Screening and Testing

Machar Reid and Miguel Crespo
ITF Development Department
Facts about screening!

What is it?

1. Medical – comprehensive evaluation of general health and injury risk.

   ASKING THE COACH: List the areas evaluated…


   ASKING THE COACH: List the areas evaluated…
More facts!

Why is it important?

Can help to prevent injury
Physical programmes can be individualised

Who is it performed by?

MEDICAL SCREENING – Doctor
M/SKELETAL SCREENING – Physiotherapist

Coaches should have a basic understanding of the areas examined and common, related problems encountered by tennis players.
In groups, list two common problems detected in the musculoskeletal screening and outline how they inhibit a player’s performance.

- Shoulder girdle
- Pelvic girdle and lumbar spine
- Patellofemoral (knee)
- Elbow/wrist
- Ankle and foot
FITNESS TESTING

Ok so you’ve had your players screened.

Fitness testing is then performed for 4 major reasons:

Supplement a coach’s subjective appraisal;
Monitor an athlete’s progress;
Motivate the athlete;
Predictor of performance potential.
Facts about testing!

**Reliability**

The need to administer the tests so that potential sources of error are minimised

**Validity**

The need to design tests that measure what they are supposed to!

*ASKING THE COACH: How can reliability and validity be provided for?*
## LAB and FIELD TESTING

<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
<th>LAB TESTS</th>
<th>FIELD TESTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precision of measurement</td>
<td>√ √</td>
<td>√</td>
</tr>
<tr>
<td>Ease of administration and interpretation</td>
<td>√</td>
<td>√ √</td>
</tr>
<tr>
<td>Cost</td>
<td>√</td>
<td>√ √</td>
</tr>
<tr>
<td>Specificity</td>
<td>√ √</td>
<td>√</td>
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**ASKING THE COACH:** List some examples of lab and field tests…

LEVEL III COACHES COURSE
Purpose: assess the fundamental movement qualities of range of motion, balance and stability. Largely concerned with quality of execution, not quantity of executions!

Can complement musculoskeletal screening, should not be considered a definitive substitute.

*ASKING THE COACH: Do coaches use/know of any other FMT’s?*
<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>FIELD TESTS</th>
<th>LAB TESTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropometrics</td>
<td>Height (cm), Weight (kg)</td>
<td>Body fat (cm)</td>
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<tr>
<td>Flexibility</td>
<td>Assessed in m/skeletal screening.</td>
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<tr>
<td>Aerobic endurance</td>
<td>Multi-stage fitness test, 2.4km run, Cooper 12 min run</td>
<td>VO2 max test, Staged track test</td>
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<tr>
<td>Anaerobic endurance</td>
<td>Tennis-specific agility endurance test (% decrement)</td>
<td>Field tests with timing gates</td>
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<tr>
<td>Strength</td>
<td>Repetition maximum or maximum bodyweight measures</td>
<td>Muscle biopsies</td>
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<tr>
<td>Upper body power</td>
<td>Medicine ball throws</td>
<td>Service speed, racquet velocities</td>
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<tr>
<td>Lower body power</td>
<td>Vertical or standing long jumps/hops</td>
<td>Force platform data</td>
</tr>
<tr>
<td>Speed</td>
<td>5, 10, 20m sprints</td>
<td>Field test with timing gates</td>
</tr>
<tr>
<td>Agility and coordination</td>
<td>Planned and unplanned movement tests</td>
<td>Field tests with timing gates, specific coordination tests</td>
</tr>
</tbody>
</table>
Good, better, best, I will never rest, until my good is better and my better is best.