The event will begin momentarily.

- This event is being recorded
- Captions are available by clicking the CC icon in the Zoom toolbar below
- ASL is provided
- Presentation materials are available at: www.access-board.gov
Moving Forward:
Access to Inclusive Fitness Equipment

July 14, 2021
Lex Gillette
Paralympian
Panel 1

Need for Inclusive Fitness Equipment

Kelly Bonner
National Center on Health, Physical Activity and Disability (NCHPAD) / Lakeshore

Clark Rachfal
American Council for the Blind (ACB)
Kelly Bonner

Associate Director of NCHPAD
Certified Inclusive Fitness Trainer- ACSM
Certified Personal Trainer- ACE
Why Inclusion is Important
Equity

• Equal opportunities to participate
• What the pandemic taught us
Inclusion Means

To transform communities based on social justice principles in which all community members:

- Are presumed competent
- Are recruited and welcome as valued members of their community
- Fully participate and learn with their peers
- Experience reciprocal social relationships.
Current State of Health
Disability Impact

• Disability is especially common in older adults, women and minorities.
• 2 in 5 adults age 65 years and older have a disability
• 1 in 4 women have a disability.
• 2 in 5 non-Hispanic American Indians/Alaska Natives have a disability.
Disability Impacts All of Us

• Adults with disabilities are **2-3 times more likely** to have heart disease, stroke, diabetes, or cancer than adults without disabilities

• **60%** of all adults with disabilities get no **aerobic physical activity**, an important health behavior to help avoid these chronic diseases

• **38% higher** obesity rates for youth with a disability

• Disability is a health disparity **NOT a health outcome!**
Health of People with Disability

- Poor health epidemic
- Inactivity and sedentary lifestyles
- Misconceptions and oversight
- Lack of health promotion
- Lack of information, training, and resources
Barriers to Physical Activity

- Programmatic
- Attitudinal
- Architectural
National Center on Health, Physical Activity and Disability

- Founded in 1999, NCHPAD is a public health practice and resource center for information on physical activity, health promotion, and disability, serving persons with physical, sensory and cognitive disability across the lifespan.
- Funded National Center on Disability from the Centers for Disease Control and Prevention, National Center on Birth Defects and Developmental Disabilities (NCBDDD)
- Operates within the UAB/Lakeshore Foundation Research Collaborative
Discover Inclusive Events

A guide to creating access and inclusion at all events.

Disclaimer:
This toolkit does not ensure ADA compliance. To find standards required by law, please visit www.ada.gov or other similar documents such as:

Workout

For more exercise options, go to www.nchpad.org

Guidelines for Disability Inclusion in Physical Activity, Nutrition, & Obesity Programs and Policies

Implementation Manual

YouTube

- Inclusive meditations
- Inclusive fitness
- How to video series
- Nutrition
- Intro to Exercise
- Much more
Clark Rachfal

Director of Advocacy and Governmental Affairs
American Council of the Blind (ACB)
QUESTIONS?

You may type and submit questions in the Q&A Area
Panel 2:

Ongoing Inclusive Fitness Initiatives

Bill Botten
US Access Board

Dr. Stephanie Schnorbus Stephens
Beneficial Designs Inc. / RESNA – Inclusive Fitness

Richard Thesing
Mobility Fitness / ASTM

Dr. Elizabeth Barstow
Sangeetha Padalabalanarayanan
University of Alabama at Birmingham
Americans with Disabilities Act (ADA)

Architectural Barriers Act (ABA)

Minimum Requirements
Types of Facilities Covered

**ADA – STATE AND LOCAL GOVERNMENT FACILITIES, PLACES OF PUBLIC ACCOMMODATION, COMMERCIAL FACILITIES**

- Health club, gym, fitness facility, training studio
- Employee fitness facilities
- Professional sports team training facilities
- Fitness facilities connected with a hotel/motel, resort, airport, spa
- Local recreation centers, YMCA
- Education facilities, colleges
- Outdoor fitness facilities

**ABA – FEDERALLY FUNDED FACILITIES**
§236.1 General
At least one of each type of exercise machine and equipment shall comply with §1004.

Advisory: Most strength training equipment and machines are considered different types. Where operators provide a biceps curl machine and cable-cross-over machine, both machines are required to meet the provisions in this section, even though an individual may be able to work on their biceps through both types of equipment.

Similarly, there are many types of cardiovascular exercise machines, such as stationary bicycles, rowing machines, stair climbers, and treadmills. Each machine provides a cardiovascular exercise and is considered a different type for purposes of these requirements.
§1004 - Exercise Equipment and Machines

§1004.1 Clear Floor Space
Exercise machines and equipment shall have a clear floor space complying with §305 positioned for transfer or for use by an individual seated in a wheelchair.
Exercise Equipment and Machines

- 30” x 48” clear space and connecting accessible route
- Positioned for use by an individual using a mobility device
- Clear floor space or ground space for more than one piece of equipment can overlap
Operable Parts §205.1 (Exception 8)

Exercise machines and exercise equipment shall not be required to comply with requirements for operable parts (§309).
Further Information

U.S. Access Board

ta@access-board.gov

www.access-board.gov

(800) 872-2253 (voice)

(800) 993-2822 (TTY)
Moving Forward: Access to Inclusive Fitness Equipment—

RESNA IF: Writing Standards for Fitness Facilities

Stephanie Schnorbus Stephens, Ph.D.
Beneficial Designs, Inc.
Minden, Nevada
Standards: Bridging the Gap

Created by balanced committees
Can be mandatory or voluntary
Translate requirements into practice
Provide instructions, objective specifications, and test methods
Can provide best practices
Help implement laws and mandates to improve access
Standards: Bridging the Gap (cont.)

ADA covers the built environment.

But once parked and inside a public fitness facility,

What does a person with a disability have access to?
The Gap Illustrated

Can’t negotiate safely around or on/off equipment

Give up?

Or risk injury?
The Gap Illustrated (cont.)

Staff and trainers experienced with disability
Inclusive programming
Inclusive environment

All almost nonexistent
Inclusive Fitness

Fitness in the Community

Specialized medical therapy settings

- No family and friends
- Travel burden
- Under treatment/insurance

Inclusive fitness means fitness in the local community
Inclusive Fitness
Momentum

2012, RESNA Standards Committee on Inclusive Fitness

- Consolidate best practice to increase access for people of all abilities and the aging
- Enable benchmarking, action planning, and progress monitoring of accessibility
- Reframe the language of “access” to “universal design” and “inclusive”
- Allow people with disabilities to identify centers meeting their needs
So what does it mean to be inclusive?
Section 1: Providing and Marketing Inclusive Fitness Environments
RESNA IF-1:2021
Inclusive Fitness Environments

Section 2: Disclosure of Published Methods and Requirements for Creating Inclusive Fitness Environments and Implementing Inclusive Fitness Practices

Policy
Facility
Equipment
Programming
Staff/trainers
Users/consumers
RESNA IF-1:2021
Inclusive Fitness Environments (cont.)

Section 3: Specifications, Test Methods, and Best Practices for Facility Accessibility

Includes fitness equipment scoping for existing and new facilities
Draft RESNA IF-1
Inclusive Fitness Environments

Section 4: Specifications for Training and Certification for Working with People with Disabilities for Community-Based Fitness Facility Staff

Trainers and staff
University curriculum
Draft RESNA IF-1
Inclusive Fitness Environments

Section 5: Guidelines for Disclosure of Information about Adherence to Best Practices Related to Inclusive Fitness Environments for Marketing Purposes

What do people need to know?
How do they want to get the information?
Users survey under development
Draft RESNA IF-1
Inclusive Fitness Environments (cont.)

Section 6: Policies

So new, the full title is still to be drafted

Best-practice policies

Benefits of hiring people with disabilities
RESNA IF
Experts Needed

Fitness equipment manufacturers
Academic researchers

Application and standards order form:
https://www.resna.org/AT-Standards/Inclusive-Fitness-IF
Email: stephanie@beneficialdesigns.com
Acknowledgements

The contents of this project were developed by RERC RecTech under a grant from the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR grant numbers—H133E120005 and 90REGE0002). NIDILRR is a Center within the Administration for Community Living (ACL), Department of Health and Human Services (HHS). The contents of this presentation do not necessarily represent the policy of NIDILRR, ACL, HHS, and you should not assume endorsement by the Federal government.
All strength machines have a fixed seat and/or the handgrips are located such that a person must stand to reach the handgrip. Many people in a wheelchair cannot transfer to a fixed seat and no person in a wheelchair can stand to reach a handgrip.
The FreeMotion dual cable cross machine is the only strength machine that allows a user in a wheelchair to perform numerous exercises. It is widely used and has been in existence for over 20 years.

FreeMotion is currently upgrading the product to comply with the ASTM inclusive standards.
Key Features

- Locking Plunger Adjustment on swing away seat allows easy access for wheelchairs users and one-handed seat adjustment for users with limited mobility
- Adjustable Lever Arm enables a non-stressed start position for users with limited shoulder flexibility and wheelchairs users
- Upright Seat Back Support (10°) allows wheelchair users to maintain stability with heavier weights
- Integral 3-position Twist Select mechanism offers ease of weight selection from seated exercise position
- Top Mounted Exercise Pivot Position ensures correct biomechanical chest press movement from the hinged lever arm pivoting at the top
- Choice of Upper and Lower Handle Positions which caters for wheel-chair users, shorter users and those with balance problems
- Weight Stacks with Low Start Weights and 2.5kg Increments suitable for inexperienced and older users
A good example of a recumbent cardio machine where the arms move the legs, and the seat can be removed so that it can be operated from a wheelchair. Unfortunately, Life Fitness has no plans to add the ASTM audible features.
True Fitness recently purchased Octane. It plans to have the seat separated like the SCIFIT Stepper and add the audible feature to make the product ASTM compliant.
R3x-U Recumbent Cycle

- Provides an effective cardiovascular exercise
- Step-through design ensures easy access
- Low impact exercise
- Clear and central seat adjust, tactile seat number positioning
- Clear and easy to use tactile console control keys, program indicators, numbers & icons
- Fully supportive, highly visible pedals and straps.
- Raised tactile quick / adjustment keys
Total Access - Treadmill Model 750T IFI

• Multiple belt logos ensure that one logo is always completely visible at all times so that visually impaired and other users can recognize if the belt is moving

• Raised console iconography and color allows easy identification of the main controls both by color, large buttons and text for older users, plus raised iconography for visually impaired users

• Emergency kill cord switch provides safe emergency stop for users with limited upper limb function

• Running deck and belt color contrast. An important feature for users to be able to determine whether the belt is moving from the static side rails
U.S Access Board

Moving Forward: Access to Inclusive Fitness Equipment

Research to support the effort
Presenters

• **Left-** Beth Barstow PhD, OTR/L, SCLV, FAOTA
  - Associate Professor, Program Director Graduate Certificate in Low Vision Rehabilitation
  - Occupational Therapy Department UAB

• **Right-** Sangeetha Padalabalanarayanan, MS
  - Program Director, RERC RecTech, UAB/Lakeshore Research Collaborative
  - Secretary, RESNAIF Committee
Table of contents

1. How research facilitated ASTM and RESNAIF process?
2. Barriers and facilitators on using standards
3. Mapping system to locate accessible physical activity resources in the community
4. Evaluation tools
Disclaimer:

The contents of these projects were developed by RERC RecTech under a grant from the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR grant numbers- H133E120005 and 90REGE00002). NIDILRR is a Center within the Administration for Community Living (ACL), Department of Health and Human Services (HHS). The contents of this presentation do not necessarily represent the policy of NIDILRR, ACL, HHS, & you should not assume endorsement by the Federal Government.
Previous Research


AIM 1- To determine the barriers and facilitators for producing accessible fitness equipment

What do product manufacturers perceive as the primary issues associated with manufacturing UD fitness equipment? Accessible fitness equipment is defined as products that meet the ASTM UDFE standards.

AIM 2- To determine the barriers to and facilitators for designing accessible public and private fitness facilities in the context of programming, services, and environments.

What do fitness facility personnel perceived as the primary issues associated with designing accessible fitness facilities. An accessible facility is defined as meeting the RESNA National Guidelines for Inclusive Fitness.

AIM 3- To assess the relative importance of criteria and “trade-offs” individuals with disabilities would make when prioritizing UD features in public and private fitness facilities.

Which UD features should manufacturers prioritize for adoption & how should they estimate the differences in priority weights of UD features between subgroups of individuals with disabilities.

AIM 4- To compare and contrast the perceptions of equipment manufacturers and fitness facility personnel to the priorities given by individuals with disabilities regarding UD features.

What driver diagram best describes the aggregate views of individuals, equipment manufacturers and fitness facility personnel for illustrating how UD principles can be applied to enhance accessibility of recreation and fitness facilities, programs, & services.
PHASE 1

• We completed qualitative interviews of 8 national/international equipment manufacturers

• Perceived barriers and facilitators to manufacturing accessible fitness equipment.

• The results themed into 1) Challenges and 2) Tipping the scale.
PHASE 2

• Interviewed 6 fitness facility personnel

• Perceptions of universal design and accessible programming, equipment and space

• All 6 reported
  • Lack of funding to implement programming, train staff and purchase accessible equipment
PHASE 3

• Interviewed 8 individuals

• Perceptions of universal design and accessible programming, equipment and space

• Very preliminary findings indicate the type of accessible equipment desired and a strong preference for staff training. Many feel that an affordable trainer who is skilled in adapting physical activity, is the most important component of a gym membership
Activity Inclusion Mapping System (AIMS)

• Early prototype-proof of concept
• Geotagged, crowdsourced mapping system to identify accessible and usable community-based resources
• Off-the-shelf open-source product
• Resources mapped for two counties in Alabama
AIMS- Features
Accessible Camping
Oak Mountain State Park

200 Terrace Drive, Pelham, AL 35124, USA

Activities are reported to be wheelchair accessible

205-620-2520 Directions www.alapark.com

Sunday: 7:00am - 8:00pm
Monday: 7:00am - 8:00pm
Tuesday: 7:00am - 8:00pm
Wednesday: 7:00am - 8:00pm
Thursday: 7:00am - 8:00pm
Friday: 7:00am - 8:00pm
Saturday: 7:00am - 8:00pm

Adult Admission: $4
Senior or Child Admission: $1
Horse Ride: $35-60
Golf (9 Holes, 18 Holes) on weekdays: $17, $23
Boat Rental: $14-22 per hour

Additional Resources

Pelham Civic Complex
500 Amphitheater Rd, Pelham, AL 35124, 1.78 mi

Walmart Superstore
2181 Pelham Parkway, Pelham AL 35124, 2.17 mi

Oak Mountain Lanes
300 Bowling Ln, Pelham, AL 35124, USA, 2.22 mi

YMCA and Shelby Baptist Physical Therapy -- Pelham
2610 Pelham Pkwy, Pelham, AL 35124, USA, 2.3 mi

Anytime Fitness--Pelham
2691 Pelham Pkwy, Pelham, AL 35124, USA, 2.42 mi

Please be aware that the pricing has gone up to $5 per person, and they accept cash only. That being said, it's totally worth it. My boyfriend and I stopped... Read More
AIMS- Reviews based on accessibility

Oak Mountain State Park has grown to 9,940 acres making it Alabama’s largest state park. With the largest land-area, one of the widest varieties of outdoor activities of any state park, and its proximity to Birmingham, Oak Mountain is a perfect stop while traveling to and from the state’s largest city.

Last updated: Jul 24 2015

Accessible Features:

- Parking
- Paths
- Information Material in Accessible Format
- Restroom Stall
- Restroom Sinks
- Level Change
- Signage
- Free Activities

Show/Hide Detailed Accessibility Information

Comments

John (Apr 1 2016)

Mobility Aid Used If Any: Manual Wheelchair
Built Environment: ★★★★★
Services: ★★★★★
Instruction: ★★★★★
Equipment: ★★★★★
Policy: ★★★★★
Overall: ★★★★★

Wonderful park! So many activities for the family and me as well!

Contact Us

If any information needs to be corrected, please email us at email@rectech.org
AIMS Accessibility

Getting into the Building:
chip for parks or stores with no building: Explore the main entrance to the building. It may be necessary to walk or roll around the building to find the accessible entrance.

The entrance doorways have the following features (check all that apply): ?
- Door opening is at least 32 inches wide
- Door threshold is flush with the ground or only slightly raised (less than or equal to 1/4 inch)
- None of the above

The facility entrance has the following features (check all that apply): (Note: Assess the separate accessible entrance if there is no access at the main entrance) ?
- Power assist or automatic door
- Minimal force required to open door (less than or equal to 5 lbs)
- Door handle operable with a closed fist without pinching or grasping with the wrist
- None of the above

The stairs at the main entrance have the following features (check all that apply): ?
- Ramp less than 5 degrees
- Separate accessible entrance
- Platform Lift
- signage available that directs individuals to an accessible entrance
- None of the above
- N/A no stairs at the main entrance

Information:
Observe postings or any informational materials near the entrance to the building or in other common areas. It may be necessary to ask a staff person to see promotional materials, such as brochures.

Promotional materials for physical activity or nutrition education programs are offered in the following formats (check all that apply): ?
- Electronic version in plain text (ASCII) including text descriptions of pictures
- Large print (18 pt font size or larger)
- Staff member available to explain materials
- None of the above
- No promotional materials
- N/A no programs
Horseback Riding:
Assess adaptations/options for an individual with an impairment/disability.

Horseback riding is offered:
Indoors ☐ Outdoors ☐ Both ☐

The following adaptations are available for horseback riding (check all that apply): ?
- ☐ Seated options to participate
- ☐ Adaptations for poor grip strength such as straps/belts/or gloves
- ☐ Adaptations for people with hearing impairment
- ☐ Adaptations for people with visual impairment
- ☐ Adaptations for people with lower extremity disability
- ☐ None of the above

Horseback riding offers the following adaptations (check all that apply): ?
- ☐ Ramp for wheelchair users to mount horse/carriage
- ☐ Alternate seating for individuals with poor core strength
- ☐ Straps for feet and/or hands
- ☐ Hand controls for self-driving
- ☐ Alternate horse commands
- ☐ None of the above
- ☐ Other

In regards to level changes, entry ways, and other barriers, horseback riding is:
Wheelchair Accessible ☐ Not Wheelchair Accessible ☐
RecTech Current Cycle

- **Proof of product- RecTechmatch**

- **Person-centered approach**

- **10 end users/5 trainers**
  - Interview takeaways
  - Home based exercising
  - Access to trainers

- **Product status:**
  - Completion of renewed product
  - Pilot testing
  - Launched through NCHPAD website
  - Include RESNAIF and ASTM certified facilities/products
Assessment Tools

A Universally-Designed Tool

Figure 1: Rationale for the design of a universal instrument that meets the needs of all populations

Proposed Instrument

Existing Instruments

Community Health Inclusion Index (CHII)

CHLI

CHII

CHANGE

HAN-EAT

AIMFREE

Q-PAT

CHEC

CHIEF

General

Minority

Aging

Disability

Number of barriers experienced

Least number of barriers to physical activity and healthy eating experienced

Most number of barriers to physical activity and healthy eating experienced

* Limited # of disability, aging and minority items

Existing Instruments: CHLI-Community Healthy Living Index, CHANGE-Community Health iNd Group Evaluation, HAN-EAT-Healthy Aging Network Environmental Audit Tool, AIMFREE-Accessibility Instruments Measuring Fitness and Recreation Environments, Q-PAT-Quick Pathways Accessibility Tool, CHEC-The Community Health Environment Checklist, CHIEF- Craig Hospital Inventory of Environmental Factors.
Fitness facilities still lack accessibility for people with disabilities

James H Rimmer 1, Sangeetha Padalabalanarayanan 2, Laurie A Malone 2, Tapan Mehta 4

Affiliations

PMID: 28143707
Contact us

Barstow (205)934-7321; Padalabalanarayanan (205) 975-0550

1720 3rd Avenue South, Birmingham AL 35022

bbarstow@uab.edu; Sangee@uab.edu

Website: https://www.rectech.org
Thank you!
QUESTIONS for Panel 2?

You may type and submit questions in the Q&A Area
Panel 3

Implementation of Inclusive Fitness Equipment

Gus LaZear
Ability 360

Catherine Carty
UFIT / UNESCO Chair for Inclusive Fitness

Jon Walker and Lloyd Reese
Playcore

Ileana Rodriguez
I Design Access, LLC
Gus LaZear
UNIVERSAL FITNESS
Amenities
Memberships
Membership Classes
Recreation Therapy
Personal Training
Youth
Aquatic
Military
Seniors
Sports
Rentals
Ability360 Sports & Fitness Center Partners

• Ability360 Center Partners
• Rehabilitation Facilities
• Disability Organizations
• Universities
• Local Teams and other Sports Organizations
• K-12 Schools
• Military Organizations
• Community Organizations
Universal Fitness

Has to be your culture
Listen to your members and your community
There is not a one size fits all
Pilot programs
Do what you say you are going to do
Maintain member trust
Equipment
Equipment
Equipment
Equipment
Equipment
Universal Fitness

- Starts with your culture
- Always educating
- Always learning
- Always listening
  - Members
  - Staff
  - Community
Gus LaZear – Vice President – Operations & Sports & Fitness

GUSL@ABILITY360.ORG
US Access Board Inclusive Fitness Event
July 14th 2021

Catherine Carty

UNESCO Chair Project Manager
Women with disabilities are inactive at levels that promote health. It is significant that the deconditioning and loss of function experienced by persons with disability due to inactivity impacts more on quality of life and health than the presenting disability.

- Individuals with disabilities are 3 times less active than persons without disabilities.
- Children with disabilities are 4.5 times less active than their peers without disabilities.
1. Lead from the top
2. Drive a global social change movement
3. Intrasectoral & multidisciplinary collaboration
4. Innovative capacity building program
5. Over 200 UFIT operators worldwide
Global Impact

Sustainable Development Goals

UNICEF

United Nations Human Rights Office of the High Commissioner

MINEPS VI
KAZAN 2017

United Nations Educational, Scientific and Cultural Organization

Sixth International Conference of Ministers and Senior Officials Responsible for Physical Education and Sport

Universal Transformational Management Framework (UTMF)

Conceived by & for Diversity

Fitness Federations
Manufacturers
Register of Exercise Professionals
Fitness Training Providers
Fitness clubs
Disability service providers

American National Standard

RESNA

for Inclusive Fitness—
Volume 1: Inclusive Fitness Environments
“I am impacted on the way I view UFIT on a level of continuing to enrich the population I truly enjoy working with. I am impacted on the value of this program more now than when I took the training”.

UFIT Fitness professional

**Fitness Professionals**

1. Increase of self-efficacy
2. They highly valued their knowledge acquired around ways to adapt exercises for people with disabilities & exercise planning and programming for people with disabilities.

Significant positive impact on staff morale, development and retention was cited.

**UFIT Clubs**

- Clubs benefited from:
  1. Professional education and lifelong training;
  2. The development of inclusive policies;
  3. Creation of inclusive fitness environments to democratise access to health and wellbeing to all citizens, including those with disabilities

The clubs find great value in the UFIT brand

**UFIT Participants**

Participants improved not only their physical wellbeing but also their social and emotional skills. The impact of this intervention went beyond the health clubs and fitness centres.

All participants named their trainers as a key component

Participants reported positively on their intention to continue working out at their fitness centre.
Visit
www.justdoufit.com
http://www.sportandhumanrights.unescoittralee.com/

Contact:
catherine.carty@mtu.ie

Catherine Carty
Jon Walker
Product Manager – Freestanding Play & Fitness
150 PlayCore Drive
Fort Payne, AL 35967
jon.walker@gametime.com

Lloyd Reese
VP Technical Product Management
544 Chestnut Street
Chattanooga, TN 37402
lloyd.reese@playcore.com
“Accessible to and Usable by”

• Achieving “program access” is well beyond that of physical access

• Fitness spaces may meet the minimum standards, but users with disabilities may still have nothing to do and very little equipment to use

• Designing a fitness environment to be “accessible to and usable by” all persons with disabilities, may require going beyond the minimum
Development Partnership and Use Studies

- Worked with Development Partners:
  - Rick O’Rear - Recreation Division Manager at City of Chattanooga
  - Christopher Noel - Accessibility Coordinator at New York City Parks

- This led to:
  - An increased understanding of how to apply the data and metrics to function of the activity.
  - Discovery of the need for Universal Designs that allow people with or without disabilities to exercise together
  - Need for improved paths of travel and access for persons in a mobility device
Function and Requirements

• Implemented back support on Universally Designed products for the user’s chair to rest against

• Added additional handhold variations to allow for additional muscle group engagement

• Raised Accessible Chin-Up Bar height to go beyond average reach range and allow for user’s ability to achieve full arm extension
Adjustments to Existing

• Raised Accessible Chin-Up Bar height to go beyond average reach range and allow for user’s ability to achieve full arm extension
Accessible Industry Standards

- Worked with Development Partners:
  - Christopher Noel - Accessibility Coordinator at New York City Parks
  - Mt. Sinai Hospital in NYC
- Available and Accessible to everyone
- Increase social engagement / promote friendships
Therapeutic Options

- Developed a grouping of products to focus on low impact and reach range activities
- Implemented soft and textured surfaces to assist with grip
- Designed an ergonomic comfort seat with additional support
Validation and Research

Dr. Michael Suk, M.D., J.D., MPH
Chairman of Orthopedic Surgery, Geisinger Health System, Danville, PA
Former White House Fellow-US Department of the Interior, Healthier US Initiative
Author of numerous scientific articles
Former Senior advisor to National Park Service

Dr. Gary Liguori, Ph.D.
Dean of the College of Health Sciences, University of Rhode Island
American Association of Health and Disability Board Member
Scientific Advisory Board Chair-GOfit
Senior Editor first edition ACSM Guidelines for Exercise Testing and Prescription

Dr. Thom McKenzie, Ph.D.
Emeritus Professor of Exercise and Nutritional Sciences, San Diego State Univ.
Former Adjunct professor, Dept of Pediatrics, University of California, San Diego
Author of over over 200 published papers
Investigator on 14 multidisciplinary research projects-National Institute for Health
Universal Design

- Accessible equipment designs are usable and functional for persons with or without disabilities
# Well Rounded Exercise Program

<table>
<thead>
<tr>
<th>Core</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Braces spine and improves efficiency of upper &amp; lower body movement. Promotes balance and stability. Improves functional fitness and and movement in everyday tasks.</td>
<td>Reduce risk of falls, improves coordination, overall athletic skill, and posture. Promotes kinesthetic awareness. Increases all-over tone and control when moving body mass over a changing base of support.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Aerobic</th>
<th>Muscle</th>
<th>Flexibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilizes large muscle groups and increases heart rate. Engages heart, lungs, blood vessels, improving efficiency.</td>
<td>Increases bone strength, boosts metabolic rate, slows or reverses age-related muscle loss. Has a beneficial effect on cognitive ability, insulin sensitivity, and depression.</td>
<td>Improves range of movement, joint motion, and posture. Relieves stress, improves feelings of well-being. Reduces post exercise soreness while improving physical performance.</td>
</tr>
</tbody>
</table>
Equipment Benefits
Space Typologies

Fitness Cluster

Fitness Trail
Product Selection

• Worked with New York City Parks to select a grouping of approved Accessible Outdoor Fitness Products to be included in future projects
Accessible Routes

- ASTM F3101-15 states “Outdoor fitness equipment placement shall meet DOJ 2010 Standard for Accessible Design requirements for accessible routes, passage, turning areas and surfacing of applicable standards.”

- Worked with Bill Botten to ensure adequate routes of travel to the equipment and mobility device clear spaces are identified for layout.

- Implemented CAD blocks and resources for project managers and designers to use when developing spaces.
Final Application
Contact Information and Resources

PlayCore Resources
• Questions
  • core@playcore.com
• Request Outdoor Adult Fitness Guidebook
  • www.playcore.com/programs/outdoor-adult-fitness
• Newsletter
  • www.playcore.com/newsletter
• Funding Tool
  • www.playcore.com/funding
• Resources
  • www.playcore.com/resources
• COVID19 Resources
  • www.playcore.com/COVID-19-play-recreation-resources
Ileana Rodriguez

Cuba- American

Master in Architecture

Paralympic Swimmer – LONDON 2012

Business Owner

Houston Planning Commission

Chef de Mission Refugee Paralympic Team - Tokyo 2020

Athlete Representative for the Americas Paralympic Committee
For every person with a disability, three more are affected.
Accessibility + Design = Inclusion

Olympic and Paralympic Training Center
QUESTIONS for Panel 3?

You may type and submit questions in the Q&A Area
Thank you for Joining us today.

This concludes our event. This event has been recorded and the recording will be available on the Access Board’s homepage and its YouTube Channel soon.
Meeting of the U.S. Access Board will resume with regular business at 3:30 p.m. ET
Moving Forward:

Access to Inclusive Fitness Equipment