Exercise Testing for Community-Based Adaptive Sports and Recreation Programming

Ashley Fallaize MS, CARSS II, CIFT, AAI
Learning Outcomes

By the end of this session, the participant will be able to:

• critically examine why programs should exercise test adaptive sports/recreation athletes.
• select the best test battery for adaptive sports/recreation programming for both individuals and teams.
• understand how to proctor exercising testing for individuals with physical, visual and intellectual impairments in adaptive sports and recreation programs.
Importance of Exercise Testing for Community-Based Programs

- Responsibility to funders
- Inform athletes
- Internally evaluate programs

Picture of a female athlete in a wheelchair and a male athlete in a wheelchair, pushing on an indoor track.
# Fitness Components

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<th>Health Related</th>
<th>Skill Related</th>
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<td>Muscular Endurance</td>
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<td>Body Composition</td>
<td>Coordination</td>
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<td>Speed</td>
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Team vs. Individual Testing

• Individual exercise testing pros and cons
• Team testing pros and cons
• Best practices for testing

Picture copied from:
Disability Specific Concerns

- Techniques for Physical Impairments
  - Wheelchair users
  - Amputees
  - Short Stature
- Techniques for Visual Impairments
- Techniques for Intellectual Impairments
Test Batteries- Cardiovascular

• 6-minute push test (wheelchair users)
• Multistage field test for wheelchair users
• PACER (amputee, short stature)
• 2-minute step test (visual impairments)
• 6-minute walk test (mobility impairments)
Test Batteries- Muscular Strength

• Seated Med Ball Throw (great for all) (upper extremity)
• Handgrip strength test (great for all) (hand strength)
• Seated push up test (upper extremity)
• 1 Rep Max Test
Test Batteries- Muscular Endurance

• Curl-Up Test (abdominal endurance) (good trunk control)
• Push-Up Test (upper body endurance) (good trunk control)
• Arm Curl Test (upper body endurance) (everyone)
• 30-second chair stand test (lower body endurance) (decreased mobility)
• Wall squat (lower body endurance) (ambulatory)
Test Batteries- Flexibility

• Back Scratch Test (upper body flexibility)
• Sit and Reach Test (trunk flexibility) (requires box)
• Chair Sit and Reach (trunk flexibility)

Picture of how to measure the back scratch test. Shows the back of an individual in three photos, positioning hands and getting measured.
Test Batteries- Body Composition

• Disclaimer on BMI - what do we know?
• Height
• Weight
• BMI (calculated for sex)
• BIA (handheld)
Skill-Related Components of Fitness

• 8-foot timed up and go (coordination and agility) (ambulatory)
• Measured speed test (speed) or sprint test (power)
• Cone weave test (agility)
• Standing balance test (balance)
• Alternate- Hand Wall Toss Test (coordination)
• Necessary basic skills per group
  • Example: dribble, free throw
• Use what you have around you – track, pool etc.
• Equipment specific testing
  • Using same equipment for testing
• Look at able-bodied measures- can adapt?
Resources

Developmental and Adapted Physical Activity Assessment
Senior Fitness Testing Manual
Wheelchair Fitness Testing by NCHPAD
Top End Sports
Brockport Fitness Test Manual
Eurofit Special
More questions?

Ashley Fallaize
afaallaize@blazesports.org
404-270-2029