Flex Therapist CEUs

Chronic Musculoskeletal Conditions and Neuroplasticity in the Central Nervous System

1. Neuroplasticity is an intrinsic fundamental neurophysiological feature that refers to changes in _____ within the nervous system that occurs continuously throughout a person's lifetime.

A. Structure

B. Function

C. Organisation

D. All of the above

2. Neuroplastic changes in sensory-motor areas are stimulus driven and result in lasting neuroplastic changes when the internal and external pressures are all of the following, except:

A. Non-repetitive

B. Salient

C. Involve learning

D. Require sustained attention

3. Neurophysiological changes result in the amplification of noxious and innocuous stimuli within which of the following areas of the spinal cord in chronic pain states?

- A. The ventral root
- B. The lateral horn
- C. The dorsal horn
- D. All of the above

4. Studies in subjects with Carpal Tunnel Syndrome reveal all of the following, except for:

A. Changes along the afferent pathway in the spinal cord, brain stem, and S1.

B. A decrease in grey matter volume.

C. A loss of spatially segregated representations of digits 3 and digits 4 in the contralateral S1 that correlates with changes in nerve conduction velocity.

D. All of the above were revealed in subjects with CTS.

5. Interventions targeting changes in somatotopic reorganization through the use of sensory discriminative training and visual distortion can renormalize the S1 representation and decrease pain.

A. True

6. Motor skill learning involving exercises to specifically recruit the transverse abdominus muscle, specifically a walking exercise, could restore the representation within M1 and EMG activation pattern in CLBP subjects to that seen in healthy controls.

A. True

B. False

7. Motor skill training has proven successful in:

A. The treatment of some musculoskeletal conditions.

- B. Improving task performance.
- C. Helping promote neuroplastic changes in M1.
- D. All of the above.

8. Increased insular activation is correlated with pain intensity, while mPFC activation is correlated with pain duration in CLBP subjects.

A. True

B. False

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