Pain and dysfunction in the upper quadrant, including the thoracic spine, the shoulder, and the cervical spine, are common conditions seen in clinical practice. Whereas low back and pelvic pain have received considerable research in the last decade, functional research on the thorax remains limited. The principles which have been developed for the Integrated Model of Joint Function as it applies to the lumbar spine and pelvis can be applied to the thorax and although not yet based in scientific research, is a starting point for the clinician.

**Course Description**

The Thorax & Shoulder - An integrated approach is a three day course that reviews the current evidence and presents a clinical model for assessment and treatment of the thorax and shoulder complex. This course presents a structural framework for clinical decision making which enables the therapist to decide when, where and why different treatment interventions should be applied for successful rehabilitation.

Based on specific assessment tests, the clinician will learn how to integrate joint mobilization techniques, myofascial release techniques, breath work, segmental stabilization exercises as well as functional integration exercises into a complete multimodal program which is patient specific i.e. prescriptive - and thus most effective. On this course, this model of assessment and treatment will be applied to dysfunction within the thorax (spinal and costal components), scapula, clavicle and humerus (shoulder complex).

This course is based on a functional model, as opposed to one which seeks to identify pain generators. In this way, movement and control are optimized within and between the thoracic, cervical and shoulder regions. The ultimate goal is to restore function such that there is mobility as well as stability without rigidity of posture and without episodes of collapse: “Restoring Stability with Mobility”.

**Course Outline/Objectives**

This course will:

- Review the definitions of stability and the integrated model of function
- Present the biomechanics of the thorax and shoulder complex
- Discuss current knowledge on how stability is achieved for effective load transfer through the upper quadrant
- Present clinical tests which examine:
  - posture – regional and segmental postural assessment
  - functional movement - identify the sites (segments) of failed load transfer in the thorax, neck and shoulder complex
  - specific segmental joint mobility/stability for the joints of the thorax
  - the muscle systems: local and global muscle systems of the thorax, scapula and glenohumeral joint.
• common patterns of dysfunction including those of excessive compression (stiff joints, hypertonic global muscle system, joint fixation) and insufficient compression (loose joints, insufficient recruitment of the local muscle system)
• development of an effective treatment program including when and how to use manual therapy, education and exercise
• specific mobilization and neuromyofascial release techniques for the joints of the thoracic spine and shoulder complex
• the protocol for an evidence-based stabilization exercise program and the role of specific taping for the thorax and scapula
• exercises for restoring a neutral spine and scapular position. Techniques to restore neutral spine position in supine, sitting, standing, and prone over ball
• motor control training for the local muscle system – isolation and awareness training which extensively uses imagery and touch for facilitation. The focus will be on how to find the optimal strategy (best patient position, image, manual and verbal cues) for your patient
• cues and techniques to facilitate coordination of the local and global muscle systems during patient specific functional tasks

At the conclusion of this three day seminar, the participant will have an understanding of how the “Integrated Model of Function” applies specifically to the thorax and shoulder complex. In addition, the participant will have an increased understanding of how to design a multimodal treatment program which includes manual therapy and exercise and breath work from early rehabilitation to functional integration.

Course Preparation
To get the most from this course it is advised that the participant download and read Chapter 5 – Principles of the Integrated Model of Function from the 3rd edn of “The Pelvic Girdle” found at www.dianelee.ca. If necessary, review your anatomy. In addition, the following references will be useful.

The Thorax & Shoulder - An Integrated Approach

Course Requirements
Wear comfortable clothing including shorts/sports bra which are suitable for examination of the thoracic spine and shoulder complex (no racer or t-back bras).

Course Developers & Instructors – Diane Lee & Linda-Joy Lee
Diane Lee BSR, FCAMT, CGIMS
Diane Lee is a Physical Therapy graduate from the University of British Columbia, Canada, 1976. She qualified with distinction as a Fellow of the Canadian Academy of Manipulative Therapists in 1981 and went on to instruct and examine in the Canadian Orthopaedic post-graduate education system for 18 years. Currently, Diane is the owner as well as an education and clinical consultant at Diane Lee & Associates in White Rock, British Columbia, and is well known both nationally and internationally for her clinical work on pelvic dysfunction. She has integrated the recent scientific research on lumbopelvic function into a clinical model for assessment and treatment. This model was developed in conjunction with Dr. Andry Vleeming. She is currently collaborating with Linda-Joy Lee on the clinical application of this model. In addition to lecturing internationally on this topic, Diane is an editorial advisor for the journal Manual Therapy as well as the Journal of Manual and Manipulative Therapy and a Scientific Committee member for the Interdisciplinary World Congress on Low Back and Pelvic Pain.

Linda-Joy Lee BSc, BSc(PT), FCAMT, MCPA, PhD Candidate
Linda-Joy is a Physical Therapy graduate from the University of British Columbia, Canada, and UBC Wesbrook Scholar (1996). “LJ” became a Fellow of the Canadian Academy of Manual and Manipulative Therapists in 1999 with distinction and completed her certification in Intramuscular Stimulation (IMS) in July 2001. LJ is a clinical and education consultant at Synergy Physiotherapy in North Vancouver, BC. LJ has co-taught with Diane Lee since 2000, and is currently collaborating with Diane on several projects relative to the Integrated Model of Function. She developed the “Training the Trainers” course to complement Diane’s Postpartum Health for Moms educational program. LJ published a chapter on “Restoring Force Closure/Motor Control of the Thorax” in the book “The Thorax: An Integrated Approach” by Diane Lee and co-authored two chapters in the 3rd edition of “The Pelvic Girdle” by Diane Lee. In addition, she co-produced, along with Diane, a 4.5 hour DVD titled “An Integrated Approach to the Assessment and Treatment of the Lumbopelvic-Hip Region”. Passionate about new challenges, LJ is also pursuing a PhD investigating motor control of the thoracic spine and its relation to the lumbopelvic region at The University of Queensland with Professor Paul Hodges.