

OPEDIX[®] Technology and Kinetic Health

By Michael J. Decker, PhD

Michael J. Decker, Ph.D. is a biomechanical consultant in the Human Dynamics Laboratory at the University of Denver. His research interests include sports medicine and rehabilitation with specific focus on Kinetic Health. Mike has trained at the world famous Steadman Philippon Research Institute in Vail, Colorado and has taught human movement science at the University of Colorado. He has presented at several national and international meetings; published nearly 200 peer reviewed articles including manuscripts and abstracts; and received awards for research, academic and teaching excellence.

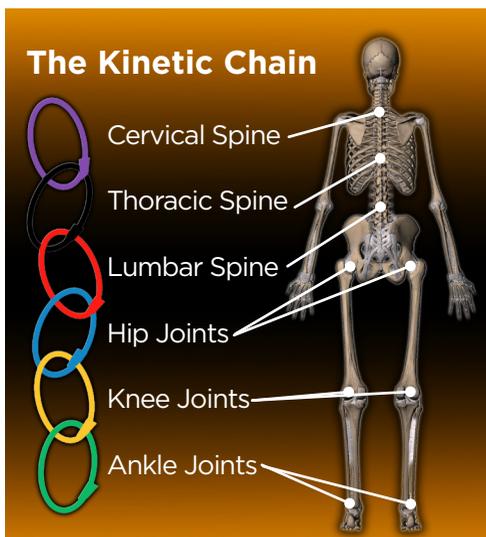
Kinetic Health

Your body is comprised of many joints that are connected structurally and functionally in a kinetic chain. Most of the joints in your body have a certain three-dimensional range of motion, and the concurrent motion of many joints produces a movement. A previous musculoskeletal injury, muscular fatigue or poor form during practice distorts the information recorded in the brain that stores how to move optimally. When the body does not move optimally, athletic performance is reduced, the rate of muscle fatigue is increased and the body is exposed to unnecessary stress that causes the progressive destruction of your joints. Opedix uses the term Kinetic Health to depict the relationship between the quality of movement and joint function, and describes how the design of their products forms a new comprehensive approach to solving movement-based problems for exercise or rehabilitation.

The Kinetic Chain

The body is a series of moving segments linked by joints. The sequencing of multiple joint motions and muscle activations to produce purposeful movement or posture is known as the kinetic chain. Due to the structural and functional

interconnections, our movement system has predictable patterns of dysfunction. Poor rear foot control, limited ankle range of motion, hip extensor and abductor weakness or tightness, limited spinal mobility or stability, limited pelvic motion or strength, and poor scapular control all lead to dysfunction in the patterns of our movement system. Cumulative exposures of dysfunctional movements lead to a localized clinical issue of the musculoskeletal system. However, the mechanism causing the symptoms may stem from an anatomical region that is different from the primary location of complaint.



OPEDIX Technology

Opedix has developed innovative products to enhance muscle and joint function in multiple regions of the body for the development or recovery of your kinetic health. Patented interregional support systems increase muscle flexibility and joint range of motion which allows the muscles to function at their optimal lengths and produce forceful or powerful movements. These improvements in joint mobility also enhance or

restore the muscles' ability to relay sensory information to the brain about the position of the body at any given point in time. This increase in proprioception enhances the stability of the joint by improving fine-tuned motion control and trains the kinetic chain to produce rapid adjustments in joint motion as well as efficient and optimal muscle function for reduced rates of muscle fatigue during activity.

To find out more about this technology, our newly released KNEE-Tec[™] Tights and CORE-Tec[™] Shorts, please visit our website at www.Opedix.com

