



# 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](http://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

# NCHPAD



# 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

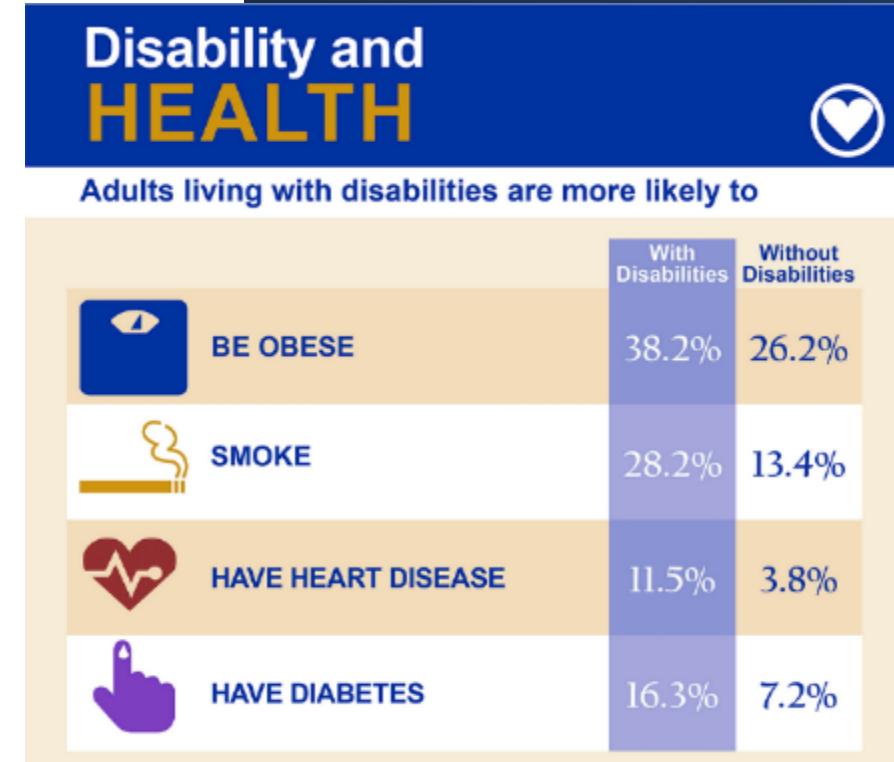
- Disability is especially common in older adults, women and minorities.
- 2 in 5 adults age 65 years and older have a disability
- 1 in 4 women have a disability.
- 2 in 5 non-Hispanic American Indians/ Alaska Natives have a disability.





# Disability Impacts All of Us

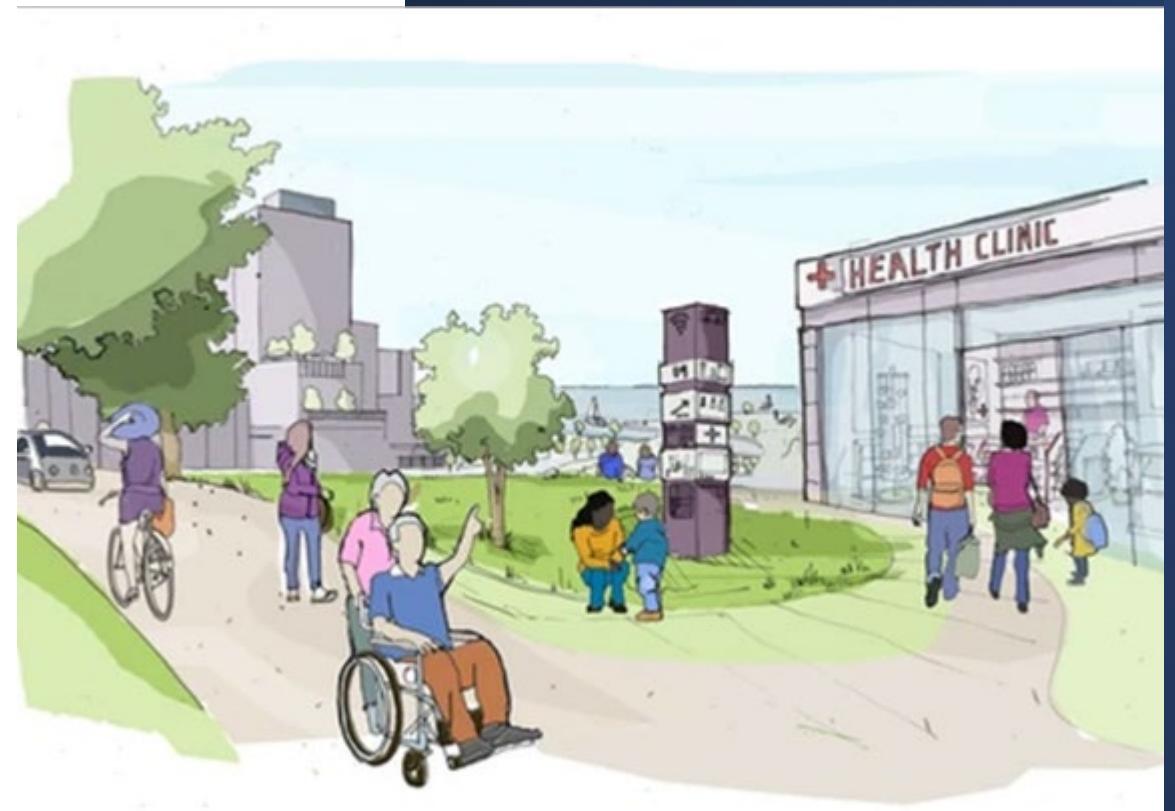
- Adults with disabilities are **2-3 times more likely** to have heart disease, stroke, diabetes, or cancer than adults without disabilities
- **60% of all adults with disabilities get no aerobic physical activity**, an important health behavior to help avoid these chronic diseases
- **38% higher** obesity rates for youth with a disability
- Disability is a health disparity NOT a health outcome!

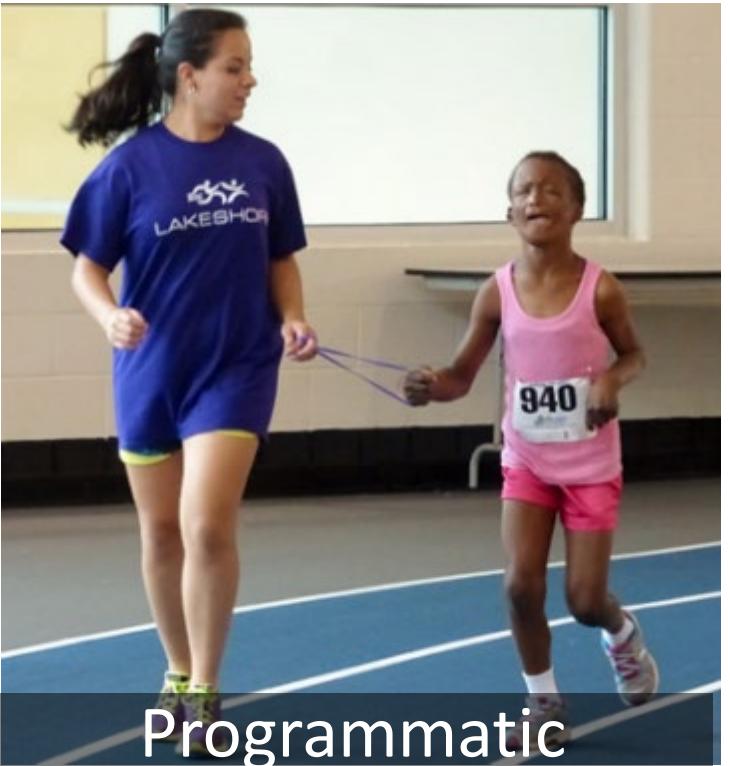




# Health of People with Disability

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





Programmatic



Attitudinal



Architectural

# Barriers to Physical Activity



# 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





► ⚡ | [WWW.NCHPAD.COM](http://WWW.NCHPAD.COM)

# Staying Healthy and Active

at home



## Exercising at Home

This playlist is packed full of exercises you can do from home.



## Intro to Exercise

If you are new to exercising with a disability this video series is for you!



## Mindful: A Meditation Series

Learn how to make mindfulness a part of your every day life and improve your mental health.



## How To:

In this video series you can learn how to choose a chair, how to transfer, how to drive a car and more.



## Nutrilab with Chef Joon

Follow along as Chef Joon prepares nutritious meals.



## Inclusive Yoga

A full length inclusive yoga session.

# Resources



Building Healthy Inclusive Communities

#### 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](http://www.ada.gov) or other similar documents such as: <https://adata.org/guide/planning-guide-making-temporary-events-accessible-people-disabilities>

NCHPAD  
1800 900 8086  
[email@nchpad.org](mailto:email@nchpad.org)

# Exercise From Home with Exercise Bands



## Workout

NATIONAL CENTER ON HEALTH, PHYSICAL ACTIVITY & DISABILITY  
**NCHPAD**  
[nchpad.org](http://nchpad.org)

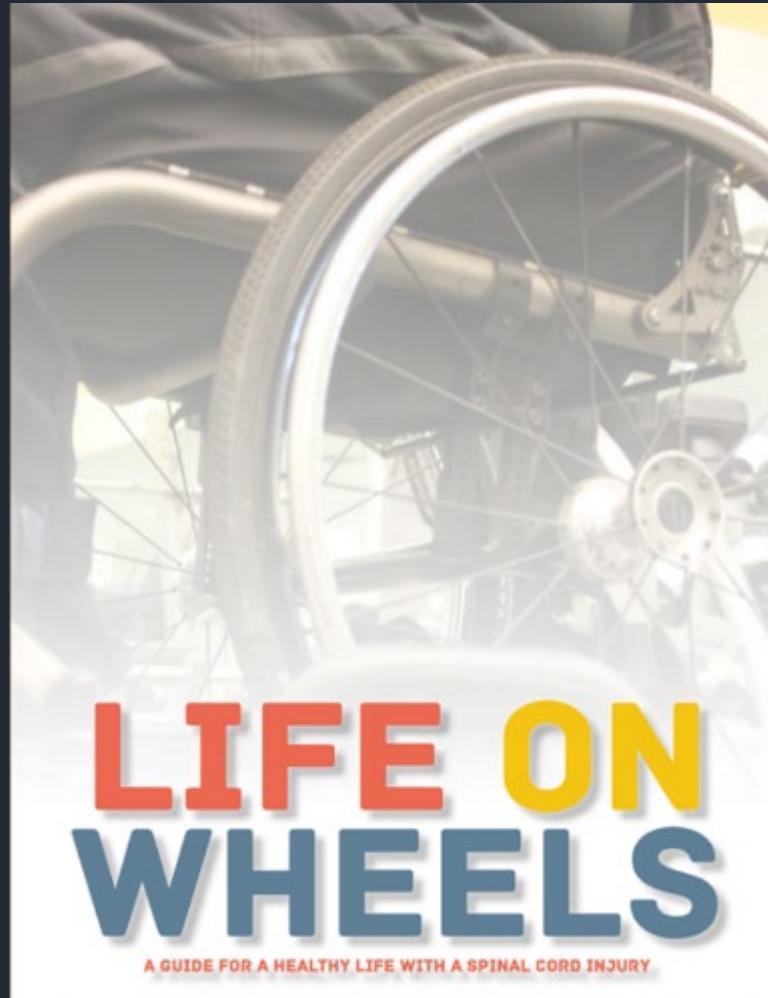
For more exercise options, go to [www.nchpad.org](http://www.nchpad.org)



## GUIDELINES FOR DISABILITY INCLUSION IN PHYSICAL ACTIVITY, NUTRITION, & OBESITY PROGRAMS AND POLICIES

### Implementation Manual

Online at [www.centerondisability.org/docs/Guidelines\\_Disability\\_Inclusion\\_Implementation\\_Manual.pdf](http://www.centerondisability.org/docs/Guidelines_Disability_Inclusion_Implementation_Manual.pdf)



Hosting Inclusive Virtual Wellness

[www.nchpad.com](http://www.nchpad.com)

**NCHPAD**  
NATIONAL CENTER FOR DISABILITY PHYSICAL ACTIVITY & RECREATION

## 9 Hosting Inclusive Virtual Wellness Activities

**Overview**

Here are some top tips to make sure your virtual wellness activity is accessible to everyone with or without a disability.

**Be Considerate**

- Plan ahead to make sure your course is appropriate and accessible for all.
- Consider the needs of individuals with a visual or hearing impairment as well as those with physical, intellectual or developmental disabilities.

**Outline**

- Visual Environment
- Instruction
- Platform Accessibility
- Learning Process

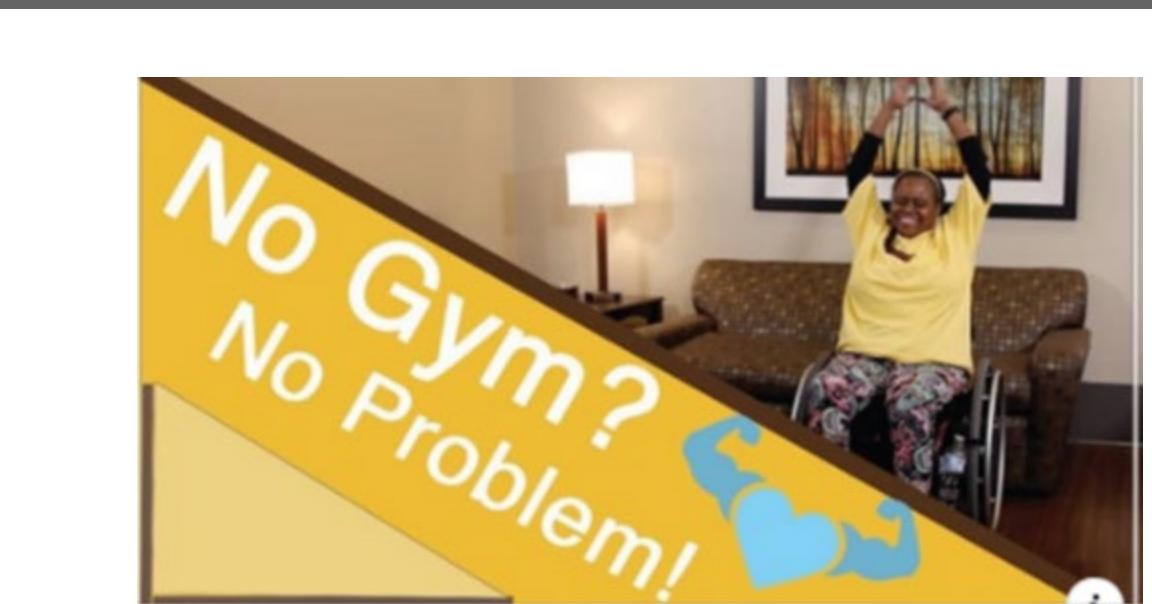
# YouTube

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



A YouTube video thumbnail for "How To: Choose a Wheelchair" by NCHPAD. The thumbnail features a woman in a wheelchair smiling. The video duration is 12:42. Below the thumbnail, the title "How To: Choose a Wheelchair" is displayed, followed by the source "National Center on Health, Phy...", the view count "423K views", and the upload date "7 years ago". There is also a "cc" button for closed captions.

A YouTube video thumbnail for "WARM UP Roll Shoulders Back" by NCHPAD. The thumbnail shows two people, one standing and one in a wheelchair, performing shoulder rolls. The video duration is 00:08. A stopwatch icon indicates the duration. Below the thumbnail, the title "WARM UP Roll Shoulders Back" is displayed, followed by the source "National Center on Health, Phy...", the view count "423K views", and the upload date "7 years ago". There is also a "cc" button for closed captions.





# 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



**Bill Botten**  
**Training Coordinator**  
**US Access Board**



Americans with Disabilities  
Act (ADA)

Architectural Barriers Act  
(ABA)

Minimum Requirements

# **Types of Facilities Covered**

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

**ABA – FEDERALLY  
FUNDED 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

## §236 - Exercise Machines and Equipment



### §236.1 General

At least one of each type of exercise machine and equipment shall comply with §1004.

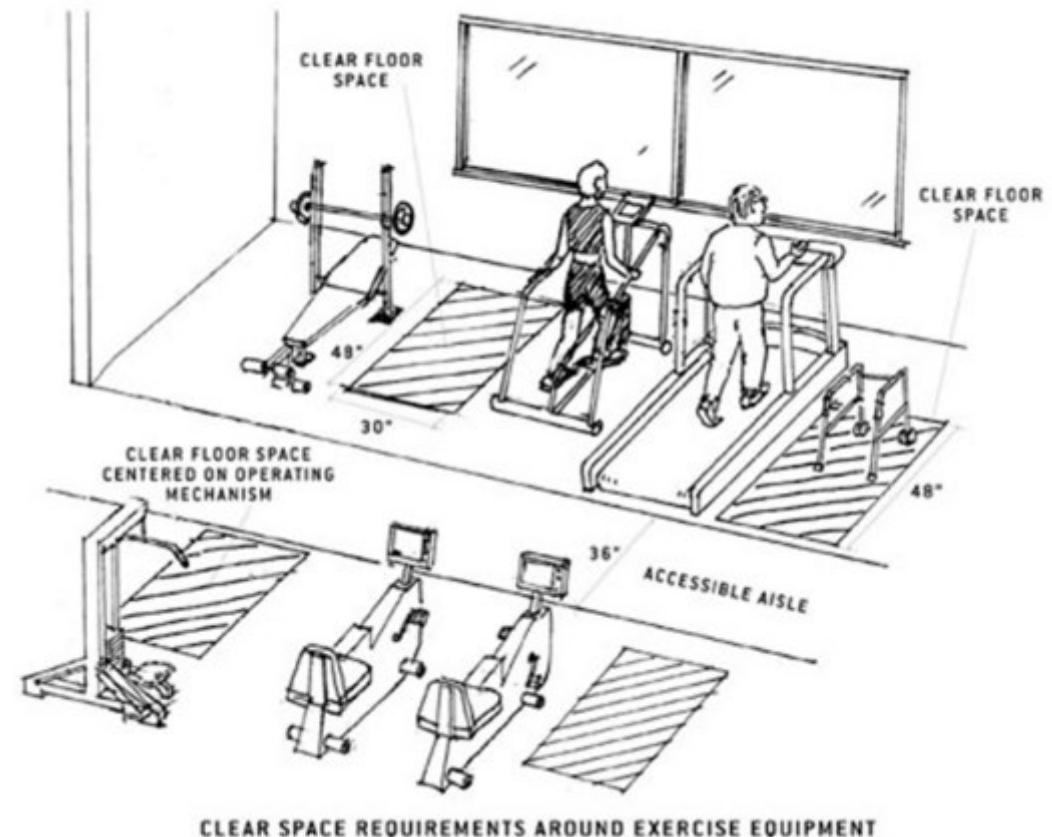
**Advisory:** Most strength training equipment and machines are considered different types. Where operators provide a biceps curl machine and cable-cross-over machine, both machines are required to meet the provisions in this section, even though an individual may be able to work on their biceps through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

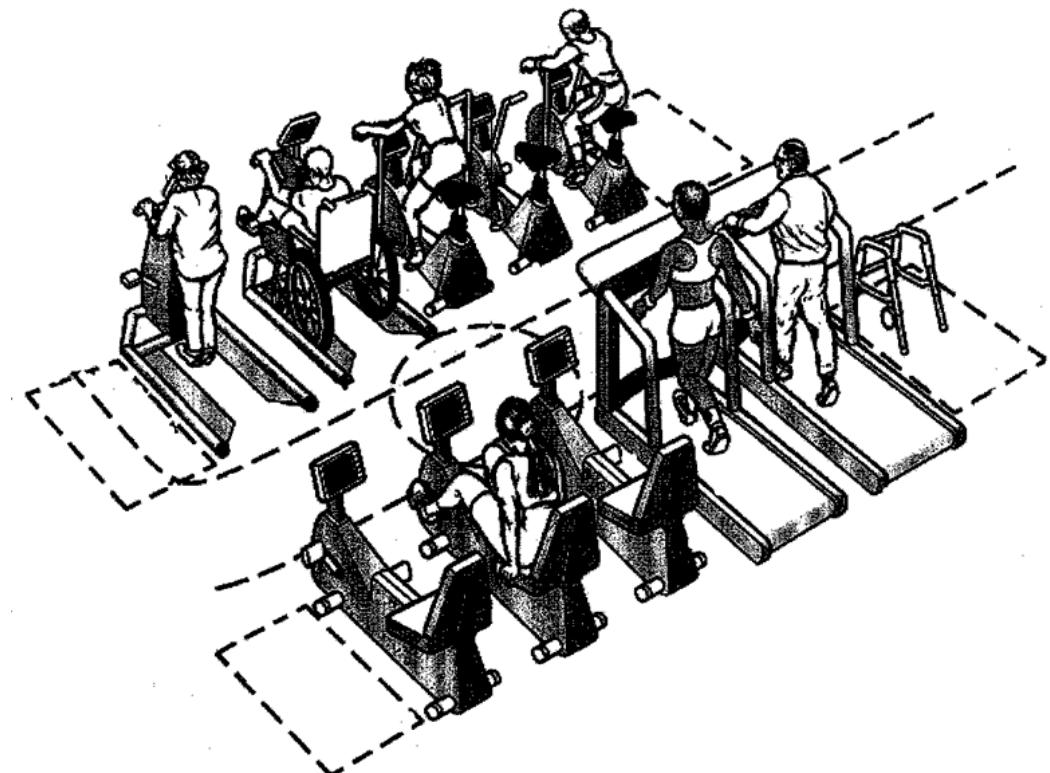
## §1004.1 Clear Floor Space

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).



Includefitness.com

# Further Information

U.S. Access Board

[ta@access-board.gov](mailto:ta@access-board.gov)

[www.access-board.gov](http://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

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

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



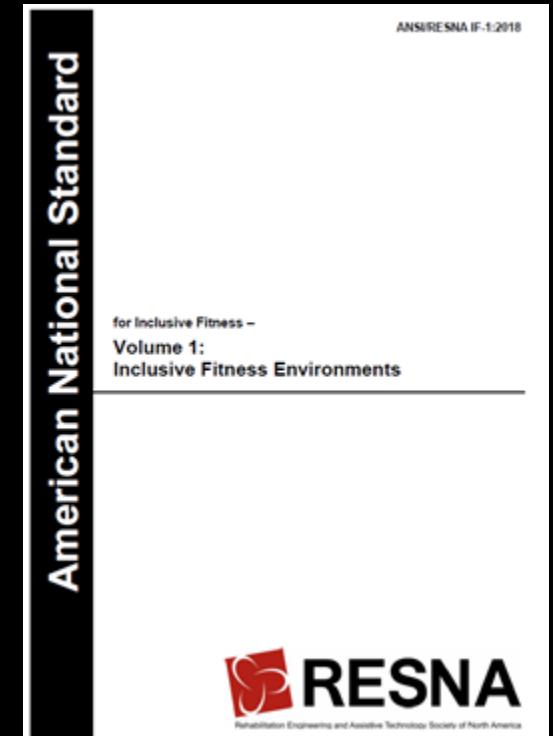
**So what does it mean  
to be inclusive?**



# RESNA IF-1:2021

# Inclusive Fitness Environments

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**

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

## Section 6: Policies

So new, the full title is still to be drafted

Best-practice policies

Benefits of hiring people with disabilities

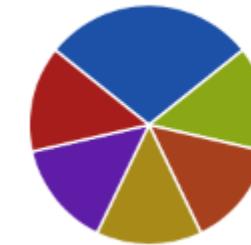


# RESNA IF Experts Needed

Fitness equipment  
manufacturers

Academic researchers

**Interest Categories**



- 4 (28.6%) Fitness Facility Staff/Trainers
- 2 (14.3%) Consumers, Advocates, and C
- 2 (14.3%) General
- 2 (14.3%) Government
- 2 (14.3%) Research & Development
- 2 (14.3%) Test labs/testing assessment

Application and standards order form:

<https://www.resna.org/AT-Standards/Inclusive-Fitness-IE>

Email: [stephanie@beneficialdesigns.com](mailto: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.



[www.beneficialdesigns.com](http://www.beneficialdesigns.com)

[mail@beneficialdesigns.com](mailto:mail@beneficialdesigns.com)

775 783 8822 voice

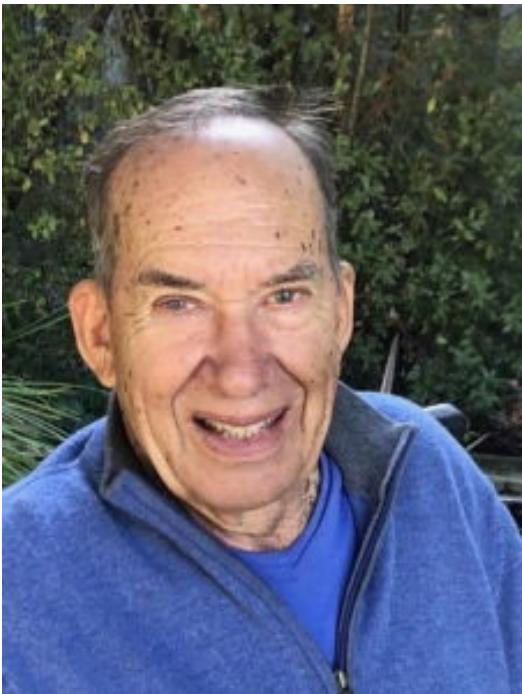
775 201 8850 fax





# Mobility Fitness

— *Fitness for All* —



[richard@mobilityfitness.org](mailto:richard@mobilityfitness.org)  
<https://mobilityfitness.org>

# Strength

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.



# FreeMotion DUAL CABLE CROSS



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.

# VR3 Total Access Chest Press



## Key Features

Locking Plunger Adjustment



Adjustable Lever Arm



Upright Back Seat Support



Twist Select



- 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 ( $10^\circ$ ) 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

# SCIFIT STEPPER



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.

# OCTANE RECUMBENT ELLIPTICAL



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



## Key Features

Easy access control keys



Central seat adjustment



Clear easy to use console



High visibility foot pedals and straps



# Total Access - Treadmill Model 750T IFI

## Key Features

Multiple Belt Logos



Raised Console Iconography



Emergency Kill Cord Switch



Colour Contrasted Deck & Belt



- 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

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- 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:**

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# Previous Research

66

**Barstow, B. A., Vice, J., Bowman, S., Mehta, T., Kringen, S., Axelson, P., & Padalabalanarayanan, S. (2019). Examining perceptions of existing and newly created accessibility symbols. *Disability and Health Journal, 12(2), 180-186.***

**Vice, J., Barstow, B. A., Bowman, S., Mehta, T., Kringen, S., Axelson, P., & Padalabalanarayanan, S. (2020) Effectiveness of the international symbol of access and inclusivity of other disability groups, *Disability and Health Journal, 13, doi.org?10.1016/j.dhjo.2019.100836***



# Current Project Aims

**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 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 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 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

68

- 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

69

- **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

70

- **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)

71

- 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

72

The screenshot shows the rectech.org website interface. At the top, there is a navigation bar with a search bar and a "SEARCH" button. Below the navigation bar is the rectech logo and the website address "www.rectech.org". The main content area features a map of Birmingham, Alabama, with green dots indicating resource locations. A sidebar on the right contains a "Filters" section with dropdown menus for "Resource Type", "Location", "Accessibility", and "Advanced Accessibility". The "Resource Type" menu is expanded, showing a list of activities with counts: All Activities (239), Fitness Activities (53), Weightlifting (51), Weight Training (48), Personal Training (42), Fitness-Group Activities (25), Yoga (18), Pilates (11), Aerobics (17), and Gymnastics (7). The "Weightlifting" option is highlighted. At the bottom of the page, there is a footer with links for "HOME", "SUBMIT A NEW RESOURCE", "GET ALERTS", and "CONTACT US". The footer also mentions "POWERED BY THE Ushahidi PLATFORM".

rectech  
www.rectech.org

RESOURCES SUBMIT A NEW RESOURCE CONTACT US

Map

1-20 of 239 Resources

Birmingham

Filters

Resource Type

- All Activities 239
- Fitness Activities 53
- Weightlifting 51
- Weight Training 48
- Personal Training 42
- Fitness-Group Activities 25
- Yoga 18
- Pilates 11
- Aerobics 17
- Gymnastics 7

Location

Accessibility

Advanced Accessibility

Reset all filters

SEARCH

HOME | SUBMIT A NEW RESOURCE | GET ALERTS | CONTACT US

POWERED BY THE Ushahidi PLATFORM

# AIMS Features

73

SEARCH

**rectech**  
[www.rectech.org](http://www.rectech.org)

RESOURCES SUBMIT A NEW RESOURCE CONTACT US

List Map « 1 1-20 of 32 Resources

**Riviera Fitness- Homewood**  
VERIFIED  
Amenities offered at Riviera Fitness: Women's Only Workout area Cardio Theater Group Fitness Room Spinning Room 1 on 1 Personal Training...  
372 Palisades Blvd, Birmingham, AL 35209, USA 0.75mi

**Lakeshore Foundation**  
VERIFIED  
Lakeshore is a 501(c)3 non-profit organization which serves people with physical disabilities throughout Alabama, across the country and around...  
4000 Ridgeway Dr, Birmingham, AL 35209, USA 1.08mi

**OT\*\* D1 Birmingham**  
VERIFIED  
Sport training facility specializing in football.  
1615 Independence Dr, Homewood, AL 35209, USA 1.36mi

**YMCA-Shades Valley**  
VERIFIED  
Video Tour: <https://www.youtube.com/watch?v=o6vjVzZTeM> Established in 1884 the YMCA of Birmingham is a nonprofit dedicated to strengthening...  
3551 Montgomery Hwy Birmingham AL, 35209 1.44mi

**Mountain Brook YMCA**  
VERIFIED  
Mountain Brook Y is a nonprofit organization dedicated to strengthening communities through youth development, healthy living and social responsibility.  
2401 20th PLS, Birmingham, AL 35223, USA 1.73mi

**Planet Fitness- Vestavia**  
VERIFIED

**Filters**

Resource Type

Location

33.48316, -86.80160

Valley Ave

Oxmoor Rd

Broadway St

Sauter Rd

Homewood

Google

10 mi

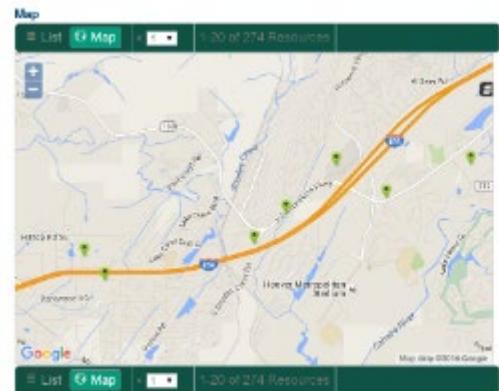
Birmingham, AL 35209, U

\* If you can't find your location, please click on the map to pinpoint the correct location.

Accessibility

Advanced Accessibility

# Accessible Camping



## Filters

### Resource Type

- Handcycling 1
- In-Line Skating 1
- Roller Skating 2
- Parks 35
- Wilderness/Adventure 10
- Camping 1
- Fishing 3
- Hiking 6
- Aviation 1
- Flight/Flight Training 1

### Location

### Accessibility

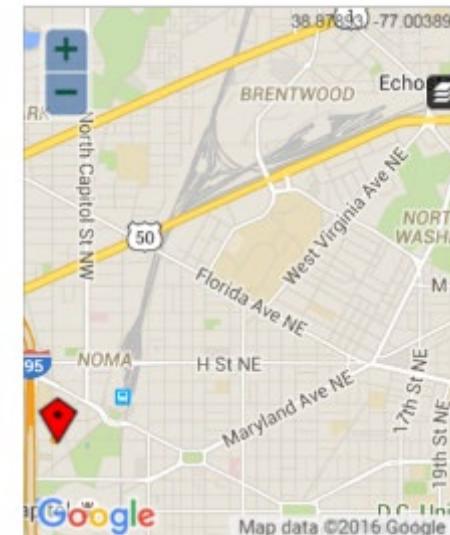
### Advanced Accessibility

Reset all filters

## Filters

### Resource Type

### Location



35226

\* If you can't find your location, please click on the map to pinpoint the correct location.

### Accessibility

### Advanced Accessibility

## Filters

### Resource Type

### Location

### Accessibility

### Advanced Accessibility

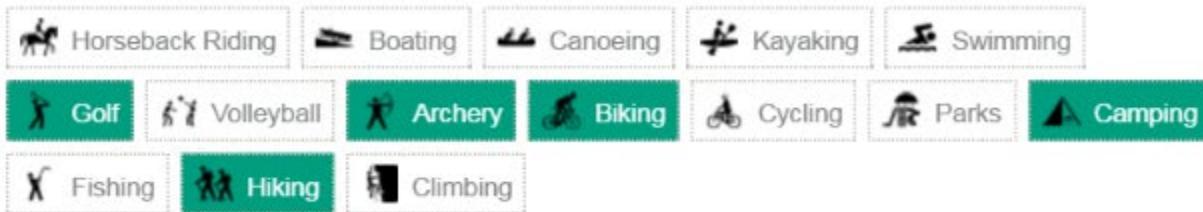
- Parking
- Paths
- Information Material in Accessible Format
- Reception Desk
- Restroom Entrance
- Restroom Stall
- Restroom Sinks
- Level Change
- Signage
- Locker Room/Shower
- Shower Stall
- Multiuse Trail
- Free Resource
- Free Activities

Reset all filters

SEARCH

# 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  
[«Less Information](#)

⌚  
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  
[«Less Information](#)



## External Reviews



### Oak Mountain State Park



25 Reviews



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](#)

## 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

# AIMS- Reviews based on accessibility

76

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](mailto:email@rectech.org)

**rectech**  
www.rectech.org

RESOURCES SUBMIT A NEW RESOURCE CONTACT US

### Submit a Resource

Resource Name \*

UAB rec center

Resource Address \*

Example: Corner of City Market, 5th Street & 4th Avenue, Johannesburg

1501 u

1501 University Boulevard Birmingham, AL, United States

1501 Uab Drive South Birmingham, AL, United States

1501 U.S. 27 Summerville, GA, United States

1501 University Drive Northwest Huntsville, AL, United States

1501 US Highway 19 North Tarpon Springs, FL, United States

powered by Google

Categories \*

Fitness Activities

Fitness-Group Activities

Track & Field

Equine

Martial Arts/Self-Defense

Other Activities

Recreation

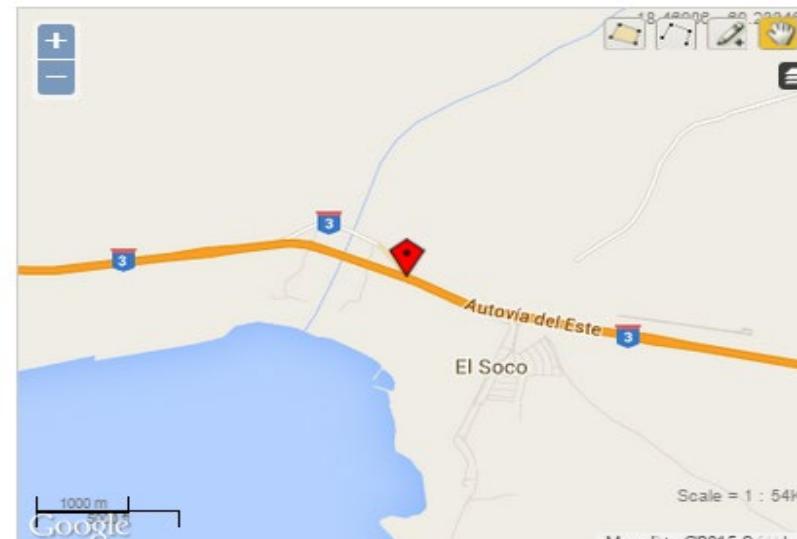
Wilderness/Adventure

Snow Activities

Therapeutic

Triathlon

Educational



#### Upload Photos

Choose File No file chosen



Submit

# AIMS Accessibility

## Getting into the Building:

(Skip for parks or sites with no building) Observe the main entrance to the building. It may be necessary to walk/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
- None of the above
- Door threshold is flush with the ground or only slightly raised /less than or equal to 1/4 inch/

### 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 5lbs/
- Door handles operable with a closed fist without pinching or grasping or twisting 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 interpret materials
- None of the above
- No promotional materials
- N/A no programs

# AIMS Usability

## 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**

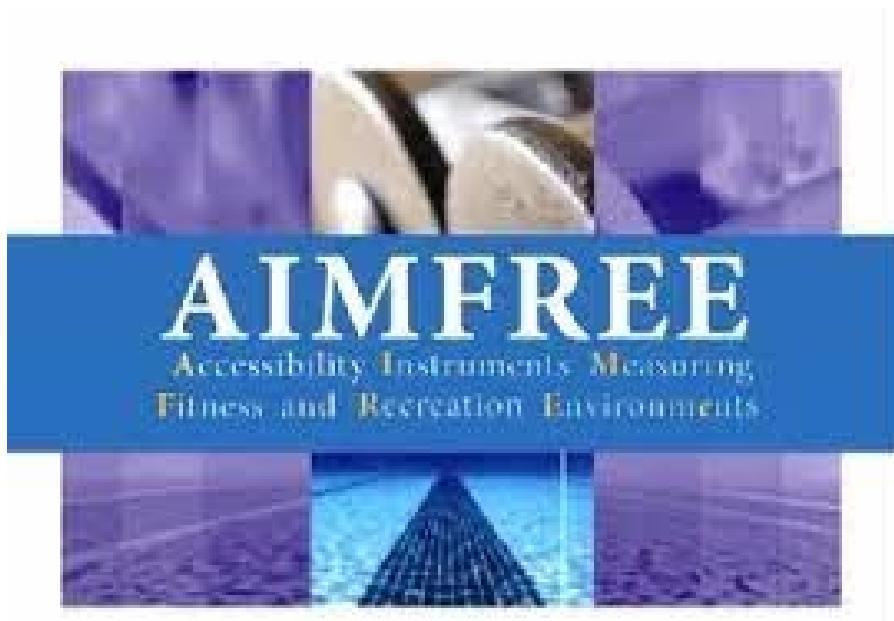
**10 end users/5 trainers**

- **Interview takeaways**
  - Home based exercising
  - Access to trainers

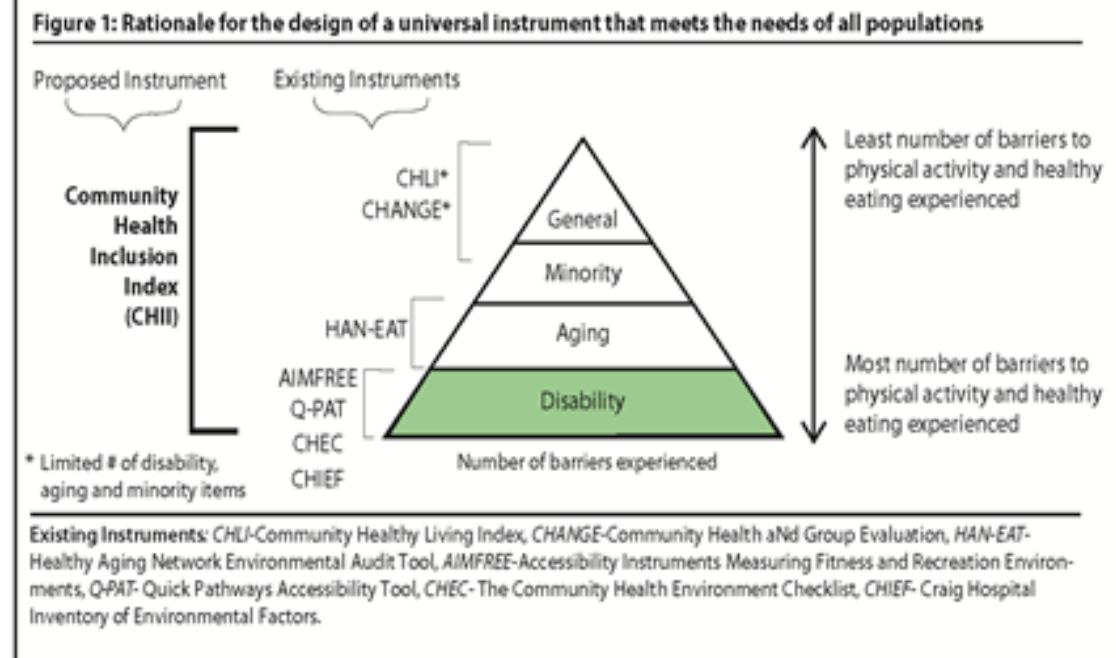
**Product status:**

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

# Assessment Tools



## A Universally-Designed Tool



2017 Apr;10(2):214-221.  
doi: 10.1016/j.dhjo.2016.12.011. Epub 2016 Dec 30.

## Fitness facilities still lack accessibility for people with disabilities

[James H Rimmer<sup>1</sup>](#), [Sangeetha Padalabalanarayanan<sup>2</sup>](#), [Laurie A Malone<sup>3</sup>](#), [Tapan Mehta<sup>4</sup>](#)

Affiliations

- PMID: 28143707
- DOI: [10.1016/j.dhjo.2016.12.011](https://doi.org/10.1016/j.dhjo.2016.12.011)

# Contact us



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



**1720 3<sup>rd</sup> Avenue South, Birmingham AL 35022**



**[bbarstow@uab.edu](mailto:bbarstow@uab.edu) ; [Sangee@uab.edu](mailto:Sangee@uab.edu)**



**Website: <https://www.rectech.org>**



# Thank you!



# **QUESTIONS?**

**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

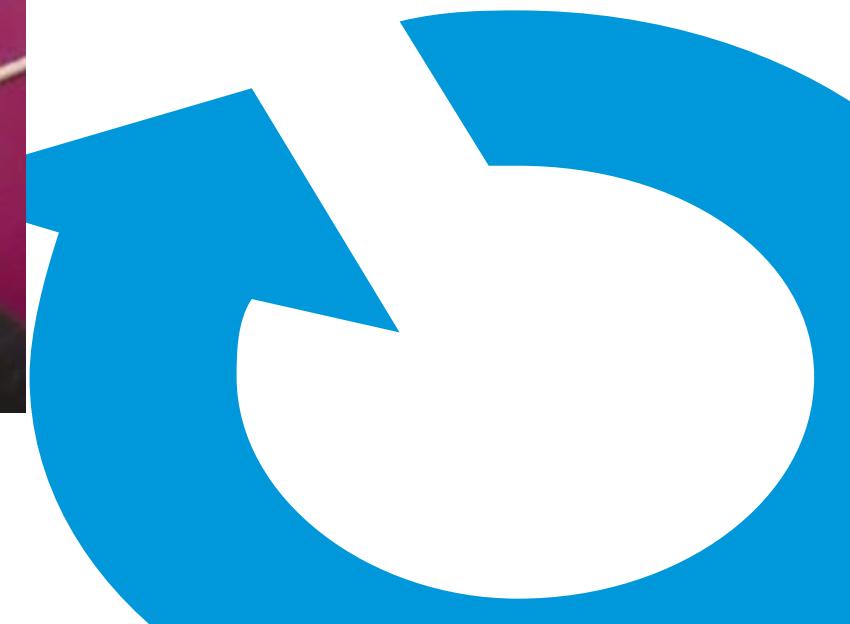
**Jon Walker and Lloyd Reese**

Playcore

**Ileana Rodriguez**

I Design Access, LLC

# Gus LaZear



**ABILITY360**  
SPORTS & FITNESS CENTER

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

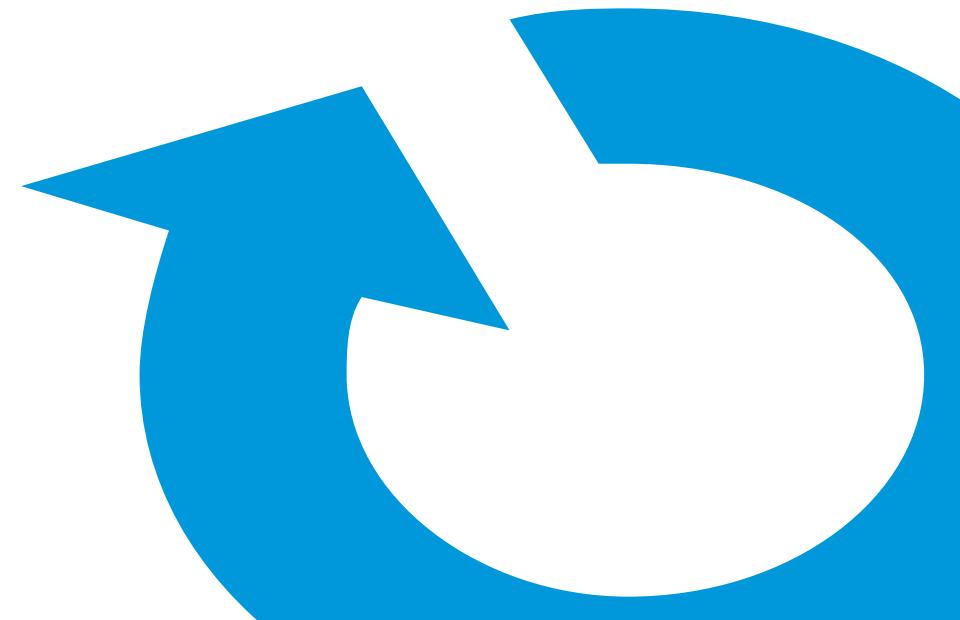
Listen to your members and your community

There is not a one size fits all

Pilot programs

Do what you say you are going to do

Maintain member trust



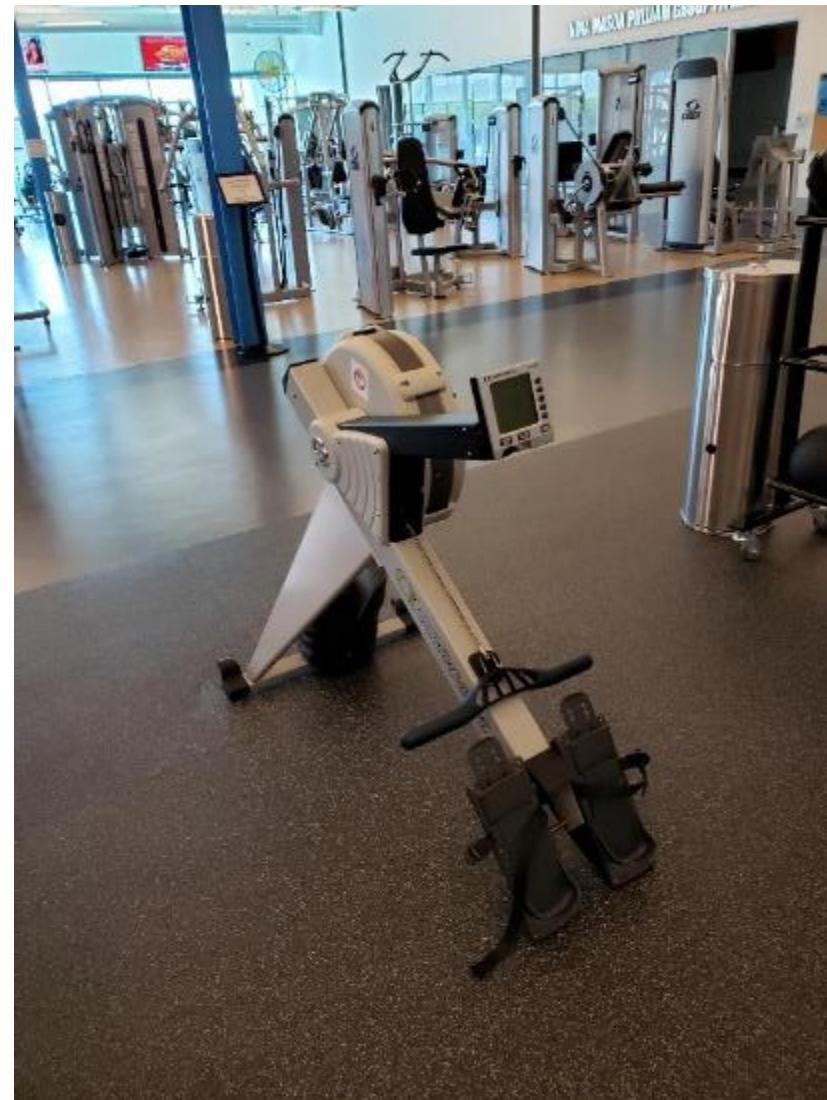
# Equipment



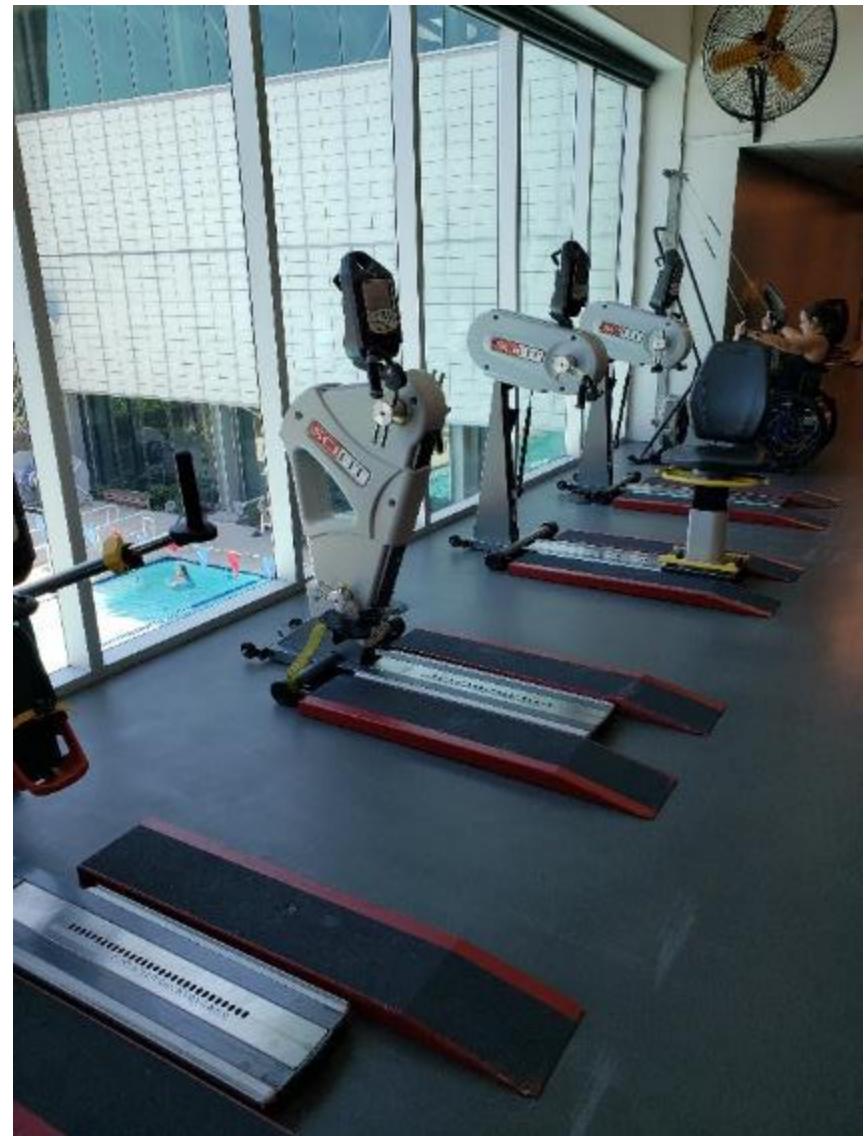
# Equipment



# 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**







United Nations  
Educational, Scientific and  
Cultural Organization



- UNESCO Chair on Transforming
- the Lives of People with Disabilities through
- Physical Education Sport, Fitness and Recreation,
- Munster Technological University, Ireland
- 



## US Access Board Inclusive Fitness Event

### July 14<sup>th</sup> 2021

UNESCO Chair Project Manager

CATHERINE  
CARTY



U fit



Universal Fitness Innovation and Transformation

[www.justdoUFIT.com](http://www.justdoUFIT.com)

**93%**

**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**



**Fitness Sector**



# Global Impact

## SUSTAINABLE DEVELOPMENT GOALS

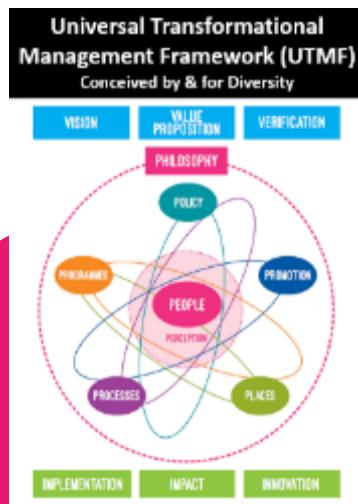


### GUIDE FOR BUSINESS ON THE RIGHTS OF PERSONS WITH DISABILITIES

How business can respect and support the rights of persons with disabilities and benefit from inclusion



United Nations Educational, Scientific and Cultural Organization  
Sixth International Conference  
of Ministers and Senior Officials Responsible  
for Physical Education and Sport



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



# Sectoral Impact

## American National Standard

ANSI/RESNA IF-1:2018  
for Inclusive Fitness –  
Volume 1:  
Inclusive Fitness Environments



# UFIT Impact

## 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.

"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

## 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.



United Nations  
Educational, Scientific and  
Cultural Organization



- UNESCO Chair on Transforming  
the Lives of People with Disabilities through  
Physical Education Sport, Fitness and Recreation,  
Munster Technological University, Ireland
- 

Visit

[www.justdoufit.com](http://www.justdoufit.com)

<http://www.sportandhumanrights.unescoittralee.com/>

Contact:

[catherine.carty@mtu.ie](mailto:catherine.carty@mtu.ie)

CATHERINE  
CARTY





**Jon Walker**  
*Product Manager – Freestanding Play & Fitness*  
150 PlayCore Drive  
Fort Payne, AL 35967  
[jon.walker@gametime.com](mailto:jon.walker@gametime.com)



**Lloyd Reese**  
*VP Technical Product Management*  
544 Chestnut Street  
Chattanooga, TN 37402  
[lloyd.reese@playcore.com](mailto:lloyd.reese@playcore.com)



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# “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



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# 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



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# 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



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# 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



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# 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



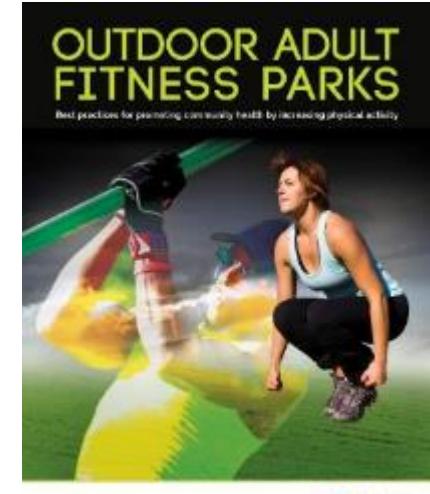
## Dr. Gary Liguori, Ph.D.

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 200 published papers  
Investigator on 14 multidisciplinary research projects-National Institute for Health



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# Universal Design



- Accessible equipment designs are usable and functional for persons with or without disabilities

# Well Rounded Exercise Program

## Core

Braces spine and improves efficiency of upper & lower body movement.  
Promotes balance and stability.  
Improves functional fitness and movement in everyday tasks



## Aerobic

Utilizes large muscle groups and increases heartrate. Engages heart, lungs, blood vessels, improving efficiency.



## Balance

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.



## Muscle

Increases bone strength, boosts metabolic rate, slows or reverses age-related muscle loss. Has a beneficial effect on cognitive ability, insulin sensitivity, and depression.



## Flexibility

Improves range of movement, joint motion, and posture. Relieves stress, improves feelings of well-being. Reduces post exercise soreness while improving physical performance.



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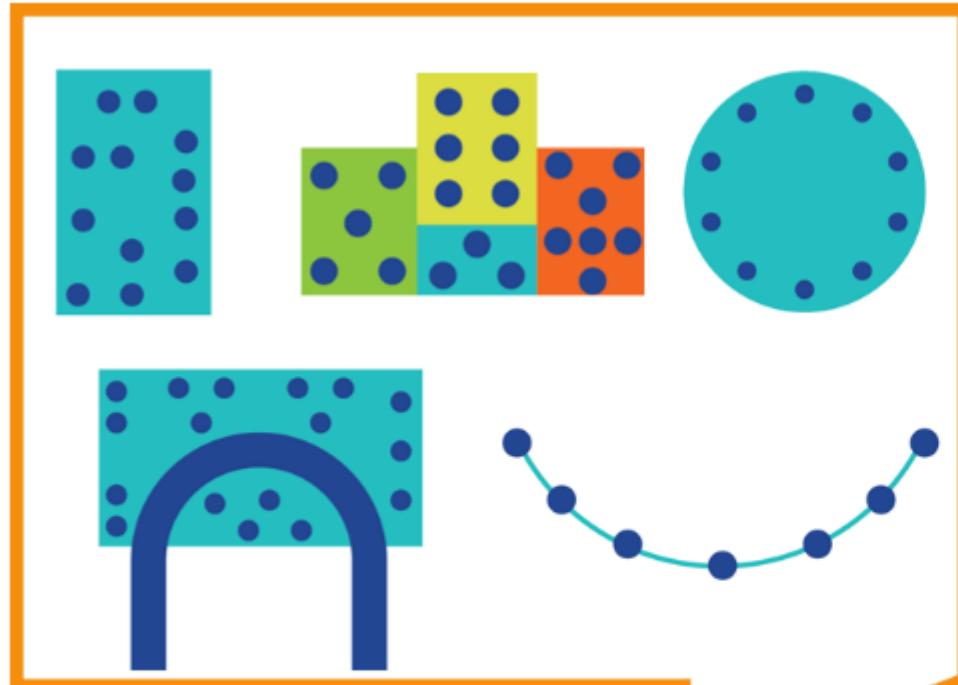
# Equipment Benefits

EQUIPMENT MATRIX		Aerobic	Muscle	Core	Balance	Flexibility	Aligning to Health Benefits and Total Body Fitness	
Cardio Walker/Elliptical	Cycle							
Strengthens lower body muscles while promoting muscular endurance & core stability with balance - Abdominals - Gluteus Maximus - Hamstrings	Strengthens lower body muscles while promoting muscular endurance & core stability with balance - Quadriceps - Gluteus Maximus - Hamstrings							
High Jump	Hurdles	Log Jump	Lat. Pull Down	Traverse or Climbing Wall	Parallel Bars			
Strengthens lower body muscles, promotes muscular endurance & explosive power - Quadriceps - Abdominals	Strengthens lower body muscles, promotes muscular endurance & explosive power - Gluteus Maximus - Hamstrings	Strengthens lower body & core muscles while promoting muscular endurance & explosive power - Abdominals - Gluteus Maximus - Hamstrings	Strengthens upper body & core muscles while promoting muscular endurance & grip strength - Impetus - Anterior Deltoid - Latissimus Dorsi	Strengthens upper body fibers while promoting muscular endurance & grip strength - Impetus - Anterior Deltoid - Latissimus Dorsi	Strengthens upper core muscles - Biceps - Anterior Deltoid - Trapezius - Rectus Major			
Step Up	Bench Dips	Leg Extension	Leg Press	Pull-Up	Push-Up			
Strengthens lower body muscles and core, while promoting muscular endurance, core respiratory endurance and balance - Abdominals - Hamstrings - Glutes	Strengthens upper body & core muscles while promoting muscular endurance - Anterior Deltoid - Gluteus Maximus - Hamstrings	Strengthens lower body muscles & muscular endurance - Quadriceps - Abdominals - Hamstrings	Strengthens lower body muscles while promoting muscular endurance & core respiratory endurance - Abdominal Muscles - Gluteus Maximus - Hamstrings	Strengthens upper body & core muscles - Biceps - Anterior Deltoid - Gluteus Maximus - Hamstrings	Strengthens upper body & core muscles - Biceps - Anterior Deltoid - Gluteus Maximus - Hamstrings			

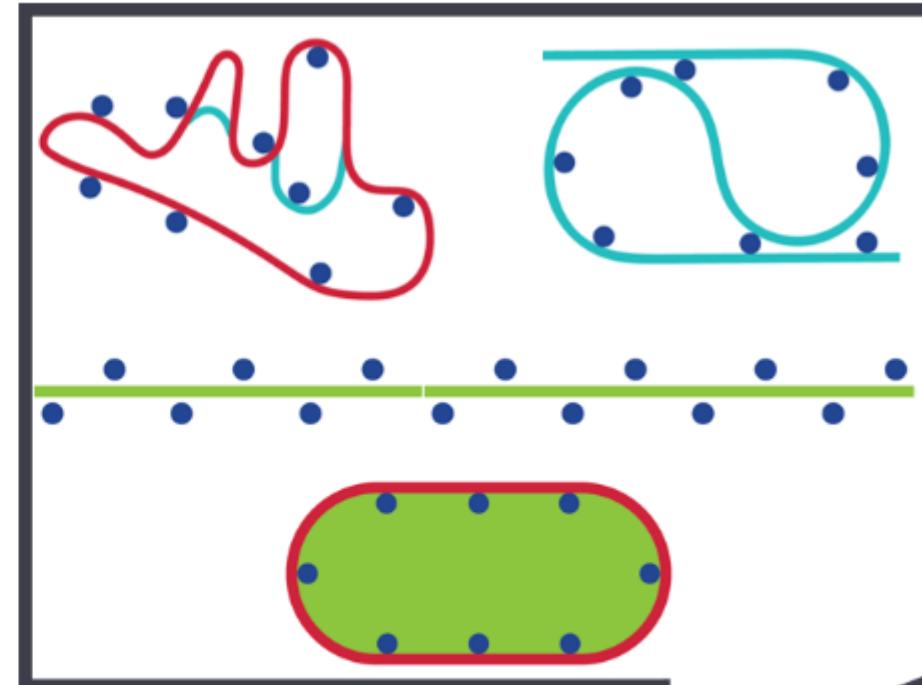
EQUIPMENT MATRIX			Aligning to Health Benefits and Total Body Fitness		
			Indicates Primary Benefit		
Roman Chair Squat	Swinging Rings	Vertical Press	Stepping Pads	Balance Beam	Back Extension
Strengthens back, leg, & core muscles - Abdominals - Gluteus Maximus - Hamstrings - Quadriceps	Strengthens upper body & core muscles - Abdominals - Anterior Deltoid - Rectus "Latissimus Dorsi"	Strengthens upper body & core muscles while promoting muscular endurance - Trapezius - Rhomboids - Anterior Deltoid - Posterior Deltoid	Strengthens lower body & core muscles while promoting balance development - Abdominals - Calfes	Strengthens lower body & core muscles while promoting balance development - Abdominals - Quadriceps - Hamstrings	Strengthens core & back muscles - Abdominals - Gluteus Maximus - Erector Spinae
Vault	Sit-Up	Plyo Box	Skill Trainer	Shoulder Rotator	Functional Trainer
Strengthens upper body & lower body muscles while promoting cardiorespiratory endurance & explosive power - Biceps - Abdominals - Gluteus Maximus - Hamstrings - Calfes	Strengthens core & back muscles - Abdominals - Triceps - Gluteus Maximus	Strengthens lower body & core muscles while promoting muscular endurance & cardiorespiratory endurance - Abdominals - Hamstrings - Calfes	Promotes arm & core flexibility while promoting upper body & core conditioning - Trapezius - Rhomboids - Posterior Deltoid - Anterior Deltoid	Strengthens upper body muscles - Biceps - Anterior Deltoid - Rhomboids - Posterior Deltoid	Promotes overall mobility & flexibility while promoting core & lower body muscle development - Abdominals - Calfes - Gluteus Maximus - Hamstrings
Captain's Chair	Ninja Steps	Balance Board	Knee Lift	ADDITIONAL CONSIDERATIONS	FEATURES & BENEFITS
Strengthens core & back muscles - Abdominals - Obliques	Strengthens lower body muscles & promotes muscular endurance - Abdominals - Quadriceps	Strengthens lower body & core muscles while promoting balance development - Gluteal Muscles - Rectus "Latissimus Dorsi"	Strengthens knee flexors - Abdominals - Calfes - Gluteus Maximus - Quadriceps		
Socialization	Universal Design	Active Aging	Quality		
>Select equipment that offers job-by-job experiences increases inclusivity for socialization. Effective spacing and positioning of the equipment can also facilitate interactions and engagement amongst users.	Consider equipment especially designed to promote accessibility and inclusion. Accessible routes of travel and signage will also require consideration for maximum usage.	Some equipment offers balanced environments. Use hand holds and task supports to provide additional support and stability for older, disabled individuals, or decommissioned users.	It is important to understand product specifications, manufacturer's warranty, and maintenance/recomendations in-order to ensure the product lifecycle.		

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# Space Typologies



Fitness Cluster



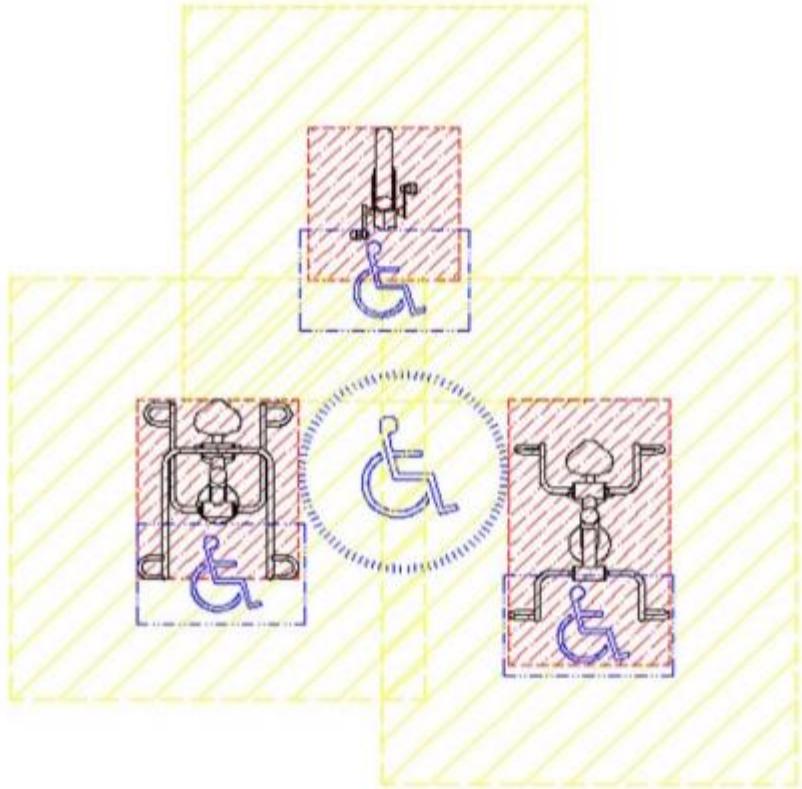
Fitness Trail

# 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



**GameTime®**

A **PLAYCORE** Company

# Contact Information and Resources



## PlayCore Resources

- Questions
  - [core@playcore.com](mailto:core@playcore.com)
- Request Outdoor Adult Fitness Guidebook
  - [www.playcore.com/programs/outdoor-adult-fitness](http://www.playcore.com/programs/outdoor-adult-fitness)
- Newsletter
  - [www.playcore.com/newsletter](http://www.playcore.com/newsletter)
- Funding Tool
  - [www.playcore.com/funding](http://www.playcore.com/funding)
- Resources
  - [www.playcore.com/resources](http://www.playcore.com/resources)
- COVID19 Resources
  - [www.playcore.com/COVID-19-play-recreation-resources](http://www.playcore.com/COVID-19-play-recreation-resources)



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Illeana Rodriguez

Cuba-American

Master in Architecture

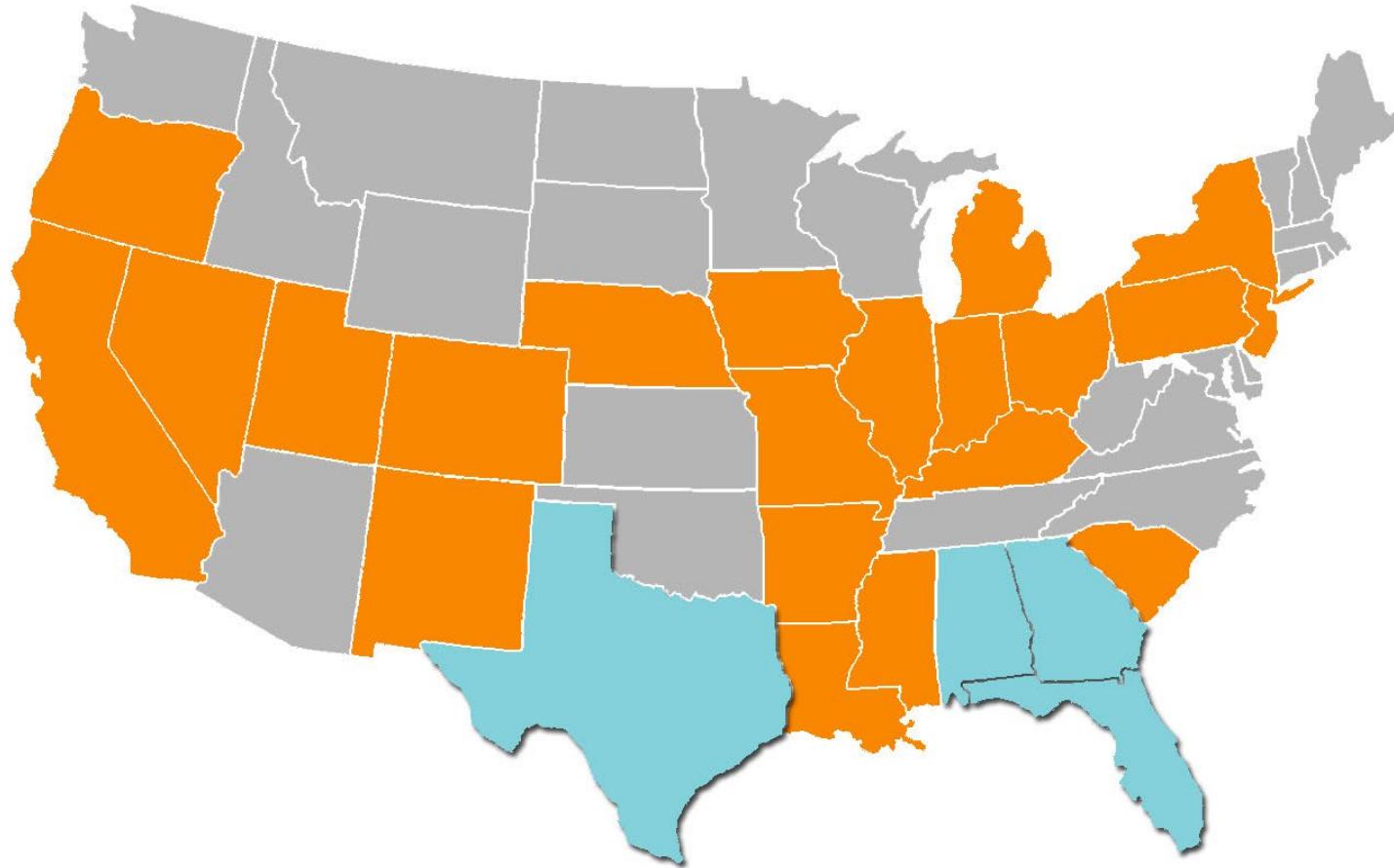
Business Owner

Paralympic Swimmer –  
LONDON 2012

Houston Planning Commission

Chef de Mission Refugee  
Paralympic Team - Tokyo 2020

Athlete Representative for the  
Americas Paralympic  
Committee

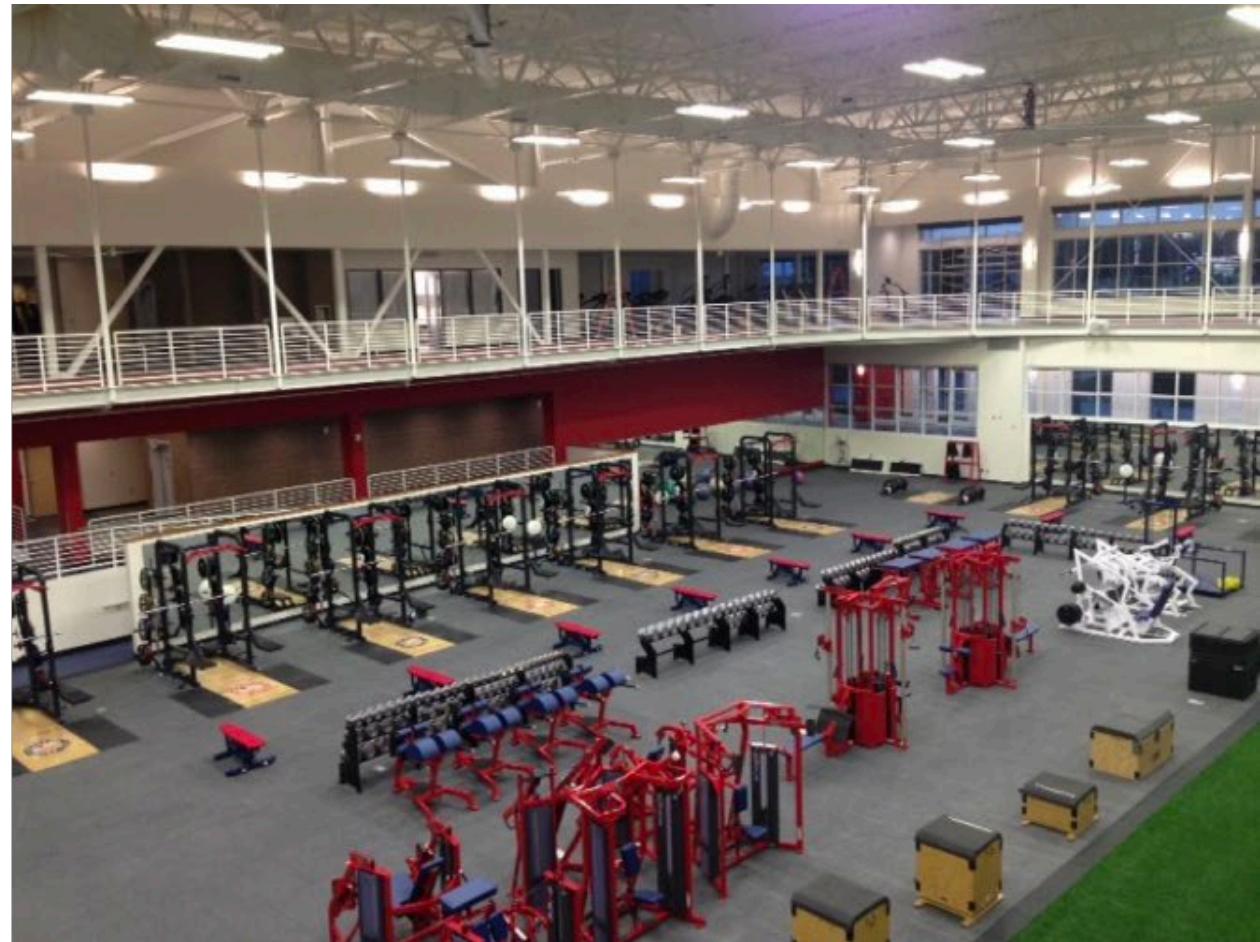


For every person with a disability, three more are affected.



RATIO

Accessibility + Design = Inclusion



Olympic and Paralympic Training Center



# iDESIGN ACCESS

ARCHITECTURE AND ACCESSIBILITY

Ileana Rodriguez  
[i.Rodriguez@idesignaccess.com](mailto:i.Rodriguez@idesignaccess.com)  
(305) 322 0900

# **QUESTIONS?**

**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

