Somatic Dysfunction

A somatic dysfunction is any altered function of the framework of the body, including bones, joints, muscles and fascia. This altered function can affect blood supply, lymph flow and nervous function. The diagnostic criteria can be remembered with the mnemonic TART, which stands for Tissue Texture Change, Asymmetry, Restriction of Motion and Tenderness. Viscerosomatic reflexes cause somatic dysfunctions. The viscera that is pathologic causes autonomic input to affect the somatic components palpable to the practitioner. Furthermore, somatic dysfunction is characterized as either acute or chronic.



PLAY PICMONIC

Characteristics

Altered Musculoskeletal Functions

Altered Muscle-skeleton

A somatic dysfunction is defined as an altered function or impairment of the framework of the body, that is, bones, joints, muscles and fascia. This altered function can affect related blood supply, lymph flow and/or nervous function. The diagnostic criteria can be remembered with the mnemonic TART, which stands for Tissue Texture Change, Asymmetry, Restriction of Motion and Tenderness. Furthermore, the qualities of these findings may characterize a somatic dysfunction as either acute or chronic.

Diagnostic Criteria (TART)

Tissue Changes

Tissue-box with Delta-triangle

Tissue texture change is an objective physical exam finding characterized by abnormal tissue quality upon palpation. This is subject to clinical judgement by the practitioner and recognition improves with an individual’s experience. Acute tissue texture changes will often be hypertonic, spasmodic, warm, erythematous, boggy, or edematous. Chronic tissue texture changes will likely be hypotonic, flaccid, pliable, cool, pale or stringy.

Asymmetry

Asymmetry

Asymmetry is best assessed by evaluating corresponding bones, joints and muscles on the contralateral side. Acute somatic dysfunction causes obvious asymmetry whereas chronic somatic dysfunction with asymmetry will present with compensation in other parts of the body.

Restriction

Restrictive-belt

Restriction generally refers to restriction of range of motion in a joint. There are two normal ranges of motion: physiologic, in which the patient actively moves through a range of motion, and anatomic, where the practitioner moves the joint through a passive range of motion. A restrictive barrier is any barrier that limits the physiologic range of motion. An acute somatic dysfunction will most likely cause a painful restriction of motion, and a chronic somatic dysfunction will likely have a less painful restriction of motion.

Tenderness

Tenderizer

Tenderness is any pain that is elicited upon palpation that would not normally produce pain. This is the only diagnostic criteria that is not objective, as it requires patient feedback. Tenderness is more prominent in acute somatic dysfunction and less prominent in chronic somatic dysfunctions.

Considerations

Sign up for FREE at picmonic.com

Viscerosomatic Reflexes

Visor-sumo-tick with Reflex-hammer

Viscerosomatic reflex is a term for when autonomic input from the viscera causes somatic dysfunction. The term for this input by the autonomic nervous system onto the musculoskeletal system is dysautonomia. Detection of these reflexes is useful both as diagnostic criteria and as a therapeutic measure. It is important to know that the spinal cord levels of the visceral organs' preganglionic neurons correspond best with viscerosomatic reflexes.

Acute vs Chronic

Acute-angle vs Crone

Acute somatic dysfunction will often feel hypertonic, spasmodic, warm, erythematous, boggy, and/or edematous with apparent painful restriction of motion, uncompensated asymmetry and exquisite tenderness. Acute somatic dysfunction is uncommonly associated with viscerosomatic reflexes. Long standing, chronic somatic dysfunction will feel hypotonic, flaccid, pliable, cool, pale and/or stringy; there will be asymmetry but with compensation from other parts of the body, restrictions of range of motion and less tenderness to palpation than acute somatic dysfunction. Viscerosomatic reflexes are relatively common in chronic somatic dysfunctions.

Sign up for FREE at picmonic.com