 2011



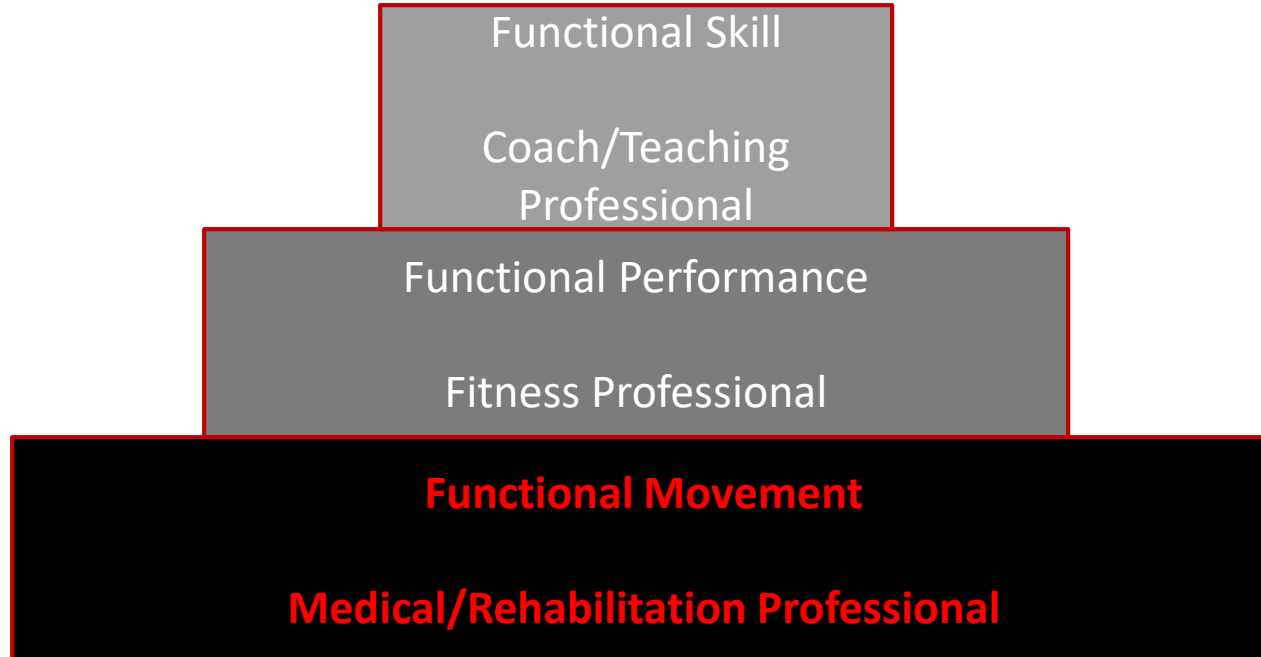
OPTIMUM PERFORMANCE PYRAMID

THE FITNESS PROFESSIONAL

- The fitness professional is responsible for building functional performance through an appropriately designed strength and conditioning program (the middle of the pyramid).
- This includes addressing key areas such as:
 - Flexibility
 - Strength and Endurance
 - Power and Agility
 - Aerobic and Anaerobic conditioning
- There is certainly some degree of overlap between the advanced phase of the rehabilitation program and the early phase of the strength and conditioning program. For this reason, it is extremely beneficial if the medical/rehab professional also has appropriate knowledge and training in current strength and conditioning principles and methods.

OPTIMUM PERFORMANCE PYRAMID

Performance Improvement Teams: Sport interpretation, Allen Hicks, 2011



OPTIMUM PERFORMANCE PYRAMID

THE MEDICAL PROFESSIONAL

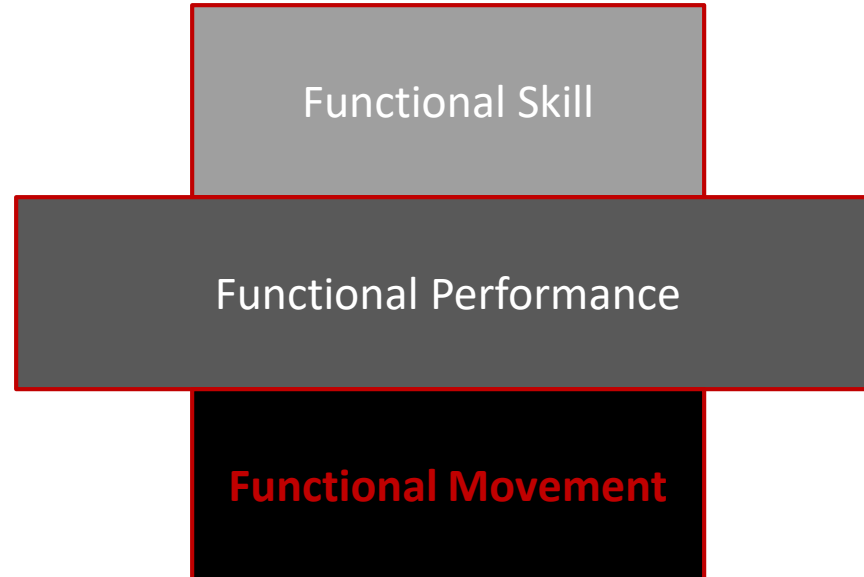
- The medical/rehab professional is responsible for ensuring the athlete has a solid foundation of fundamental movement (the bottom of the pyramid)
- This includes addressing key areas such as:
 - Pain
 - injury assessment/evaluation
 - injury treatment and rehabilitation
 - fundamental movement components, including: sport-specific mobility, stability, symmetry, and motor control
- A solid foundation will minimize poor movement patterns and compensations, and reduce injury risk. It allows for the next component, building functional performance, to proceed with maximum safety and efficiency.

MAINTAINING BALANCED PERFORMANCE

- The optimal performance pyramid represents a person whose functional movement patterns, functional performance, and functional skill are balanced and adequate.
- Team members should ensure that the balance of the performance pyramid is maintained as further improvement is pursued.
- The pyramid explains why replicating the program of one person will not consistently yield the results it does for another. Different athletes will have different shaped pyramids, requiring different degrees of focus to achieve improved outcomes.
- The following slides are examples of poorly balanced performance pyramids.

THE OVER-POWERED PERFORMANCE PYRAMID

Cook, Gray (2010) *Movement*. Aptos, CA: On Target Publications



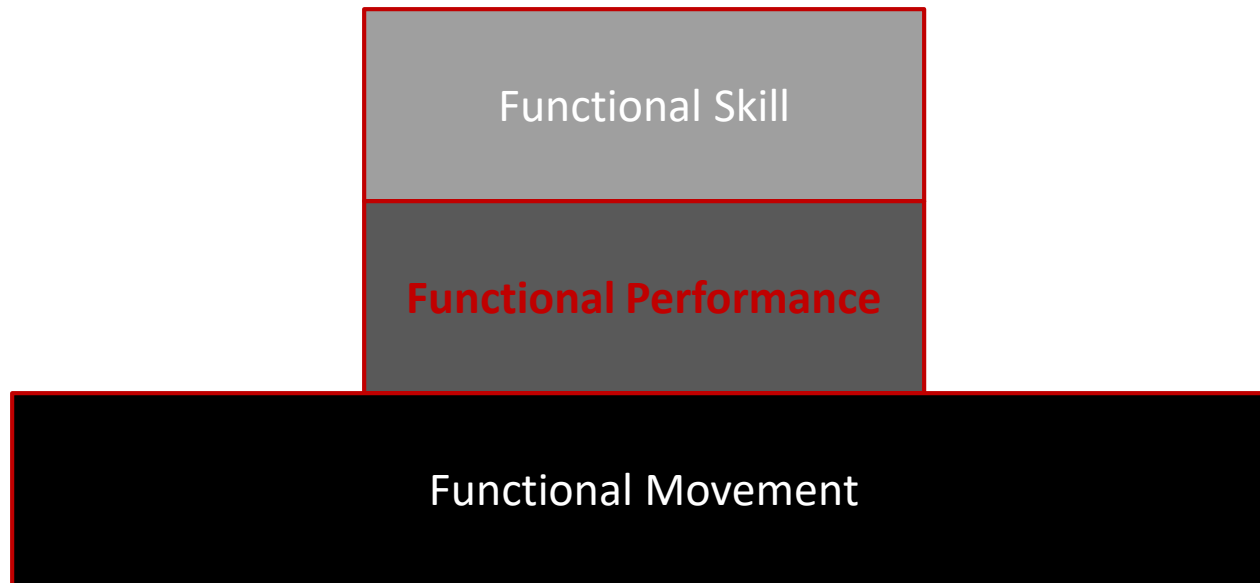
THE OVER-POWERED PERFORMANCE PYRAMID

Cook, Gray (2010) *Movement*. Aptos, CA: On Target Publications

- The ability to generate power exceeds the ability to move freely within fundamental movement patterns
- These athletes usually demonstrate poor mobility and stability, yet have high power production and skill.
- Many highly skilled and well trained people will replicate this performance pyramid.
- They are at higher risk for injury and would improve their performance further with improved movement efficiency (instead of wasting energy overcoming physical stiffness and inflexibility).
- The athlete should be evaluated by an appropriate medical professional to address any injuries and/or functional movement limitations

THE UNDER-POWERED PERFORMANCE PYRAMID

Cook, Gray (2010) *Movement*. Aptos, CA: On Target Publications



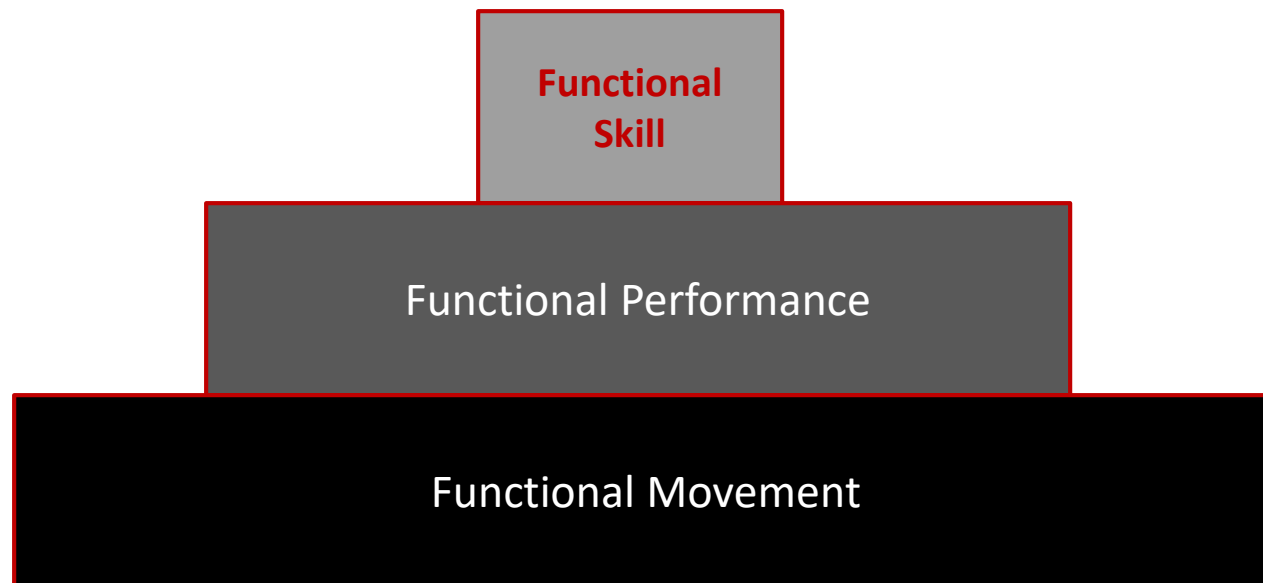
THE UNDER-POWERED PERFORMANCE PYRAMID

Cook, Gray (2010) *Movement*. Aptos, CA: On Target Publications

- This athlete has excellent freedom of movement, but their physical capacity is poor and needs improvement.
- They have poor power production, with optimal or above average skill.
- They would benefit most from an appropriate strength and conditioning program. It is very important to maintain functional movement patterns while working on this program. The fitness professional must stress excellent technique with all the exercises in the program.
- The program should focus on training at high speeds, with high loads and high forces.

THE UNDER-SKILLED PERFORMANCE PYRAMID

Cook, Gray (2010) *Movement*. Aptos, CA: On Target Publications



THE UNDER-SKILLED PERFORMANCE PYRAMID

Cook, Gray (2010) *Movement*. Aptos, CA: On Target Publications

- These athletes have the appropriate fundamental movement and fundamental performance foundations.
- They lack the required sport specific skill needed to attain the desired outcomes.
- They require a training program specifically designed around skill fundamentals and techniques.
- These athletes are physically ready to work with the appropriate sport-specific coach (eg. sprint coach, golf swing coach, pitching coach, etc)

SUMMARY

- Building an athlete performance improvement team will benefit the athlete and the team members.
- Excellent working relationships and communication among team members will ensure that all areas of the optimum performance pyramid are addressed appropriately.
- This will lead to improved outcomes, enjoyment, and satisfaction for everyone.

- For further information, contact Allen Hicks, at Evolution Physiotherapy:
- P: (613)271-5800; info@evolutionphysiotherapy.com