Muscles and Meridians

CONTRACTILE FIELDS – A new model of human movement

by

Philip Beach, Osteopathic and Acupuncture Practitioner, New Zealand

BACKGROUND

The science of human movement is mired in a plethora of regional models that describe human movement in terms of local domain and anatomical continuity. For example we describe external rotators of the hip joint, the integration of inner and outer units, myofascial continuity via anatomy trains, and prescribe exercises for core strength.

All the movements of everyday life involve the interaction of hundreds of named anatomical structures from the cephalic to the caudal poles of the body. How might this complexity be more adequately modeled?

APPROACH

To develop a model of human movement that is whole organism in scope. To do this requires both a philosophical and conceptual framework with careful consideration given to the metaphors employed in the description. Just teasing out named tissues from the anatomical matrix will not be sufficient. Rather we need to employ modeling theory, systems theory, the embryological development of movement tissues, the evolution of spinal complexity, and the identification of the primary building blocks that would need to interact to approximate what we actually see in our movement patterns. All big systems require this cross-disciplinary approach in the development of their models.

Core movement patterns that will be included in the model include spinal flexion/extension, lateral flexion, contra-twisting of the upper and lower girdles, squeezing and sucking of the torso, consideration given to the attachment of the limbs to the torso, the cardiovascular
and visceral systems, and the role of the kidneys. Borders between the fields of contractility will be delineated as fascial thickening often marks them. It is the interaction of these biomechanical building blocks that moves us.

The model proposed embeds the primary sense organs in specific fields as movement without input from the sense organs is nonsensical.

CONCLUSIONS

Every field of scientific enquiry develops, and is informed by, the models they construct. It is true to say that if we are unable to model the system we are studying we do not understand it. However at present, both our theoretical and clinical approaches to the order and disorder of human movement are derived from an ad-hoc amalgam of local models. To date there has been very little serious attempt to construct global movement models - might this be reflected in our difficulties in understanding and treating common conditions such as low back pain?

ARCHETYPAL POSTURES AND ERECTING FROM THE FLOOR TO TREAT ENDEMIC BACK PAIN

Back pain is proving to be recalcitrant to understanding and treatment. This workshop will offer a new approach to the assessment and treatment of endemic low back pain via Archetypal postures of repose, allied with exercises that are derived from the floor to standing transition - the Erectorcises.

For millions of years humans have spent many hours a day sitting on the terrain to rest and work, and then to erect from the terrain to standing. It is a developmental sequence we have all mastered as babies. A modern chair based lifestyle has had a profoundly deleterious effect on our musculoskeletal health by avoiding floor postures that the human physique has embedded both structurally and functionally. As a society if we are to counter our endemic back pain we need to revalue floor based rest, and train the exercise sequences involved in the floor to standing transition - that most basic of movements for an ape derived from Homo Erectus. This advice and the exercises described are applicable to all but the most infirm.

Context for the workshop will emerge from three perspectives.

- The first perspective is evolutionary via a brief account of the vertebrate transition from the lateral undulating of a fish to a walking bipedal ape.

- The second perspective looks at the embryology of musculoskeletal development, and the subsequent childhood development towards walking and running.
The third perspective is anthropological - all people, all cultures, across all time frames have found ease and rest on the floor, and maintained the strength to erect from the floor throughout their lives.

How to assess and facilitate ease in the floor postures and how to erect from the floor with good form and safety will be demonstrated in the workshop with the participants adopting the postures.

All biological systems have self-corrective mechanisms, which in this context are deeply embedded norms of rest, these postures are then functionally coupled with anti-gravity biomechanical patterns that then lift us from the floor. As a society we need to place a value on floor based rest. Deceptively simple advice can make a significant contribution to biomechanical ease.

Seminar Program _ same on each day (Tentative):

8:30am – 9:00am   Registration
9:00am – 10:30am   Session (Introduction to Archetypal Postures)
10:30am – 11:00am  Morning tea break
11:00 am – 12:30pm Session (Assessing and prescribing the postures)
12:30pm – 1:30pm   Lunch
1:30pm – 3:00pm    Session (The Dorso / Ventro Contractile Field)
3:00pm – 3:15pm    Afternoon tea break
3:15pm – 4:30pm    Session (The Lateral Contractile Field)
4:30pm -5.00pm     Conclusion and finish up the day

8:30am – 9:00am   Registration
9:00am – 10:30am   Session (Review, Introduce the Helical Contractile Field)
10:30am – 11:00am  Morning tea break
11:00 am – 12:30pm Session (The Limb Contractile Fields)
12:30pm – 1:30pm   Lunch
1:30pm – 3:00pm    Session (Manual therapy via a field approach)
3:00pm – 3:15pm    Afternoon tea break
3:15pm – 4:30pm    Session (The Radial, Fluid and Chiralic Contractile Fields)
4:30pm -5.00pm     Conclusion and finish up the day
Phillip’s BIO:

Phillip Beach DO, DAc.

Phillip Beach studied osteopathy at the British College of Osteopathic Medicine, and acupuncture at the London School of Acupuncture and Chinese Medicine. For many years he taught osteopathic technique and rehabilitation both in London and to many European schools. From his undergraduate days he has an interest in how a dissectionist approach to musculoskeletal anatomy could be applied to the understanding of living movement patterns. Drawing on embryology and evolutionary vertebrate biomechanics he has developed a new model of movement - the Contractile Field. This model of whole organism movement needed a new approach to assessment. The concept of biomechanical tune and the archetypal postures were developed. He lives in Wellington, New Zealand and is in private practice.

Date: 1 - 2 September 2012  Time: 9 am – 5 pm

Venue: Hong Kong

Fee: HKD4,200, 10% discount for registration before 15 Mar 2012.

For interested candidate, please prepare the cheque in the name of HEMAX Health Products Company Limited, with your name, address, email and telephone number on the back and send to Rm 1508, Hollywood Plaza, 610 Nathan Road, Mong Kok. Please feel free to visit http://www.phillipbeach.com, or contact Mr. LAU at on.lau@hemaxhealth.com or 2111 2880 for any questions.

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