Flex Therapist CEUs

Multiple Sclerosis

1. What is the primary characteristic that differentiates Primary Progressive Multiple Sclerosis (PPMS) from Relapsing-Remitting Multiple Sclerosis (RRMS)?

A. PPMS has distinct relapses and remissions, while RRMS has a continuous progression from onset.
B. PPMS is driven by inflammation, whereas RRMS is driven by neurodegeneration.
C. PPMS involves a continuous, gradual worsening of neurological function from the onset, while RRMS has periods of relapse and remission.
D. PPMS primarily affects young adults, while RRMS often affects older adults.

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2. Which exercise intervention is most likely to improve the quality of life in patients with MS?

A. High-intensity interval training to increase muscle hypertrophy.
B. Aerobic exercise that enhances cardiovascular endurance.
C. Isometric exercises to improve muscle bulk.
D. Swimming based solely on individual preference with no structured routine.

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3. In the context of MS, what role do astrocytes predominantly play when it comes to repairing damaged CNS tissue?

A. Astrocytes regenerate the myelin sheath effectively around damaged axons.
B. Astrocytes primarily create scar tissue (sclerosis) in damaged areas, which can affect nerve signal transmission.
C. Astrocytes remove damaged axons through phagocytosis.
D. Astrocytes facilitate remyelination through the release of neurotrophic factors.

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4. Which cognitive impact is most commonly associated with worsening symptoms in MS over time?

A. Enhanced problem-solving skills.
B. Improved information processing speed.
C. Decreased memory retention and concentration difficulties.
D. Increased verbal fluency and recall abilities.

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5. What is a key factor in diagnosing Relapsing-Remitting MS (RRMS) as opposed to Progressive-Relapsing MS (PRMS)?

A. RRMS patients never experience complete recovery between relapses.
B. PRMS involves a steady progression of disability from the start, with intermittent relapses.

C. RRMS is characterized by a continuous decline in function with no distinct relapses.
D. PRMS symptoms always improve completely between relapses.

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6. Which of the following is a characteristic that differentiates a true relapse from a pseudo-relapse in multiple sclerosis?

A. True relapses involve new CNS lesions.
B. True relapses are triggered by factors like heat or illness.
C. Pseudo-relapses involve new CNS lesions.
D. Pseudo-relapses require hospitalization.

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7. What is a possible consequence of worsening MS symptoms on brain structure?

A. Increased formation of synaptic connections.
B. Reduced inflammation.
C. Accumulation of lesions in the CNS.
D. Enhanced cognitive function.

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8. Which of the following treatments is typically used to manage severe relapses that do not respond to corticosteroids in MS patients?

A. Plasma exchange
B. NSAIDs
C. Antidepressants
D. Gabapentin

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9. How does regular exercise influence MS-related symptoms?

A. Increases fatigue and cognitive decline.
B. Improves endurance, strength, and flexibility.
C. Triggers new CNS lesions.
D. Makes heat sensitivity worse.

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10. Using the McDonald Criteria, what is required for diagnosing MS in a patient with one clinical attack and evidence of one lesion?

A. Only dissemination in space (DIS) is required.
B. Only dissemination in time (DIT) is required.
C. Both DIS and DIT are required.
D. No further evidence is required.

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11. Which assessment tool is utilized to measure the resistance felt by a clinician when passively moving a patient's limb through its range of motion to estimate spasticity severity?

A. Berg Balance Scale
B. Functional Independence Measure
C. Modified Ashworth Scale
D. Fatigue Severity Scale

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12. In the context of multiple sclerosis (MS), what is the primary cause of foot drop observed during gait analysis?

A. Weakness in the hip flexor muscles
B. Weakness of the dorsiflexor muscles
C. Weakness in the ankle plantarflexor muscles
D. Weakness of the quadriceps muscles

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13. When using the Timed Up and Go (TUG) test, which score indicates a high risk of falling?

A. Less than 10 seconds
B. 10 to 12 seconds
C. 13 to 14 seconds
D. 15 seconds or more

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14. How does regular exercise benefit individuals with multiple sclerosis in terms of neuroplasticity?

A. By preventing muscle atrophy and promoting muscle growth
B. By reducing joint stiffness and improving flexibility
C. By enhancing the brain’s ability to form new neural connections
D. By lowering the risk of cardiovascular disease

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15. What assessment tool would a therapist likely use to evaluate the impact of multiple sclerosis on a patient's physical and psychological well-being over the past two weeks?

A. Modified Ashworth Scale
B. Multiple Sclerosis Quality of Life-54
C. Fatigue Severity Scale
D. Multiple Sclerosis Impact Scale (MSIS-29)

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16. When designing an exercise program for individuals with Multiple Sclerosis (MS), it's important to consider:

A. Starting with high-intensity exercises to build endurance quickly
B. The individual's specific symptoms, such as fatigue and heat sensitivity
C. Focusing exclusively on aerobic exercises to improve cardiovascular health
D. Avoiding strength training to prevent muscle fatigue

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17. Why is it crucial to include a warm-up and cool-down in the exercise regimen for people with MS?

A. It helps to maintain cardiovascular fitness and endurance.
B. It prepares the body for exercise and promotes recovery, reducing muscle stiffness and aiding recovery.
C. It ensures a high-intensity workout and increases muscle mass quickly.
D. It diminishes the need for adaptive equipment during workouts.

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18. Which approach best describes the methodology for safely progressing exercise intensity in individuals with MS?

A. Start with moderate intensity and increase rapidly to build muscle strength quickly
B. Begin at a comfortable pace and gradually increase duration and intensity based on individual comfort levels and symptom management
C. Engage in high-impact aerobic activities from the beginning to gauge endurance levels
D. Avoid any progression in intensity to prevent symptom exacerbation

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19. What are the benefits of combined endurance and resistance training for patients with MS?

A. It solely focuses on enhancing muscle mass and reducing the risk of falls
B. It primarily improves mood and mental well-being through the release of endorphins
C. It integrates cardiovascular health with muscle function improvement, enhancing overall physical well-being and participation in daily activities
D. It rapidly enhances muscle strength without the need for professional assistance

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20. How should flexibility training be adapted for individuals with MS?

A. Focus on high-intensity stretching to improve joint flexibility rapidly
B. Avoid stretching muscles affected by spasticity to prevent injury
C. Utilize static and dynamic stretching techniques to improve range of motion, incorporating activities like yoga and Pilates
D. Skip any forms of flexibility training as it doesn’t significantly impact physical function

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21. Which type of muscle fiber adaptation is most likely to occur as a result of continuous cardiovascular exercise in individuals with multiple sclerosis?

A. Shift toward more oxidative muscle fibers like type I fibers
B. Increased proportion of glycolytic muscle fibers like type IIb fibers
C. Transition from type IIa to type IIx muscle fibers
D. Reduction in mitochondrial density within muscle fibers

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22. How does continuous cardiovascular exercise contribute to overall physical function for individuals with multiple sclerosis?

A. By significantly increasing muscle mass and reducing fat
B. By shifting muscle fibers to glycolytic types for quick energy bursts
C. By enhancing muscle contractile properties and improving endurance
D. By reducing muscle hypertrophy and leading to muscle atrophy

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23. In which way can Functional Electrical Stimulation (FES) improve mobility in individuals with MS?

A. By inhibiting muscle contractions to reduce overuse injuries
B. By activating muscles that do not respond adequately due to neurological impairments
C. By providing continuous passive motion without muscle activation
D. By primarily focusing on respiratory muscle strength

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24. What modifications might be recommended for a patient with multiple sclerosis in the early stages to improve safety and independence at home?

A. Installing non-slip mats and grab bars in the shower
B. Introducing power wheelchairs with custom seating
C. Utilizing mechanical lifts for bed and chair transfers
D. Implementing voice-activated home automation systems

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25. What benefit does incorporating Tai Chi provide for individuals with multiple sclerosis?

A. Enhances cardiovascular fitness through high-intensity movements
B. Strengthens upper body muscles through rapid movements
C. Promotes relaxation and improves balance through slow, controlled movements
D. Increases muscle mass primarily in the lower limbs

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26. What role does a dietitian play in managing MS symptoms?

A. Suggesting modified food textures or nutrient-dense, easy-to-swallow options to address difficulty swallowing.
B. Providing exercise regimens to improve strength and flexibility.
C. Administering medications to control bladder dysfunction.
D. Conducting assessments to determine cognitive impairments.

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27. Which of the following symptoms are commonly addressed by urologists managing MS patients?

A. Memory loss and attention difficulties.
B. Lower extremity spasticity and muscle weakness.

C. Urgency and urinary retention.
D. Fatigue and balance issues.

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28. How does involving a multidisciplinary healthcare team benefit MS patients?

A. It ensures the patient receives a broad range of perspectives but may complicate decision-making.
B. It makes it easier for each specialist to work in isolation.
C. It addresses the full spectrum of the patient's needs through collaborative care.
D. It primarily focuses on the patient's physical symptoms rather than their cognitive and emotional needs.

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29. How can exercise affect MS patients' quality of life?

A. It primarily improves cognitive function and memory.
B. It enhances endurance, strength, and flexibility, thus improving overall quality of life.
C. It is mainly used to manage bladder dysfunction.
D. It only benefits flexibility without impacting strength or endurance.

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30. What assessment tools are essential for evaluating balance and mobility in MS patients?

A. Berg Balance Scale, Mini-Mental State Examination, and 6-Minute Walk Test.
B. Timed Up and Go (TUG) Test, Berg Balance Scale, and 6-Minute Walk Test.
C. Timed Up and Go (TUG) Test, Mini-Mental State Examination, and Timed 25-Foot Walk Test.
D. Berg Balance Scale, Timed 25-Foot Walk Test, and 6-Minute Walk Test.
