

Keeping Our Athletes Safe: Functional Assessments

Presented by:

Jacky Arrow PT, DPT, SCS

SPORTS Physical Therapist

Objectives

- Define why functional assessments are useful in conjunction with traditional methods
- Identify “red flags” that may call for a referral to an orthopedist or physical therapist
- Describe three functional assessments that can be used by healthcare professionals, athletic trainers, and coaches to determine functional limitations.

What is it?

- Looking at how the athlete moves
- Quality not quantity



When would I use these?

School Nurse

- Pre-participation screens
- In nurse's office

Coach

- Meeting your athletes
- During practice

Athletic Trainer & Physical Therapist

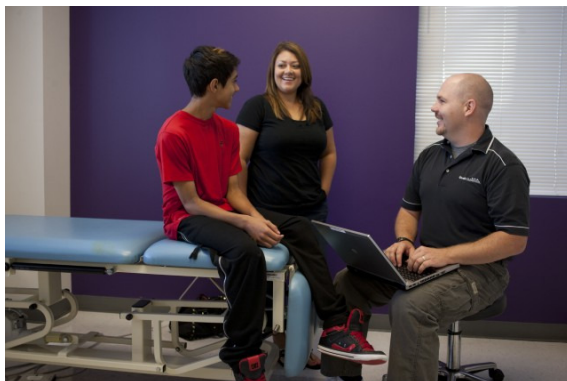
- Pre-participation screens
- Return to sport

All the puzzle pieces...

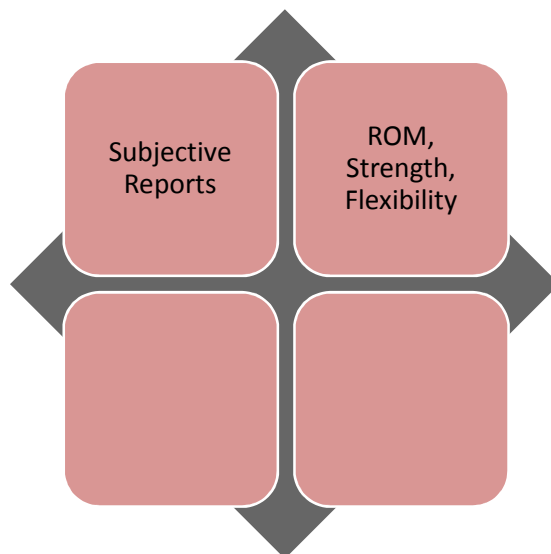


Subjective Reports

- Subjective Reports
 - Open to interpretation



All the puzzle pieces...

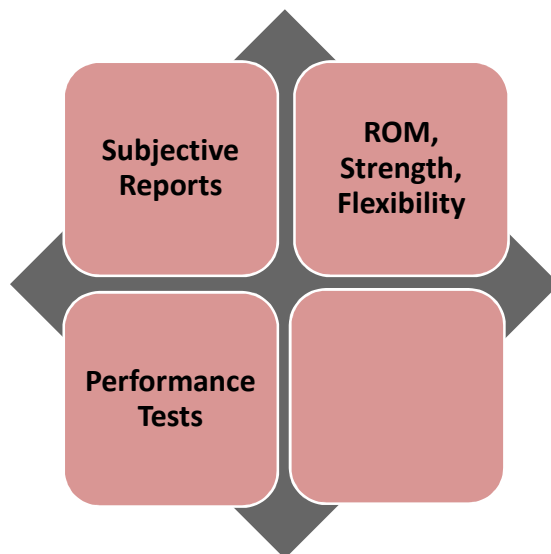


ROM, Strength, Flexibility

- ROM, Strength, Flexibility
 - Isolated to body segment
 - Important to know any major limitations
 - However, do not have strong correlation to functional ability¹

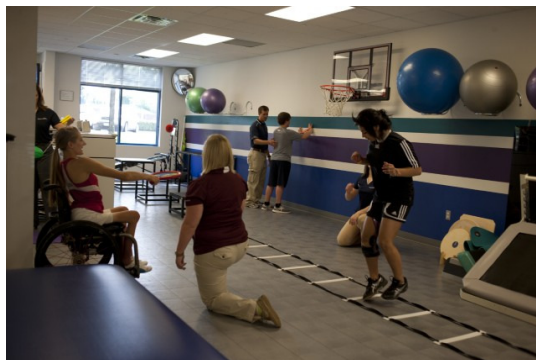


All the puzzle pieces...

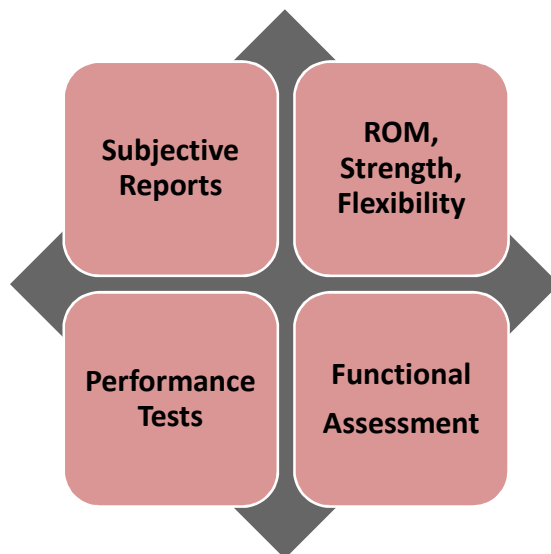


Performance Tests

- Performance Tests
 - Do not evaluate efficiency⁴



All the puzzle pieces...



All the puzzle pieces...

Functional Assessment

Full body
movement

Quality is
assessed

Linked to
injury risk
3,4,5,10

Create
strength and
conditioning
programs
2,8,13,14

Red Flags



- When to refer?
 - Injury or pain
 - Movement abnormalities



Functional Assessments

- Lateral Plank
- Broad Jump
- Functional Movement Screen
 - 7 tests
 - Indicative of injury risk^{3,8}
 - Deep squat
 - Active SLR

Lateral Plank

- Core strength and endurance^{9,14}
- Looking at:
 - Straight body
 - Neutral spine
 - Scapular positioning



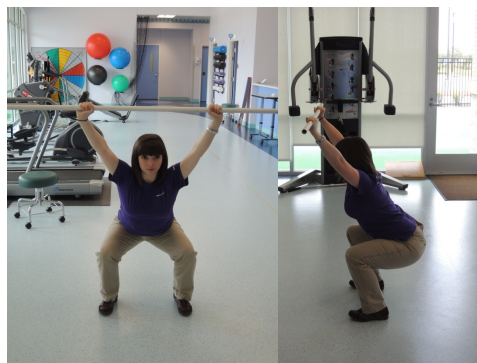
Broad Jump¹⁰

- Ability to produce power, absorb force
- Looking at:
 - Take off position
 - Landing position
 - Control in air



Deep Squat⁴

- Symmetrical mobility of hips, knees, ankles, thoracic spine, and shoulders
- Looking for:
 - Upright trunk
 - Past parallel
 - Knees over feet
 - Heels on ground



Active SLR⁵

- Ability to maintain trunk stability during leg movement, as well as hamstring and gastroc-soleus flexibility
- Looking for:
 - Both legs straight
 - Head down



More resources?

- Other FMS tests^{4,5}
 - <http://www.functionalmovement.com/>
- Modified NFL Combine Tests¹⁰
- Tuck Jumps
- Many, many others!

Then what?

- Corrective exercise
 - Based on deficits discovered
 - Can use the test position as an exercise
- PEP program
 - Warm up and strength/conditioning injury prevention program
- FIFA 11+
 - Warm up and strength/conditioning injury prevention program

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Thank you!

