

# Increasing Physical Activity and Exercise in Adults With Disabilities

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Information is provided about the special considerations regarding the amount and types of physical activity for adults with disabilities, including those with limited mobility, those who use wheelchairs, those with vision or hearing impairment, and those with intellectual and developmental disabilities. Every person has unique exercise and health needs that will influence the approach to exercise.

According to the Centers for Disease Control and Prevention (CDC), people with disabilities are three times more likely to have a chronic disease, such as hypertension, cardiovascular disease, or diabetes. Although all people, including those with disabilities, can benefit from regular physical activity, almost 50% of all adults with disabilities do not participate in any aerobic physical activity.<sup>2</sup> Individuals who participate in the recommended levels of physical activity have a reduced risk of premature mortality, non-communicable disease (such as coronary heart disease, hypertension, cancer, and diabetes mellitus), obesity, anxiety, depression, dementia, musculoskeletal disorders; and, conversely, those individuals have better cardiovascular fitness and good, health-related quality of life.<sup>3,4</sup>

## Needs and Benefits

One in four adults (61 million) in the United States have a physical, sensory, or intellectual disability that greatly influences major life activities.<sup>1</sup>

## Most Common Types of Disabilities<sup>1</sup>

<b>Mobility</b> <b>(13.7%)</b>	<b>Cognition</b> <b>(10.8%)</b>
<b>Hearing</b> <b>(5.9%)</b>	<b>Vision</b> <b>(4.6%)</b>
<b>Self-Care</b> <b>(3.7%)</b>	<b>Independent Living</b> <b>(6.8%)</b>

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## Recommended Guidelines for Adults

The CDC<sup>3</sup> recommends that all adults who are able should participate in aerobic physical activity each week, according to the following guidelines.<sup>3</sup>

- 150-300 minutes of moderate-intensity activity
- 75-150 minutes of vigorous-intensity activity
- An equivalent combination of moderate-to-vigorous-intensity activity.

Moderate- or greater-intensity muscle-strengthening activities, with involvement from all major muscle groups, on 2 or more days a week.

Older adults should do multicomponent physical activity that includes balance training as well as aerobic and muscle-strengthening activities.

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## General Physical Activity Considerations for Persons with Disabilities

Health professionals should work together with people with disabilities to design individualized physical activity plans to help patients stay active.<sup>3</sup> An assessment of the ability to participate in different types and amounts of physical activity can be done by the primary care team and often includes a referral to a physical, occupational, speech, or rehabilitation therapist for assessment and treatment.<sup>1</sup>

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### Activity Types

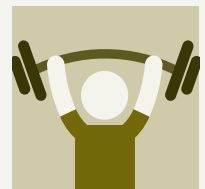
There are three main types of physical activity that contribute to diverse health benefits: aerobic, muscle-strengthening, and bone-strengthening.

#### Aerobic

activity is an endurance activity, also referred to as cardio activity, that involves constant movement of the large muscles.



**Muscle-strengthening** activity includes resistance training and weight lifting.



#### Bone-strengthening

activity includes weight-bearing or weight-loading to promote bone density.<sup>3</sup> Exercise to improve flexibility and balance is also recommended for all adults.



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### Prior to prescribing physical activity, an individual may need the following safety considerations:

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Verbal consultation | <input checked="" type="checkbox"/> Slow start and increases in small increments                            |
| <input checked="" type="checkbox"/> Physical assessment | <input checked="" type="checkbox"/> Safe environment (e.g. removing trip hazards)                           |
| <input checked="" type="checkbox"/> Warm-up             | <input checked="" type="checkbox"/> Consideration of adaptations to accommodate balance or physical ability |

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## Exercise Considerations for Adults With Disabilities

### Limited Mobility

For adults using canes and walkers, maintaining balance and strength in lower limbs is important for participation in activities of daily living, as well as participation in common aerobic exercise, such as walking or bicycling. Lower-limb exercise (e.g., walking, bicycling, swimming) has been shown to improve balance, muscle strength, and cardiovascular endurance.<sup>7</sup>



Exercises for improving balance and strength in adults using canes and walkers:

- 14 Exercises to Improve Balance and Strength  
[canes.on.ca/blog/14-exercises-improve-balance-and-strength](https://canes.on.ca/blog/14-exercises-improve-balance-and-strength)
- Working Out With Your Walker Or Cane  
[mobility-aids.com/work-those-mobility-aids.html](https://mobility-aids.com/work-those-mobility-aids.html)
- Sit to Stand Strengthening Exercise  
[youtube.com/watch?v=chw2oMUr4U&ab\\_channel=SignatureMedicalGroup](https://youtube.com/watch?v=chw2oMUr4U&ab_channel=SignatureMedicalGroup)

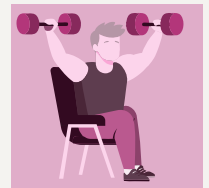
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### Adults Who Use Wheelchairs

Strength training exercises to build strength in the arms, chest, core, and legs are recommended for adults who use wheelchairs. Examples of upper body strength exercises include seated shoulder presses using weights or elastic fitness (resistance) bands. Doing these for a longer period of time can also provide aerobic activity. Seated jumping jacks or air boxing also are good aerobic exercise. To increase flexibility, many common yoga and tai chi maneuvers can easily be adapted to suit people who have mobility issues or use a wheelchair.

Demonstrations of exercises for people who use wheelchairs:

- Top 3 Effective Wheelchair Workouts  
[christopherreeve.org/blog/daily-dose/top-3-effective-wheelchair-workouts](https://christopherreeve.org/blog/daily-dose/top-3-effective-wheelchair-workouts)
- 8-Minute Workout Video  
<https://www.nchpad.org/resources/8-minute-workout-video/>
- 8 Minute Workout: Resistance Band  
[https://www.youtube.com/watch?v=uK-7ST\\_HL7g](https://www.youtube.com/watch?v=uK-7ST_HL7g)



Examples of adapted yoga and tai-chi movements:

- Seated Tai Chi for Seniors: 3 Routines Improve Flexibility and Well-Being  
[dailycaring.com/seated-tai-chi-for-seniors-3-simple-routines-improve-flexibility-and-well-being-video/](https://dailycaring.com/seated-tai-chi-for-seniors-3-simple-routines-improve-flexibility-and-well-being-video/)
- Inclusive Yoga: A Practice for Individuals with a Spinal Cord Injury  
<https://youtu.be/5FxIbzdBzA?si=0hSRe6bdELNR7FWL>

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## Blind Adults or Adults Who Have Low Vision

Blind adults or those with low vision can do aerobic and strength training exercises at home, in a gym, or in a community-based setting. Depending on the extent of the vision loss, walks in the neighborhood can be one of the best forms of physical activity. Yoga and dance also are good types of exercise for adults with vision impairment.

Suggestions for home exercises:

- Exercise at Home and Outside of the Gym: Exercise in Disguise  
<https://www.hopkinsmedicine.org/-/media/general-internal-medicine/documents/faculty-resource/exercise-in-disguise.pdf>
- Stretching and Flexibility for Blind and Low Vision  
<https://aphconnectcenter.org/visionaware/recreation-and-leisure/exercise/stretching-and-flexibility-in-an-active-lifestyle/>
- Developing Balance and Strength if You are Blind or Low Vision  
<https://aphconnectcenter.org/visionaware/recreation-and-leisure/exercise/developing-balance-and-strength/>



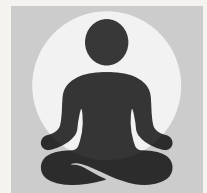
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## Deaf Adults or Adults with Hearing Loss

Adults who are Deaf or hard of hearing can participate in both home-based and gym-based/community-based exercise routines. Closed-caption television and DVDs are useful to lead individuals through both home-based aerobic and strength training workouts.

Home yoga program specifically designed for adults with hearing loss:

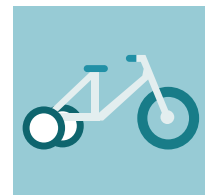
- YOGA for Hearing Loss  
[youtube.com/watch?v=4S8w999YXaU](https://youtube.com/watch?v=4S8w999YXaU)



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## Adults with Intellectual and Developmental Disabilities

Adults with intellectual and developmental disabilities (IDD) may benefit from exercising with a support person, as this person can provide social support and physical assistance and may also serve as a model for proper form. Lack of social and community support is reported as a common barrier to exercise by adults with IDD, as is a lack of financial ability to pay for transportation and program fees to physical activity opportunities in the community.<sup>8,9</sup> Local Ys often offer low cost group exercise and dance classes that can benefit people with IDD. Health Matters, an exercise and nutrition program designed to meet the needs of adults with IDD, focuses on cardiovascular, strength, and balance exercises. Using short and simple instructions, breaking exercises down into smaller components, modeling, and providing feedback are effective strategies for teaching new exercises to people with IDD.<sup>10</sup>



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## Additional Resources

Physical activity should be individualized, and general life activities and factors such as motivational level and mental health should be considered. Health care professionals can help individuals identify and remove barriers to participation. The following resources are available for health care professionals creating exercise plans with and for individuals with disabilities.

- **National Center on Physical Activity and Disability**

Website with information on making physical activity accessible to people of all abilities.

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

- **Increasing Physical Activity Among Adults With Disabilities**

Centers for Disease Control and Prevention guidelines, recommendations, and resources for counseling people with disabilities on increasing their physical activity.

[cdc.gov/disability-and-health/conditions/physical-activity.html](http://cdc.gov/disability-and-health/conditions/physical-activity.html)

- **Physical Activity and Considerations for Person With Disabilities**

A workshop summary of the evidence for physical activity and considerations for people with disabilities.

[www.nap.edu/read/11819/chapter/9#129](http://www.nap.edu/read/11819/chapter/9#129)

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