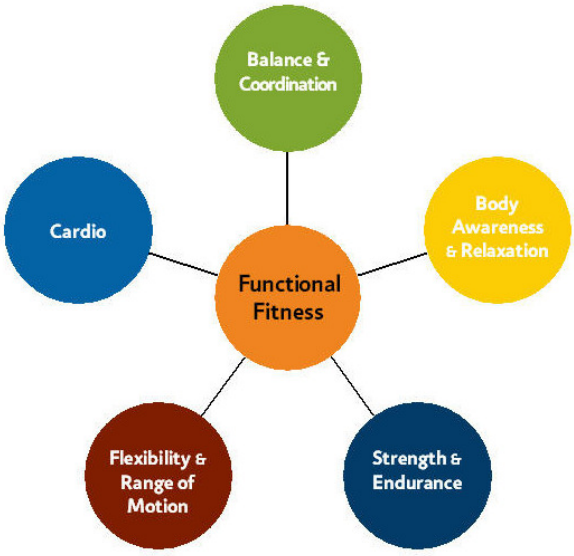
An Integrated Approach to Fitness

Functional fitness maximizes the efficiency of the body's physiological system to help manage and take care of activities of daily life. By using exercises that focus on building a body capable of doing real-life activities in real-life situations participants will make the most effective use of their time and effort. The key to a functional approach is integration. It's about training all muscles to work together for a specific purpose rather than isolating them to work independently.



When successfully combined into the following five components of fitness, functional exercise can help maximize strength and minimize overuse of muscles that compensate for weaker counterparts and/or changes due to MS.

Strength & Endurance-- Strength training uses resistance to challenge muscles, which helps improve muscle strength, bone density, muscle mass, flexibility and balance, and prevent injury. Weakness is a common problem in MS and has numerous and varied causes. A properly designed and executed physical activity program can help address areas of weakness and imbalance in the body and increase endurance during activity over time.

Flexibility & Range of Motion-- Physical activity can help improve flexibility, which improves range of motion and muscle tone. For individuals living with MS, lack of movement can sometimes translate to loss of flexibility, limiting range of motion.
Flexibility exercises can improve joint integrity, prevent injury and release stress.

Cardiovascular Exercise—Cardiovascular exercise, or cardio, is activity that involves the large muscles, increases the heart and respiratory rate and keeps the heart rate elevated for a period of time. Cardio is good for the heart and includes walking, bicycling, swimming, and tennis or any exercises that use large muscles. For individuals with MS, cardiovascular activity can help fight fatigue and increase endurance.

Relaxation & Body Awareness-- Through purposeful breath and movement an individual can relax the body and decrease muscle tension, slow heart and respiratory rates, and shift mental attention in order to increase concentration that aids body awareness. Body awareness is a heightened consciousness of how the body moves. Such awareness can help identify and address any changes, needs or poor movement patterns in the body. By utilization of mind body techniques like those used in yoga and Tai chi and visualization techniques like those used in Feldenkrais the body's ability to make adjustments to movement execution processes are enhanced, possibly enabling the body to enhance its ability to adapt to its sometimes-changing ability levels as effected by MS.

Living with MS can mean change and stress. Stress depletes an individual both emotionally and physically and can add to fatigue. Physical activity acts as a form of stress management. Yoga, Tai Chi, aquatics, Pilates and Feldenkrais can be a great mind body tool for stress reduction by assisting in lowering levels of "harmful' stress, which attacks the immune system. The purpose of relaxation is to consciously dampen physical processes through manipulation of cortical influences. This is based on the belief that the mind influences the body and the body influences the mind. What happens is that physiologically as one relaxes, muscle tension decreases (which can help reduce spasticity) the heart and respiratory rates slow, and mental attention shifts, helping to increase concentration.

Balance & Coordination-- Coordination and balance involve a sequence of muscle actions to control movement. Problems with coordination and balance are quite common among people with multiple sclerosis, and result in poor posture and alignment. Exercises that promote proper posture are essential to effective body mechanics and extremely important in maintaining proper body alignment. This sequence of muscle actions rely on core muscle groups (also known as "the core") to aid individuals to support their body weight and move with control, quality and speed. The gains in balance, control and stabilization ultimately aid walking and weight transfer movements. Poor balance and posture can create a forward flexion at the hips and add to the development of chronic back pain.

Roles and Expectations of the Fitness Professional

As fitness professionals you provide students the opportunity to learn about activities that focus on movement that can positively impact activities of daily living. Rehabilitation professionals focus on therapeutic services with goals that differ from those of general fitness instruction. As an instructor, remember to stay within your realm of practice, and be sure to recognize when to refer on to the appropriate health professional. Do not offer medical advice, even if you are a health professional by trade. You may share information and experience, but refrain from giving personal interpretations, giving advice, or offering specific treatment recommendations.

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MODULE 4: Roles & Expectations of the Fitness Professional

The following will help you better understand your role and expectations as a fitness instructor when working with a group or students/clients individually:

Do's	Don'ts
Use general screening techniques that may consist of a health history and non-invasive fitness testing (e.g., strength, flexibility), etc.	Assess neurological manifestations and evaluate quality of movement.
Design and implement fitness/ wellness programs that address the body as a whole.	Make a diagnosis and prescribe a treatment-based program. This includes the collection of data for functional, financial, and other outcomes for independence restoration.
"Hands Off" policy is practiced by helping participants perform exercises independently. Touching participant is limited to spotting and guiding/cueing-example, "Lengthen the spine" as the instructor lightly runs fingertips up spine. After several verbal cues without response or modification from the student then a hands-on approach may be necessary to avoid injury.	"Hands On" approaches when client may need assistance to perform movement, such as facilitating or assisting with movement of limbs.
Encourage student to self-transfer when able to do so. Should they need assistance, request that they bring a personal assistant to help.	Unless certified and/or experienced in transferring skills do not attempt to transfer a student or allow other students in a class setting to assist.
Provide an overall objective of physical well-being and achieving overall fitness goals.	Provide an overall objective that is on improving specific function(s) until a plateau or stable condition is reached.
Provide group and one-on-one services. "Customers" are called students/participants (group setting) or clients (one-on-one setting).	Provide one-on-one treatment service where "customers" are called patients.
Stay within your realm of practice and expertise. While students may ask for advice around other lifestyle practices, referral to the appropriate professional for accurate advice should be made.	Provide general information or prescriptive plan about topics outside the scope of expertise.