

Therapeutic Muscle Stretching: Clinical Findings

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Patients displaying symptoms of musculoskeletal dysfunction pain and/or constrained joint movement should be examined to assess joint and muscle function. If the examination reveals shortened muscles and/or muscle spasm, stretching is indicated, preferably therapeutic muscle stretching (TMS).

As a preventive measure, all young children should be examined on a regular basis. Treatment is indicated if they exhibit signs of disturbed muscle function, even if they are without symptoms.¹

Clinical research supporting this premise was performed in 1960. Karl Lewit, a Czechoslovakian MD conducted a study of 72 school-aged children over a six-year period who had shown some impaired function. These were in the areas of scoliosis, pelvic torsion, cervical blockage (restriction), and leg length discrepancies. One half were treated, the other half left as controls. The spinal column, extremities, and musculature were thoroughly tested.

With a few exceptions, the significant finding from this study was that impaired function in the pelvic and craniocervical region remained constant if not treated. On the other hand, in the group that received treatment, there were only a few relapses.²

This supports the argument advanced by Schoen (1956) and by Gutmann and Wolff (1959) that latent functional lesions can appear earlier in the locomotor system than do degenerative changes, and that these changes alone can cause symptoms without structural change.²

In 1979, Vladimer Janda, a Czechoslovakian neurologist working with Lewit, found that patients with poor motor patterns and those inclined to muscular imbalances had:

- minor neurological disturbances (microspasticity, clumsy or slightly uncoordinated movements)
- slight sensory impairment (proprioception)
- adapted poorly to stress situations as a result of poorly coordinated behavior.²

He terms this condition "minimal brain dysfunction," which he found in 10-15% of the child population.

The somatic and psychological findings in the child population were then compared with findings in an adult population who had poor motor patterns, producing relapses in vertebrogenic disorders.

Janda concluded that this child population, as adults, present with pain as the primary symptom because of small neurological changes that result in the form of disturbed motor function.

Both Lewit and Janda recommend stretching shortened muscles prior to training their weaker antagonists. This results in more effective rehabilitation and rapid establishment of muscular balance.

Therapeutic muscle stretching has been successfully used to correct muscular imbalances that are associated with poor motor patterning.

A reasonable treatment plan would include chiropractic manipulation, TMS, followed by strengthening and coordination/proprioceptive training to correct the vertebrogenic disorders in patients who suffer from relapses in their typical presentation.

References:

1. Evjenth, O., and J. Hamberg. Muscle Stretching in Manual Therapy, Vol. 1, Alftra Rehab, Alftra, Sweden, 1985.
2. Lewit, K. Manipulative Therapy in Rehabilitation of the Motor System, Butterworth & Co. Ltd., London, England, 1985.

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