

POLICIES, GUIDELINES, AND STANDARDS TO INCREASE ACCESS TO FITNESS FOR PEOPLE OF ALL ABILITIES

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INTRODUCTION

There is a growing social and political movement to provide equal opportunities for people with disabilities in public fitness facilities. Policies, guidelines, and standards have been created to address the needs of people with disabilities. Full access includes access to the buildings, equipment, programs, trainers, and staff. Numerous materials have been created addressing different, and sometimes overlapping, access issues. The stakeholders and users need to know this material exists in order to be of benefit. The RESNA Standards Committee on Inclusive Fitness (IF) will facilitate information dissemination to fitness stakeholders, including fitness facility professionals and users. RESNA IF will facilitate cross-communication between stakeholders to ensure that user needs are adequately represented and to highlight any duplication or conflicting access information. RESNA IF will also create a universal access symbol to convey usability of the fitness facility and equipment.

BACKGROUND

The Americans with Disabilities Act (ADA) ensures that equal opportunities are provided to people with disabilities. Public fitness facilities and gyms must provide a percentage of accessible parking spaces and restrooms; and the built environment must comply with accessibility criteria, i.e., parking, doors, corridors, stairways, elevators, ramps, restrooms, water fountains, etc. However, little has been done until now to ensure that the fitness equipment and programs within the building are usable by those with functional limitations and impairments.

The Rehabilitation Engineering Research Centers for Interactive Exercise and Recreation Technologies and Exercise Physiology Benefiting People with Disabilities (RERC RecTech) has been working to break down barriers to access of the total fitness experience. RecTech has been working closely with the Inclusive Fitness Initiative (IFI) over the last decade to bring forth a harmonized, international set of criteria for aerobic and strength equipment. These standards were recently published through ASTM

(ASTM 2013a, ASTM 2013b), a voluntary consensus standards organization which houses over 12,000 standards, and were based on the UK IFI Stage II Standards and the US Universal Design of Fitness Equipment Guidelines (developed by Beneficial Designs through an NIH SBIR Phase I grant) (Hurley & Axelson, 2012). This work was completed through the ASTM F08.30 Fitness Products Committee, which houses fitness equipment standards for mainstream products.

In 2010 President Obama announced that ADA Title III would be amended to cover the use of exercise equipment in health clubs, hotel fitness centers, public recreation centers, and schools. As of 2012, the Department of Justice (DOJ) now mandates that access routes must be provided to fitness equipment in public facilities (Access Board, 2010). Barriers are being removed to access the full fitness experience in public facilities, but there is still work to do. Accessibility issues need to address not only the built environment, access routes, and equipment, but also programming, staff, and trainers in order to build a truly inclusive environment.

METHODS

RESNA Assistive Technology Committee (ATC)

A proposal was submitted to RESNA demonstrating the need for a new RESNA ATC to disclose policies, guidelines, and standards, including certifications, which are currently available to the fitness industry to provide non-discriminatory access for people with functional limitations and impairments. Initial stakeholders and interest category were identified.

Fitness Policies, Guidelines, and Standards

Disability organizations, fitness facility management, and researchers who are currently involved in or should be aware of fitness facility policies, guidelines, and/or standards were identified for outreach. In addition, initial literature and website searches were completed to identify fitness related material currently available.

Dissemination Plan

An announcement flyer for the RESNA IF ATC was created and is being distributed. Dissemination materials will be created for all aspects of inclusive fitness, including fitness facility layouts, accessible fitness equipment specifications, and fitness facility staff training materials.

Cross-communication between stakeholders and users will be facilitated through list serves, forums, and breakout group discussions at pertinent national and international conferences.

Inclusive Access Symbol

An inclusive access symbol to identify fitness facilities and fitness equipment in public facilities that meet access requirements for people with functional limitations and impairments has been proposed. Stakeholders and users will review several variations of the inclusive fitness symbol to ensure it conveys access to people of all abilities without negative or exclusive use connotation.

RESULTS

RESNA IF

The RESNA IF ATC proposal was drafted by RecTech D3 and IFI. RESNA IF was approved by the RESNA Assistive Technology Board in 2012 (www.resna.org), which targeted stakeholders outlined in Table 1.

Table 1: RESNA IF Stakeholders

Acronym	Title
ACSM	American College of Sports Medicine
ASTM	ASTM International
CI	Club Industry
DOJ	United States Department of Justice
IFC	Inclusive Fitness Coalition
IFI	UK Inclusive Fitness Initiative
IHRSA	International Health, Racquet & Sportsclub Association
NCPAD	National Center on Physical Activity & Disability
RESNA	Rehabilitation Engineering & Assistive Technology Society of North America
RecTech D3	Development of Uniform Standards for Accessible Fitness Equipment
NSF	NSF International
Access Board	United States Access Board

The need for cross-communication between stakeholders and users was highlighted in order to

facilitate collaborations when warranted and identify barriers that have yet to be addressed for complete access to the fitness experience.

Fitness Policies, Guidelines, and Standards

Preliminary outreach and Internet searches have highlighted current activity addressing the need for fitness facility policy that would enhance access to persons with functional limitations and impairments.

Access Board houses the ADA Accessibility Guidelines that mandate accessibility requirements for the permanent features throughout the built environment (www.access-board.gov). The Access Board also published the Accessible Sports Facilities – A Summary of Accessibility Guidelines, which covers:

- Areas of indoor and outdoor sports activity, including court and fields
- Dressing, fitting, and locker rooms, including benches
- Team or player seating areas
- Exercise equipment and machines
- Saunas and steam rooms
- Accessible routes

ACSM created the Health/Fitness Facility Standards and Guidelines which include facility design, equipment, operational practices, education, and staff (www.acsm.org). ACSM also offers training for Certified Inclusive Fitness Trainers (CIFT), which focuses on safe, effective training for people with disabilities:

- Effective and adapted methods
- Exercise precautions
- Current ADA policy
- Instruction to individuals with disabilities

ASTM published two voluntary standards in 2013 that contain over 75 accessibility criteria which apply to all fitness equipment: ASTM F3021 Specification and F3022 Test Method for Evaluating Universal Design of Fitness Equipment for Inclusive Use by Persons with Functional Limitations and Impairments (www.astm.org).

These standards were developed by ASTM F08.30 Fitness Products Committee in an international effort led by RecTech D3 and IFI. The F08.30 Tag Group Inclusive Fitness is currently working to strengthen F3021 vision impairment access criteria. This Tag Group is also adding specific equipment accessibility criteria, which will be used in conjunction with ASTM F3021 to design for access, to the following ASTM standards:

- F1250-00 (2006) - Exercise Bicycles
- F2115-12 - Treadmills

- F2216-12 - Strength Equipment
- F2810-10 - Elliptical Trainers

CI serves fitness business professionals. CI has held inclusive fitness tracks addressing specialty populations and medical integration during past conferences in collaboration with IFC and NCPAD.

DOJ is currently reviewing comments in response to adding regulations to enhance fitness equipment accessibility (28 CFR Parts 35 and 36, CRT Docket No. 113). RecTech D3 responded to DOJ's call with minimum scoping requirements and reference to the ASTM F3021 general fitness equipment access specifications, which were in draft form at the time. (www.ada.gov)

IFC is a group of organizations and individuals representing a cross-section of the disability rights, sports, health/fitness, and civil rights communities. Part of the IFC work program is to promote equal, safe access to fitness equipment, facilities, and programs (www.incfit.org).

IFI is currently managed under the English Federation of Disability Sport (EFDS). In addition to the IFI Stage II Standards, the IFI has also implemented guidelines for gym facilities programming and staff training to increase accessibility for those with disability. An IFI mark is used to identify compliant entities and equipment. Currently, there are over 400 UK IFI Mark accredited gym facilities nationally (www.efds.co.uk/inclusive_fitness).

IHRSA is a trade association serving the health and fitness club industry. IHRSA has been working with RESNA IF to explore possible connections and collaborations, both nationally and internationally.

NCPAD houses the AimFree tool, Accessibility Instruments Measuring Fitness and Recreation Environments, a validated measure used to assess fitness facilities. NCPAD has also developed many brochures on various exercise and fitness techniques for people with disabilities (www.ncpad.org).

RecTech is composed of three research and three development projects committed to using technology to promote more healthy, active lifestyles for people with disabilities. In addition to the D3 standards project, which includes the RESNA IF work, RecTech is developing adaptive gaming controls and virtual exercise environments. RecTech is also leading research in activity monitors for wheelchair users, telehealth exercise training, and community mapping technology (www.rectech.org).

NSF houses the draft Standard for Health/Fitness Facilities (www.nsf.org), which includes:

- Pre-activity screening, orientation, education and supervision
- Risk Management and emergency policies
- Professional staff and independent contractors
- Facility design and construction
- Safety equipment
- Operating practices
- Signage

Dissemination Plan

The RESNA IF work program was announced at the 2013 RESNA Conference. RESNA IF has also been working with IHRSA's Public Policy sector on possible collaborations. RESNA, NCPAD, IFC, and other pertinent list serves will be utilized to disseminate information and updates on RESNA IF work. In addition, RESNA IF has been collaborating with The World Institute on Disability (WID) on vision access requirements. Input has also been sought from the American Foundation for the Blind (AFB) and the National Federation of the Blind (NFB).

RESNA IF Access Symbol

One RESNA IF symbol has been proposed to date that conveys accessible fitness equipment that meets ASTM F0321/F3022 (Figure 1). This symbol was borrowed from Mobility Fitness and Mobility Golf (www.mobilitygolf.com).



Figure 1. Draft RESNA IF Access Symbol

DISCUSSION

RESNA IF outreach for committee members is underway. RESNA IF will:

- Involve key stakeholders from relevant fitness entities and disability related organizations.
- Build strong relations between key stakeholders and users.
- Break down current barriers of participation in public fitness facilities.
- Cull related fitness facility and program efforts into a guideline or technical report in order to widely disseminate this information.
- Encourage all fitness policies, guidelines, and standards work activity to consider person with functional limitations and impairments.
- Increase awareness of inclusive access to public fitness facilities.

- Facilitate inclusive fitness education tracks in national and international fitness related conferences, such as IHRSA and CI.
- Identify and facilitate areas needing further research, such as access to consoles for the vision impaired.
- Evaluate several (3-5) inclusive use symbols.

RecTech has a long-standing working relationship with the UK IFI with a proven track record through the ASTM F3021/F3022 collaboration work. RESNA IF will continue to glean information and strategies from the UK IFI beyond their success with fitness equipment and into the realms of staff, trainers, programming, and gym layout in order to improve access to the full fitness experience in the US (Figure 2).



Figure 2. Complete Fitness Experience

People of all abilities are entitled to full access to leisure and recreation facilities. The increase in health and social benefits are clear. Future research in the US will document benefits once an accessible structure is in place. For example, a change in membership of the number of participants with disabilities at YMCAs and other public fitness facilities can be documented. Standard health indices, such as weight and heart rate, can be tracked for persons with various types of impairments. A change in user

satisfaction can also be explored, such as the users overall satisfaction with being able to participate in activities with their friends and family as opposed to facilities designed specifically for rehabilitation.

CONCLUSIONS

RESNA IF is in a strategic position to break down barriers and facilitate a total inclusive fitness environment for public fitness facilities. RESNA IF will facilitate collaboration between pertinent entities and provide users a voice and an outlet to express their needs. This work will identify remaining accessibility barriers that still exist and may stimulate further research and/or standards development.

This work will allow people with disabilities to more easily identify fitness facilities, trainers, and accessible equipment that meet their specific needs. It will also increase opportunities for people with functional limitations and impairments to participate in exercise activities with family and friends. Fitness facility operators, trainers, and staff members will be able to more readily identify materials that are available to them in order to make their fitness environment, including layout, equipment, and programming more universally accessible to people of all abilities.

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REFERENCES

1. ASTM. (2013a). F3021 Standard Specification for Universal Design of Fitness Equipment for Inclusive Use by Persons with Functional Limitations and Impairments. ASTM Int'l.
2. ASTM. (2013b). F3022 Standard Test Method for Evaluating the Universal Design of Fitness Equipment for Inclusive Use by Persons with Functional Limitations and Impairments. ASTM Int'l.
3. Hurley, S.L. & Axelson, P.W. (2012). Universal Design of Fitness Equipment Criteria to Meet the New Department of Justice Accessibility Requirements. Proceedings of the RESNA 2012 Annual Conf. Arlington, VA: RESNA.
4. US Access Board (2010). ADA Chapter 2 Section 236 Exercise Machines and Equipment. Retrieved 14 January 2014 from <http://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/ada-standards/single-file-version#a2>.