Biopsychosocial Physical Therapy Approach for Ehlers-Danlos Syndrome

Patient Name: _____ DOB: _____ Date: _____

Concern Rx	**Possible Physical Therapy Management Approaches**
Pain Assessment	☐ Identify type of pain (nociceptive, neuropathic, sensitization/neuroplastic, neurogenic inflammation). This helps identify treatments most likely to decrease pain.
	☐ Identify source of pain (tissue stress, inflammation, neuroplasticity, distress, etc.). Helps know what to treat.
	☐ Identify factors contributing to persistence of pain. How to prevent pain/tissue damage or neuroplasticity
Education	☐ Education to address musculoskeletal contributing factors: posture, body mechanics, ergonomics, joint protection. How to prevent pain/tissue damage.
	☐ Education to address neurological contributing factors: nerve sensitivity, brain sensitivity, pain neuroscience education. Suggests how to calm oversensitive nerves that amplify and perpetuate pain.
	☐ Education to address psychosocial contributing factors: stress, anxiety, depression, fear avoidance, pain persistence behavior, sleep disturbance. Address factors that amplify/perpetuate pain.
	☐ Education regarding self-management of pain using exercise, relaxation, TENS, heat, ice, topical rubs, mindfulness meditation, etc.. Teach patients ways to decrease/control pain other than medications.
	☐ Education regarding use of braces, splints, orthotics, assistive technology, environmental modification. Teach patients ways to protect fragile tissues while maintaining/improving function.
	☐ Education about postural orthostatic tachycardia syndrome (POTS) and mast cell activation syndrome (MCAS) as common comorbidities. Self-care.
Exercise	☐ Exercise to address contributing factors: posture, muscle tightness, muscle weakness, coordination problems, non-muscle tissue weakness, trigger points. Decrease musculoskeletal contributing factors.
	☐ Neuromuscular re-education for motor control training, muscle recruitment, balance, relaxation. Decrease muscle pain and tissue damage from muscles and joints moving improperly.
	☐ Aerobic exercise to restore normal pain inhibitory pathways. Restore normal pain-decreasing neural pathways that become inactive when people become sedentary. Improve function.
Manual therapy	☐ Manual therapy to restore tissues that painful or out of alignment: trigger point release, soft tissue mobilization, myofascial release, joint mobilizations (when appropriate). Dry needling where allowed.
Taping	☐ Kinesiotaping or other taping for alignment, proprioception, stability.
Modalities	☐ Modalities to address pain or inflammation: heat, ice, TENS, ultrasound, low-intensity laser.
Joint Instability	☐ Education to address musculoskeletal contributing factors: posture, body mechanics, ergonomics, joint protection. How to prevent pain/tissue damage.
	☐ Education regarding use of braces, splints, assistive technology, environmental modification. Teach patients ways to protect fragile tissues while maintaining/improving function.
	☐ Neuromuscular re-education for proprioception, stability and strength. Includes Kinesio/Rock taping. Teach nerves/muscles to improve stability.

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Developmental delay	☐ Education, neuromuscular re-education, as for joint instability. Better motor control and strength optimizes function, minimizes pain and chance of injury. ☐ Bracing, orthotics or environmental adaptations to improve function. ☐ Educate about relationship between HSD and neurosensitivity: ASD, ADHD
Decreased function	☐ Management of pain, as described above. Decreasing pain can improve function and decrease fear of movement.
	☐ Education and neuromuscular training to address fear of movement. Decrease fear of movement that amplifies pain and discourages people from doing what they want to do.
	☐ Education about use of orthotics, braces, splints, assistive technology, environmental modification. Teach patients ways to protect fragile tissues while maintaining/optimizing function.
	☐ Exercise to increase strength, motor control, muscular and cardiovascular endurance. The less fit you are, the harder and more painful it is to do things; the more fit, the more you can do without pain or tissue damage.
Sleep disorder, Fatigue	☐ Assessment for POTS; education about POTS self-management using fluids, electrolytes, positioning, compressive stockings, exercise. Managing POTS can decrease symptoms.
	☐ Education about sleep hygiene, relaxation, physiological quieting. Improve sleep quality.
	☐ Problem-solving impact of pain on sleep disturbance (e.g., positioning in bed, bed surface). Address pain-related reasons for sleep disturbance.
	☐ Education about pacing, body mechanics, assistive technology. Be efficient.
	☐ Graded exercise therapy. Very gradual increase in exercise rather than boom/bust cycles.
Anxiety	☐ Assessment for POTS; education about POTS self-management. Decrease physical anxiety symptoms.
	☐ Education: about EDS, relaxation, physiological quieting. Calm nervous system.
	☐ Neuromuscular re-ed for kinesiophobia, relaxation, biofeedback. Increase confidence in movement. Calm nervous system.
	☐ Exercise: stretching, relaxation, aerobic. Calm nervous system.
Excessive inflammation	☐ Education, relaxation training, biofeedback for relaxation, aerobic exercise (stimulates immune system).
	☐ Modalities to decrease localized inflammation during flares: non-thermal ultrasound, phonophoresis, iontophoresis, ice.
Gastroparesis	☐ Education, abdominal propulsive massage, aerobic exercise, trigger point management, visceral mobilization, biofeedback. (visceral mob training)
Incontinence	☐ Education, biofeedback for muscle control, exercise. (women's /men's health specialist)
Vaginal pain	☐ Education, biofeedback for muscle control, exercise, physiological quieting. (women's health specialist)
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