



National
Multiple Sclerosis
Society



Physical Activity for People with Multiple Sclerosis

An Introduction to MS
for Health and Wellness
Professionals

2nd Edition

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Acknowledgements

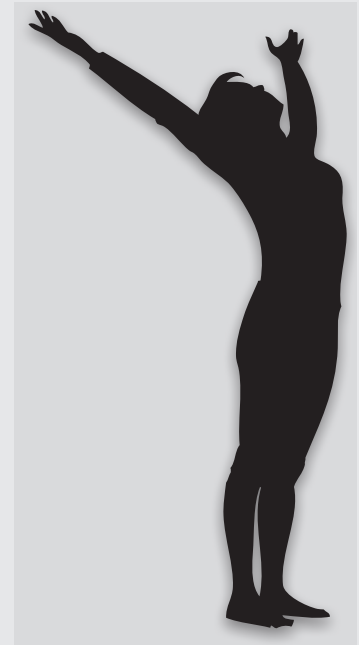
The second edition of *Physical Activity for People with Multiple Sclerosis: An Introduction to MS for Fitness and Wellness Professionals* was reviewed by National MS Society volunteers Patricia Kennedy, RN, and Patricia Provance, PT; and Rosalind Kalb, PhD, and Dorothy Northrop, MSW, of the Society's Research and Clinical Programs Department.

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Overview and Objectives

There is strong interest among many people with multiple sclerosis (MS) in physical activity programs. Those involved in exercise programs often experience an increased sense of well-being in addition to other benefits such as increased muscle strength and endurance, maintained and improved joint range of motion and flexibility, improved coordination, improved balance, increased cardio-respiratory endurance, as well as the social interaction that the experience provides.



Most people with MS learn to cope with the disease and continue to lead satisfying, productive lives.

Working with people MS can be a mutually-rewarding experience—for the participant and the instructor. This manual is meant to be a resource for fitness and wellness professionals, including aquatics instructors, yoga teachers, personal trainers, and others who want to learn more about MS: it provides an overview of the disease and offers specific strategies for working with a diverse MS population.

After completion of *Physical Activity for People with Multiple Sclerosis: An Introduction to MS for Fitness and Wellness Professionals*, readers will be able to:

- describe basic facts about multiple sclerosis
- identify MS symptoms that affect movement and activity level
- interact more comfortably with people with disabilities
- describe safety and accessibility issues important to people with MS

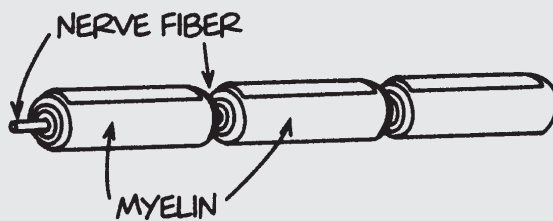
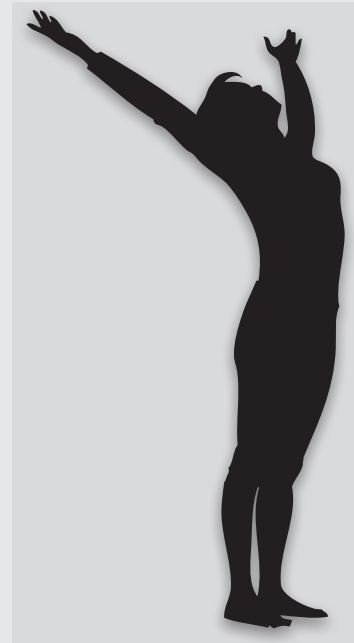
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Understanding Multiple Sclerosis

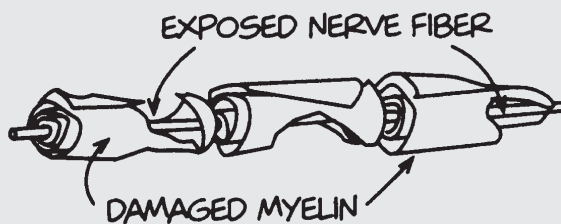
What Is MS?

MS is a chronic, often disabling disease that affects the central nervous system (CNS). The CNS consists of the brain, spinal cord and the optic nerves.

The nerve fibers of the CNS are surrounded and protected by a fatty substance called myelin, which helps the nerve fibers to conduct electrical impulses.



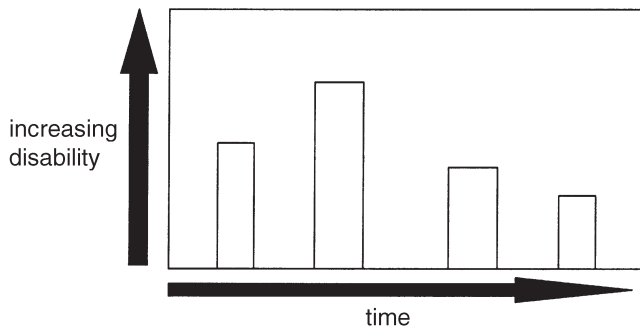
In MS, myelin is lost in **multiple** areas, leaving scarred or **sclerotic** tissue—which gives the disease its name. These damaged areas are also known as plaques or lesions. The nerve fibers themselves may also be damaged or broken.



When myelin is damaged or destroyed, the ability of nerves to conduct electrical impulses to and from the brain is disrupted, producing the various symptoms of MS. Destruction of the nerve fibers themselves is believed to cause the permanent disability that many people with MS experience.

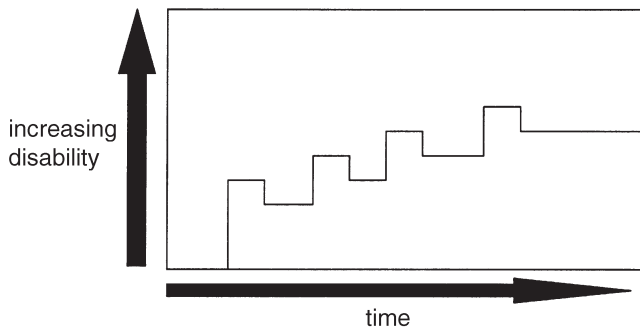
Courses of the Disease

People with MS will most likely experience one of four disease courses, each of which might be mild, moderate, or severe.



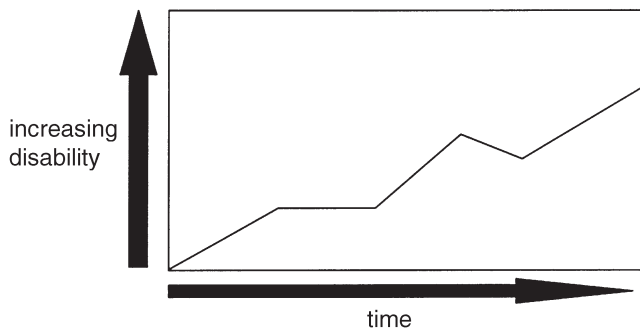
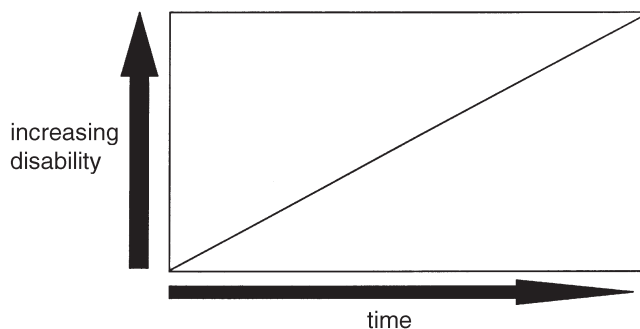
Relapsing-Remitting MS

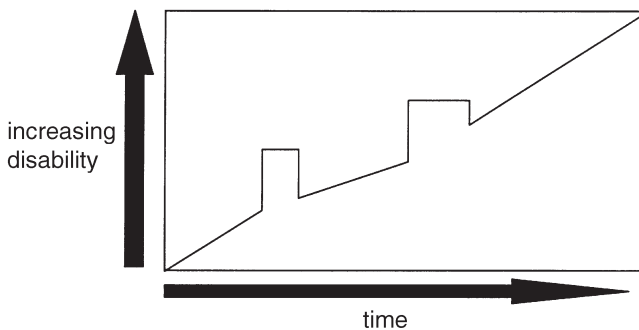
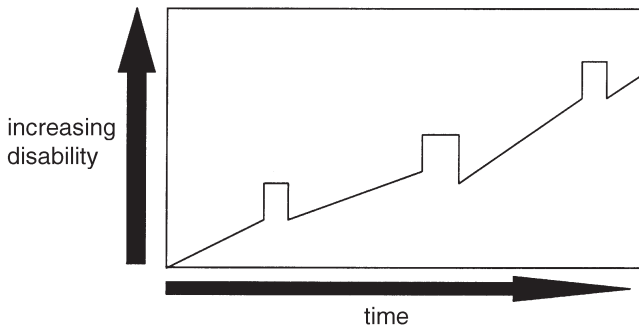
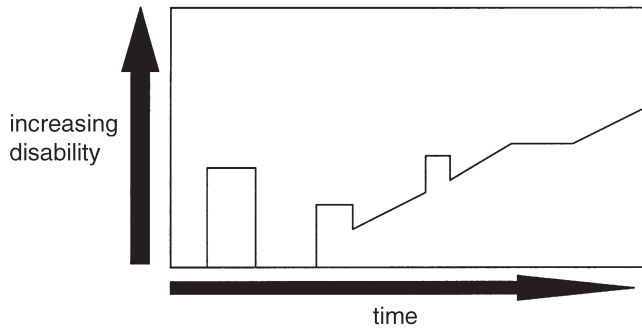
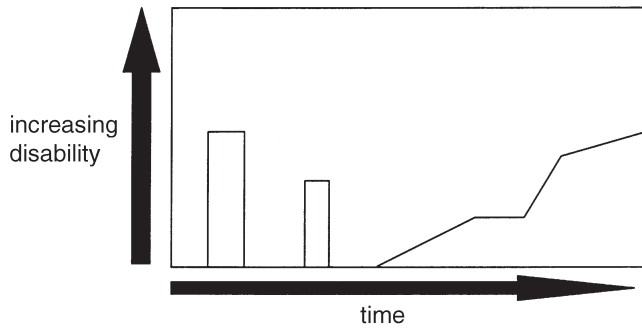
People with this type of MS experience clearly defined attacks of worsening neurologic function. These attacks—which are called relapses, flare-ups, or exacerbations—are followed by partial or complete recovery periods (remissions), during which no disease progression occurs. Approximately 85% of people are initially diagnosed with relapsing-remitting MS.



Primary-Progressive MS

This disease course is characterized by slowly worsening neurologic function from the beginning—with no distinct relapses or remissions. The rate of progression may vary over time, with occasional plateaus and temporary minor improvements. Approximately 10% of people are diagnosed with primary-progressive MS.





Secondary-Progressive MS

Following an initial period of relapsing-remitting MS, many people develop a secondary-progressive disease course in which the disease worsens more steadily, with or without occasional flare-ups, minor recoveries (remissions), or plateaus. Before disease-modifying medications became available, approximately 50% of people with relapsing-remitting MS developed this form of the disease within 10 years. Long-term data are not yet available to determine if treatment significantly delays this transition.

Progressive-Relapsing MS (PRMS)

In this relatively rare course of MS (5%), people experience steadily worsening disease from the beginning, but with clear attacks of worsening neurologic function along the way. They may or may not experience some recovery following these relapses, but the disease continues to progress without remissions.

(These figures are adapted from Fred D. Lubin, MD, and Stephen C. Reingold, PhD, *Neurology*, April 1996; 46: 907–911.)

Since no two people have exactly the same experience of MS, the disease course may look very different from one person to another. And, it may not always be clear to the physician—at least right away—which course a person is experiencing.

What Causes MS?

The exact cause of MS is unknown. Most researchers believe that the damage to myelin results from an abnormal response by the body's immune system. This abnormal response is called an autoimmune response.

Normally, the immune system defends the body by attacking foreign invaders such as viruses or bacteria. But in an autoimmune response, the body attacks its own tissue. In MS, which is an autoimmune disease, the body attacks myelin.

Scientists do not yet know what triggers the immune system to do this. Most agree that several factors are involved, including genetics, gender, and environmental factors (e.g., a virus or toxic environmental substance).

Note that MS is not contagious and is not usually fatal. MS is not directly inherited, although a genetic predisposition is thought to be involved.

Who Gets MS?

Anyone may develop MS, but there are some patterns.

- Most people with MS are diagnosed between the ages of 20 and 50.
- Two to three times as many women as men have MS.
- Studies indicate that genetic factors make certain individuals more susceptible than others, but there is no evidence that MS is directly inherited.
- MS occurs more commonly among people with northern European ancestry, but it is also found among African-Americans, Hispanics and Asians.

Approximately 400,000 Americans have MS and 2.5 million people have MS worldwide. Every week about 200 people receive a diagnosis of MS.

How Is MS Diagnosed?

At this time, no single test is available to identify or rule out MS. Several tests and procedures are needed. These are likely to include:

- **Complete Medical History** The physician takes a very careful medical history, looking for past and current symptoms or changes indicative of damage in the central nervous system.
- **Nervous System Functioning** The neurologic exam consists of tests of reflexes, balance, coordination, sensation (including tingling or numbness), and vision.

- **Diagnostic Tests** such as
 - MRI scan, which gives a detailed view of the brain
 - Evoked potential tests, which measure how quickly and accurately a person's nervous system responds to stimulation
 - Spinal tap, which checks spinal fluid for signs of immune system dysfunction

In order to make a diagnosis of MS, the physician must

- Find evidence of damage in at least two separate areas of the CNS, which includes the brain, spinal cord and optic nerves AND
- Find evidence that the damage occurred at least one month apart AND
- Rule out all other possible diagnoses.

MS Symptoms

In multiple sclerosis, damage to the myelin in the CNS—and to the nerve fibers themselves—interferes with the transmission of nerve signals between the brain and spinal cord and other parts of the body. This disruption of nerve signals produces the primary symptoms of MS, which vary depending on where the damage has occurred.

Over the course of the disease, some symptoms will come and go, while others may be more lasting.

Most Common Symptoms

Fatigue Fatigue is one of the most common symptoms of MS, occurring in more than 80% of people. Fatigue can significantly interfere with a person's ability to function at home and at work, and may be the most prominent symptom in a person who otherwise has minimal activity limitations. MS fatigue is commonly described as a feeling of "exhaustion" or being "wiped out," with reported worsening in mid-to-late afternoon that is unrelated to level of exertion.

Numbness Numbness of the face, body, or extremities (arms and legs) is one of the most common symptoms of MS, and is often the first symptom experienced by those eventually diagnosed as having MS.

Walking (Gait), Balance, & Coordination Problems Problems with gait (difficulty in walking) are among the most common mobility limitations in MS. Gait problems are related to several factors:

- **Weakness:** Muscle weakness is a common cause of gait difficulty. Weakness can cause problems such as toe drag, foot drop, “vaulting” (a compensatory technique that involves raising the heel on the stronger leg to make it easier to swing the weaker leg through), compensatory hip hike, trunk lean, or circumduction (swinging leg out to the side). Weakness in both legs is known as paraparesis; weakness in only one leg is called monoparesis. Weakness can often be compensated for with the use of appropriate exercises and assistive devices, including braces, canes or walkers.
- **Spasticity:** Muscle tightness or spasticity can also interfere with gait. Spasticity refers to feelings of stiffness and a wide range of involuntary muscle spasms (sustained muscle contractions or sudden movements). It is one of the more common symptoms of MS. Spasticity may be as mild as the feeling of tightness of muscles or may be so severe as to produce painful, uncontrollable spasms of extremities. Spasticity may also produce feelings of pain or tightness in and around joints, and can cause low back pain. Although spasticity can occur in any limb, it is much more common in the legs. Stretching exercises and antispasticity medications are generally effective in treating this symptom.
- **Loss of Balance:** Balance problems typically result in a swaying and “drunken” type of gait known as ataxia. People with severe ataxia generally benefit from the use of an assistive device such as a cane or walker.
- **Sensory Deficit:** Some people with MS have such severe numbness in their feet that they cannot feel the floor or know where their feet are. This is referred to as a sensory ataxia.

Bladder Dysfunction Bladder dysfunction, which occurs in at least 80% of people with MS, can usually be managed quite successfully.

Bowel Dysfunction Constipation is a particular concern among people living with MS, as is loss of control of the bowels. Diarrhea and other problems of the stomach and bowels can also occur but are much less common.

Vision Problems A vision problem is the first symptom of MS for many people. The sudden onset of double vision, blurring, poor contrast or eye pain can be terrifying—and the knowledge that vision may be compromised can make people with MS anxious about the future.

Dizziness and Vertigo Dizziness can also occur in MS. People may feel off balance or lightheaded. Much less often, they have the sensation that they or their surroundings are spinning, a condition known as vertigo.

Sexual Dysfunction Sexual problems are often experienced by people with MS, but they are very common in the general population as well. Sexual arousal begins in the central nervous system, as the brain sends messages to the sexual organs along nerves running through the

spinal cord. If MS damages these nerve pathways, sexual response—including arousal and orgasm—can be directly affected. Sexual problems also stem from MS symptoms such as fatigue or spasticity, as well as from psychological factors relating to self-esteem and mood changes.

Pain Pain syndromes are common in MS. In one study, 55% of people with MS had “clinically significant pain” at some time. Almost half were troubled by chronic pain. Pain in MS can result from damage to nerves in the CNS (neurogenic pain), or result from altered gait patterns or inappropriate use of assistive devices (orthopedic pain).

Cognitive Function Cognition refers to a range of high-level brain functions, including the ability to learn and remember information: organize, plan, and problem-solve; focus, maintain, and shift attention as necessary; understand and use language; accurately perceive the environment, and perform calculations. Cognitive changes are common in people with MS—approximately 50% of people with MS will develop problems with cognition.

Emotional Changes Emotional changes are more common in MS than in other chronic illnesses—because of neurologic and immune changes caused by the disease, and as a reaction to the stresses of living with a chronic, unpredictable illness. Bouts of severe depression (which is different from the healthy grieving that needs to occur in the face of losses and changes caused by MS), mood swings, irritability, and episodes of uncontrollable laughing and crying (called pseudobulbar affect) pose significant challenges for people with MS and their family members.

Less Common Symptoms

These symptoms also occur in MS, but much less frequently:

- Speech Disorders
- Swallowing Problems
- Headache
- Hearing Loss
- Seizures
- Tremor
- Respiration/Breathing Problems
- Itching

Other Things to Know about MS . . .

Lhermitte’s Sign Some people with MS experience an uncomfortable, abnormal neurological sensation called Lhermitte’s sign. This electrical sensation travels down their spine and into their legs when they bend their head forward. One should be aware of Lhermitte’s sign especially when planning physical activities for people with MS.

Heat Intolerance An increase in core body temperature caused by conditions such as hot weather, high humidity, hot baths, heated swimming pools, physical exertion, or fever can slow nerve conduction and temporarily worsen MS symptoms. This temporary worsening of symptoms is referred to as a pseudoexacerbation. The symptoms return to baseline when the person's body temperature returns to normal.

While many people with MS experience heat intolerance, not all do. Discuss heat issues with clients or students to determine whether or not they tend to experience heat intolerance.

How Is MS Treated?

Although there is still no cure for MS, effective strategies are available to

- *Modify the disease course* Reduce number of relapses, rate of progressions and development of new lesions through the use of FDA-approved, disease-modifying drugs
- *Treat acute attacks*, also known as relapses or exacerbations, to shorten the duration and reduce the severity
- *Manage symptoms*
- *Improve function and safety*
- *Provide emotional support*

In combination, these strategies enhance the quality of life for people living with MS.

Exercise for Individuals with MS

Benefits of an Exercise Program

A sedentary lifestyle, for anyone, leads to deconditioning. Inactivity can result in loss of muscle tone and disuse weakness (not related to demyelination), poor postural alignment and trunk control, decreased bone density (and resulting increased risk of fracture), and shallow, inefficient breathing. Exercise decreases the risk of heart disease, decreases resting blood pressure, aids sleep, strengthens bones, and increases flexibility, endurance, energy and can elevate one's sense of well being.

While exercise has not been shown to slow the progression of MS, it can help decrease complications that arise from muscular fatigue, weakness, contractures, and spasticity. Additionally, exercise can serve as an outlet for stress reduction and help maximize independence, regardless of one's ability.

In a pivotal study, researchers at the University of Utah demonstrated the benefits of exercise for people with MS. Those people with MS who participated in an aerobic exercise program had better cardiovascular fitness, better bladder and bowel function, less fatigue and depression, a more positive attitude, and increased participation in social activities.

For people with MS involved in an exercise program, it is believed that:

- Breathing can become deeper and more regular
- Circulation can increase, bringing oxygen throughout the body
- Flexibility can increase and joint range of motion can improve
- Fatigue can be better managed.
- Muscles and joints can be strengthened
- Ambulation endurance can improve
- Skeletal structural alignment can improve
- Balance issues can be addressed



- Secondary complications of spasticity, muscular tension and muscle atrophy can decrease
- Swelling/edema can decrease
- Weight maintenance/reduction is facilitated
- Tolerance for exercise can increase
- Level of independence may increase
- Isolation and depression may decrease
- A general feeling of well being ensues

Fitness/Wellness Versus Rehabilitation: The Differences

Rehabilitation and wellness programs both help to maximize functional outcomes and independence. Although skills, education, and goals differ for each of the disciplines involved, a team effort ensures the best possible outcome for the client.

The following chart helps clarify professional roles:

Fitness/Wellness Professional	Rehabilitation Professional
<ul style="list-style-type: none"> • No standard requirements. 	<ul style="list-style-type: none"> • Meets state requirements for licensure and/or registration.
<ul style="list-style-type: none"> • Uses general screening techniques and assessment information provided by healthcare professional and client. This may consist of a health history and non-invasive fitness testing (e.g., strength, flexibility), etc. 	<ul style="list-style-type: none"> • Assesses neurological manifestations and evaluates quality of movement. Muscle tone, posture, joint mobility, pain, vision and balance are also evaluated to contribute to a specific individualized program.
<ul style="list-style-type: none"> • Designs and implements fitness/wellness programs that address the body as a whole. 	<ul style="list-style-type: none"> • Develops treatment plan and collects data for attaining and maintaining optimal level of functional independence. Treatment-based programs usually focus on affected area.
<ul style="list-style-type: none"> • “Hands Off”—Participant performs exercises independently—with spotting and guiding/cueing provided by the instructor. 	<ul style="list-style-type: none"> • “Hands On”—Client may need assistance to perform movement. Therapist may facilitate or assist with movement of limbs and/or add manual resistance to movement.

Fitness/Wellness Professional	Rehabilitation Professional
<ul style="list-style-type: none"> • Session objective is overall physical and mental well-being and achieving overall fitness goals. 	<ul style="list-style-type: none"> • Session objective is on improving specific function(s) until a plateau or stable condition is reached.
<ul style="list-style-type: none"> • Provides group and one-on-one services. “Customers” are called students/participants (group setting) or clients (one-on-one setting). 	<ul style="list-style-type: none"> • Provides one-on-one service. “Customers” are called patients or clients. Treatment is sometimes done in groups.
<ul style="list-style-type: none"> • Settings include gyms, studios, fitness centers, pools, homes, and preventative health settings (with healthcare professionals). 	<ul style="list-style-type: none"> • Settings include hospitals, rehabilitation centers, clinics, private office or homes.

Functional Levels: Options for Movement Modifications

The following levels are intended to assist health, fitness, and wellness professional in designing exercise programs and class formats that address the needs of a group with mixed functional levels. When designing a class or one-on-one training session, keep the following three levels in mind.

Level 1 These individuals may have no symptoms or mild symptoms. They will generally walk independently or use a cane. However, they may be experiencing symptoms that are not outwardly visible to the instructor.

Level 2 These individuals have more motor-physical limitations and are more dependent on assistive devices such as walkers and wheelchairs for mobility. They have good transfer skills, but may need additional help getting into a chair, onto the floor, or into the pool. They may require assistance with balance while participating in a class.

Level 3 These individuals have greater functional impairment and may experience paralysis and spend most of their time in a wheelchair. These participants may need personal attention and may require an assistant.

It is important to remember that symptoms of MS are different for each individual and may change daily or weekly. Be sure to discuss any specific limitations with each student. If a movement needs to be adapted, involve the student if possible so that they can modify the movement to best meet their needs.

Keep in Mind . . .

- Common “invisible” symptoms that may require program modification—at any level—include fatigue, heat sensitivity, numbness, visual disturbances and cognitive impairment.
- An exercise class is not intended to replace rehabilitation therapy or personal training.

General Teaching Tips

- Choosing appropriate variations and types of activities is an important step.
- When planning an exercise program, it is important to incorporate flexibility, strengthening and cardiorespiratory (aerobic) activities. The needs of the participants will dictate where emphasis needs to be placed.
- Frequency, intensity and time (FIT) considerations are important—adjustments to these parameters will help individuals achieve their goals.
- Plan flexible rest breaks to avoid excessive fatigue or overheating.
- Provide a cool, well-ventilated environment.
- Be prepared to repeat instructions for those who may be experiencing cognitive problems.
- Remember that the student’s symptoms of MS may change from one session to the next; adjust exercise programs accordingly.
- Activities need to be enjoyable for participants. Adherence to an exercise program is often related to the amount of enjoyment derived.

If an individual is having difficulty initiating or maintaining an exercise/physical activity program, recommend that they consult with a healthcare or fitness professional with expertise in MS who can provide specific exercises that will increase success and adherence with an activity program. Always remember, of course, to recommend that people consult with their physician if they have any questions about whether a new exercise program it is right for them or if their symptoms change.

Equipment Usage and Analysis

Equipment can enable an individual to complete a movement action or position, when range of motion, flexibility or individual symptoms would otherwise prohibit it. In this way, full benefits of the exercise or position are achieved without stress, strain or injury. Equipment can also be used to increase or decrease intensity and add challenge or variety to activities.

An important first step in selecting the appropriate exercise equipment is to determine the needs of the student. Next, evaluate specific pieces of equipment to determine which type will best address these needs.

Once you have made a selection, knowing how to use it correctly is essential. Equipment that is effective as an exercise tool can also be ineffective and damaging when used inappropriately. When used correctly exercise equipment can be an excellent tool for modification/adaptation or intensification of movements.

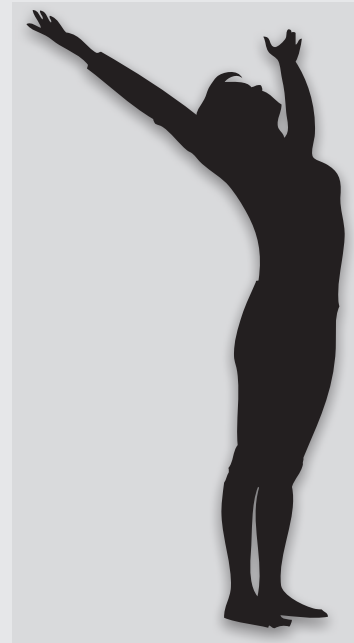
When considering the use of equipment, do the following:

- Establish intended use/application
- Assess for correct body mechanics during use
- Identify contraindications/risks
- Determine benefits
- Determine the ability of the client
- Identify tool limitations (cost, availability, intended ability level, etc.)
- Determine desired action or benefit you wish to impart.

Notes

Interacting with People with Disabilities

Sensitivity towards people with disabilities is important for personal relationships and also makes good business sense. It can help you expand your practice, better serve your customers, and develop your audience. When service providers—including fitness and wellness professionals—observe disability etiquette and use appropriate language, clients feel more comfortable and are likely to benefit more fully from programs in which they participate.



Language

What we say and how we say it can either enhance the dignity of those we serve, or inadvertently reflect and perpetuate stereotypes and negative attitudes. How we think affects how we talk and behave.

- Disability language and etiquette are about respect, common sense, and common courtesy.
- Some common words and phrases reinforce prejudices and assumptions.
- The right language challenges discrimination and stereotypes.
- Language is continually evolving: not everyone agrees on what is appropriate and what is not.
- Sincerity and honesty go a long way.

Stereotypes to Avoid

- People living with disabilities are “courageous.”
- People’s lives are ruined by disease or disability.
- Disability (MS) dominates a person’s life.
- Disease or disability was caused by something the person did or did not do.
- People with disabilities aren’t as smart as other people.
- People with disabilities are sick.

General Language

Phrases to Avoid . . .	Use Instead . . .
<ul style="list-style-type: none"> • Sufferer, afflicted, victim, invalid, crippled, stricken 	<ul style="list-style-type: none"> • Person/people with a disability
<ul style="list-style-type: none"> • Wheelchair-bound, confined to a wheelchair 	<ul style="list-style-type: none"> • Uses a wheelchair
<ul style="list-style-type: none"> • Handicapped/disabled parking 	<ul style="list-style-type: none"> • Accessible parking
<ul style="list-style-type: none"> • Normal person, healthy person 	<ul style="list-style-type: none"> • Person/people without disability, able-bodied person

MS-Specific Language

Phrases to Avoid . . .	Use Instead . . .
<ul style="list-style-type: none"> • MS patient/client/person 	<ul style="list-style-type: none"> • Person with MS/who has MS
<ul style="list-style-type: none"> • “MS-ers” 	<ul style="list-style-type: none"> • People with MS
<ul style="list-style-type: none"> • Person suffering from/afflicted with MS; MS sufferer 	<ul style="list-style-type: none"> • Person living with/affected by MS
<ul style="list-style-type: none"> • When she was stricken with MS 	<ul style="list-style-type: none"> • When she was diagnosed with MS

Conversation Etiquette

- First and foremost: relax and enjoy the uniqueness of the individual.
- Treat the person as you would any other.
- Speak directly to the person, not an attendant or companion.
- Don’t make assumptions about what a person can or cannot do based on what you see and what you [think you] know.
- Offer to help if it seems appropriate—and then wait for a response.
- A wheelchair is part of a person’s personal space. Do not lean on it.

- When speaking to a person who uses a wheelchair, try to place yourself at eye level to that person. Step back, squat, or sit in a chair if you are going to have a long conversation. Do not lean over in a condescending manner:
- When approaching a person with a visual impairment, always identify yourself immediately. Identify yourself before you speak especially if there are many voices in the room as it is difficult to know who is speaking.
- Don't pat or talk to a service animal unless invited to do so.
- When conversing with a person with speech problems, be patient, and let him/her speak at a comfortable pace. Never pretend you understand if you are having difficulty. It is okay to ask a person to repeat. It is also appropriate to repeat what you think you heard, and ask for confirmation or correction.
- Don't worry about using customary expressions, e.g., take a walk . . . , run an errand . . . , see you later
- Remember that disability—and ability—are not always visible.

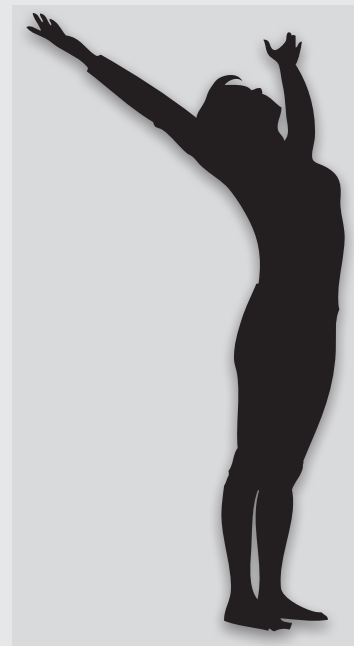
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The Environment: Safety and Accessibility

Participant Safety

Important reminders to participants at the beginning of each class:

- Encourage participants to advise instructor about medications being taken that could impact attention, balance, concentration, etc.
- Each participant needs to know his/her own limitations and to exercise at his/her own pace. Classes are not competitive in nature and each participant has his or her own situation, which may change from week to week. Short breaks during the class are appropriate and recommended if needed.
- Any time a person experiences new difficulty with the exercises in class or symptoms increase, recommend that they contact their physician.



Facility Accessibility

The Americans with Disabilities Act of 1990 established basic civil rights for people with disabilities, especially in the areas of employment and public accommodation. If you are serving people with MS, every effort should be made to assure that access and safety are assessed. Ramps, wider doorways, accessible bathrooms and other accommodations mean that those with disabilities using mobility equipment such as walkers, scooters or wheelchairs can take advantage of your services.

The Accessibility Checklist (Appendix A) provides a quick way of assessing whether or not a facility is accessible to people with mobility equipment.

Notes

About the National Multiple Sclerosis Society

The National MS Society funds a wide range of research initiatives, drives change through advocacy, facilitates professional education, collaborates with MS organizations around the world, and helps address the challenges of everyone affected by MS.

The National MS Society is the largest nonprofit organization in the United States supporting research for the treatment, prevention and cure of multiple sclerosis. Through its 50-state network of chapters and the combined efforts of volunteers, donors, researchers and health care professionals, the Society provides significant outreach, education and support to individuals and families who are impacted by the disease.

The National MS Society . . . the expert resource for professionals

The National MS Society's *Professional Resource Center* (PRC) supports the work of health professionals involved in the care of people with MS and their families. The PRC provides a range of library and literature search services, as well as information and consultation about the disease and its management, insurance, long-term care, and the Society's professional education opportunities.

Further information is available via the following:

E-mail: HealthProf_info@nmss.org

Online: nationalMSSociety.org/PRC

To receive periodic research and clinical updates via e-mail, please contact us via e-mail at the address listed above.

The National Multiple Sclerosis Society is proud to be a source of information about multiple sclerosis. Our comments are based on professional advice, published experience and expert opinion, but do not represent individual therapeutic recommendation or prescription.

*Professional **R_x** Resource Center*



Notes

Appendix A: Accessibility Checklist for Exercise Facilities

This resource is intended to provide a quick guide for assessing accessibility and usability for people with MS. For further information, consult the Americans with Disabilities Act website at www.ada.gov or an experienced architect.



Entrances and Doors

- Is there an approach path without stairs? (Y/N)
- Is the path stable, firm and slip-resistant? (Y/N)
- Is the path at least 36 inches wide? (Y/N)
- Is the main entrance free of barriers/steps, etc.? (Y/N)
- If there are barriers, is there another accommodation such as a ramp, lift, or alternative accessible entrance? (Y/N)
- Are there accessible entrance doors? (Y/N)
 - Clear opening of at least 32 inches wide
 - Door handles are no higher than 48 inches
 - Can be operated with a closed fist
 - Interior doors do not require more than 5 pounds of force to operate (local fire regulations may pre-empt this)
 - Doors with closers take at least 3 seconds to close
 - Doors have a level threshold (less than 1/4 inch high) or beveled (no more than 1/2 inch high)
 - Doormats are no higher than 1/2 inch and are secured to the floor at all edges

Ramps

- Do ramps have slopes no greater than 1:12 (which means that for every 1 inch of height or rise, there are 12 inches (1 foot) of ramp “length” or “run”? (Y/N)
- Do ramps longer than 6 feet have railings on both sides? (Y/N)
- Do ramps have a non-slip surface? (Y/N)

Lockers and Showers

- Do entrances and doors to locker rooms have a clear opening of at least 32 inches? (Y/N)
- Do entrances, and doors to locker rooms provide necessary clearances for guests with restricted mobility? (Y/N)
- Do locker rooms include accessible lavatories, urinals, water closets, showers, dressing booth, and lockers as well as provide an accessible route from the entrance to these fixtures? (Y/N)

Swimming Pool

- Is at least one pool entry/exit available for people with restricted mobility? (Y/N)
- Do steps into swimming pools have slip-resistant treads or finish? (Y/N)
- Are there handrails at steps to provide support to the user on both the right and left side? (Y/N)
- Is the pool temperature between 82–85 degrees Fahrenheit? (Y/N)
- Is there a lift available? (Y/N)

Miscellaneous

- Are staff members trained and available to assist with mobility needs, if necessary? (Y/N)
- Are there accessible fire exits/emergency procedures for people with limited mobility? (Y/N) If so, where are they located?