



Exercise Testing for Community- Based Adaptive Sports and Recreation Programming

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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



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

- Responsibility to funders
- Inform athletes
- Internally evaluate programs



Fitness Components

Health Related	Skill Related
Cardiovascular	Agility
Muscular Strength	Balance
Muscular Endurance	Power
Flexibility	Reaction Time
Body Composition	Coordination
	Speed



Team vs. Individual Testing

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



Picture copied from:
<https://www.af.mil/News/Article-Display/Article/799698/standing-tall-amputee-airmen-seek-to-defy-odds-in-therapy-sessions/>



Disability Specific Concerns



Picture of youth three males, one being short stature, dribbling basketballs on a indoor basketball court.

- 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)

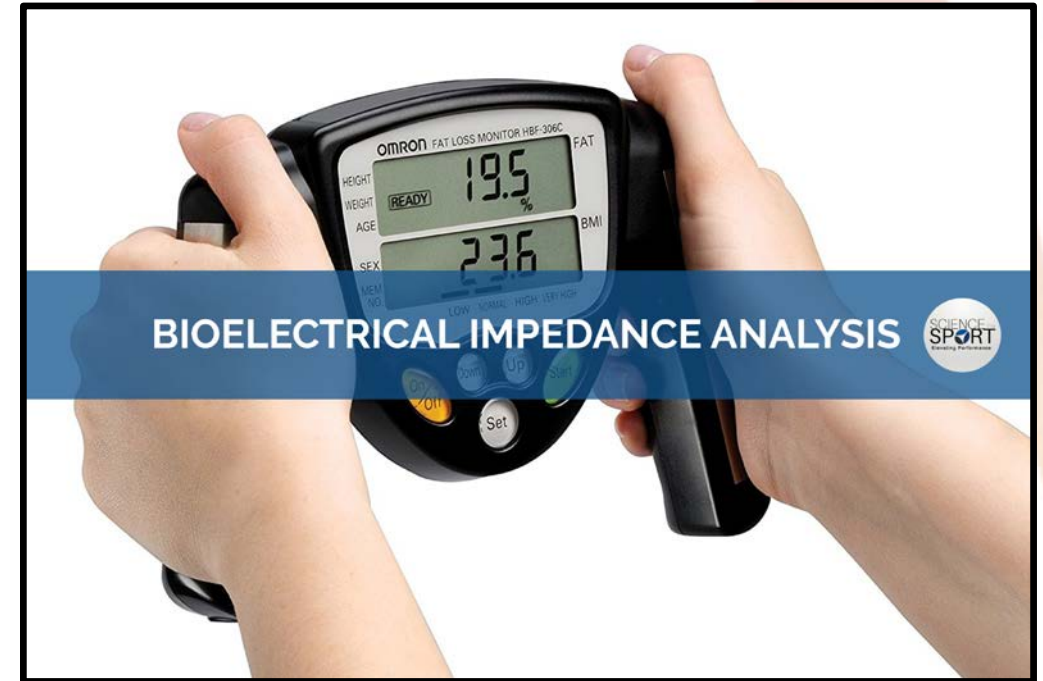


Picture of how to measure the back scratch test. Shows the back of an individual in three photos, positioning hands and getting measured.



Test Batteries- Body Composition

- Disclaimer on BMI- what do we know?
- Height
- Weight
- BMI (calculated for sex)
- BIA (handheld)



Picture of a BIA machine being held in a pair of hands.



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)



Sport Specific Considerations

- 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](#)



Q & A

More questions?

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