

A Motor Learning Approach to Orthopaedic Dysfunction: The Feldenkrais® Method

By Frank Wildman, Ph.D.
presented at the annual conference of
International Federation of Orthopaedic Manipulative Therapists
Vail, Colorado -- June 5, 1992

INTRODUCTION: In recent years, dynamical systems models of motor learning and motor control have advanced. Less well known are powerful new technologies with application to movement dysfunction and orthopaedic care which have emerged. Foremost among these new system technologies is the Feldenkrais Method.

Reviews of literature and quantitative analysis of spinal mobilization and manipulation have concluded that efficacy has yet to be established reliably under controlled conditions. Meta-analysis of the efficacy of spinal mobilization and manipulation has concluded that the effects of both were greater when provided in conjunction with other forms of treatment as well as within the month after therapy. The Feldenkrais Method addresses this problem in orthopaedic care by expanding the concepts and technologies of manual approaches.

METHODS: The Feldenkrais Method works with the intersections of function, learning, and biomechanics. The Method is designed to inhibit patterns of habitual neuromuscular rigidity that maintain patterns of pain and dysfunction. The Method also expands motor options and provides strategies for new ways of moving. Increased sensitivity and reduced muscular stress in combination with expanded motor possibilities result in improved motor learning, efficiency, and ease of movement.

The Method involves two parallel modalities: exercises, (more aptly movement lessons), called Awareness Through Movement® which are verbally guided; and a system of manual facilitation called Functional Integration®.

The exercises/lessons consist of a large array of precisely structured movement explorations based on developmental movements and ordinary functional activities as well as on more abstract explorations of joint, muscle, and postural relationships. There are approximately 1000 hours of movements in the Method covering all human functions.

Among the strengths of the Feldenkrais Method for orthopaedic care is the ability to approach the weak link in any group of muscles and to target any joint action. Through highly variable functional activities, selective atrophy of fast or slow twitch muscle fibers are dealt with, and the motion of any joint becomes involved in a highly functional action -- an action that the patient learns.

In Functional Integration, the practitioner promotes changes in the patient's body organization by touching and moving the patient

in ways that allows the development of new functional movement patterns.

DISCUSSION: Many orthopaedic problems arise from the quality of a person's movement. This includes both effort patterns and biomechanical strain patterns. Affecting mobility of a joint segment may achieve a temporary solution to the patient's problem but rarely addresses the person's overall quality of motion.

Even when there is a definite genesis for a dysfunction, a Feldenkrais Practitioner will address the perceptual, mechanical, and neuromuscular constraints that often contribute to that person's difficulty. In this systems perspective, all dysfunction is seen as embedded in and emerging from the whole pattern of perception and motion including the style of our movements.

In the Feldenkrais Method, manipulating or mobilizing a joint is not considered an efficient means of speaking to the level of response required in the patient's entire system of movement that maintains the pain or dysfunction.

By increasing the repertoire of movements and learning new strategies of movement that affect quality of motion, the human motion system within which pain and dysfunction is embedded becomes significantly altered.

The reflex muscle spasm and limitation of useful range in the patient with orthopedic dysfunction is dealt with by reforming patterns of movement that have been restricted or excluded since the early formation of motor patterns developed in childhood. As the repertoire of movement increases, the patient involves parts of himself that have habitually been excluded in his movement patterns or actions.

REFERENCES:

- 1). Di Fabio RP. "Clinical Assessment of Manipulation and Mobilization of the Lumbar Spine: a Critical Review of the Literature". *Physical Therapy*. 1986;66:51-54.
- 2). Ottenbacher K, Di Fabio RP. "Efficacy of Spinal Manipulation/Mobilization Therapy: A Meta-Analysis". *Spine*. 1985;10:833-837
- 3). Kamm, Kathi; Thelen, Esther; Jensen, Jody L.. "A Dynamical Systems Approach to Motor Development". *Physical Therapy*. 1990;70:763-775.
- 4). Scholz, John P. "Dynamic Pattern Theory -- Some Implications for Therapeutics". *Physical Therapy*. 1990;70:827-843.

AUTHOR: Frank Wildman, Ph.D., Director, The Institute for Movement Studies, 1832 Second Street, Berkeley, CA 94710; 800-342-3424