



Diagnosis of Persistent Low Back and Referred Lower Extremity Pain

Dr Mark Laslett

NZRPS, PhD, FNZCP, Dip.MT, Dip.MDT

New Zealand Board Registered Physiotherapy Specialist (Musculoskeletal)

Course structure commencing September 2017 reflects feedback from the 2016 and 2017 course participants regarding the financial and time commitment burden required by the earlier 6-9 month program. It is anticipated that the new structure will allow greater flexibility for post graduate students in planning their Continuing Professional Education studies. A good part of the motivation for change is to widen the course's appeal to professionals juggling busy lifestyles and the ability to finance long-course fees.

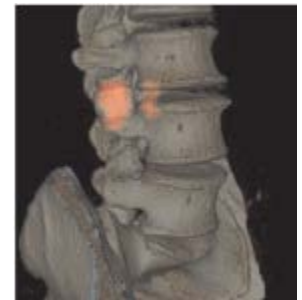


You may view a short public domain video that provides a basic description of the course concept here: <https://youtu.be/ARcLvEKpl7o>

Instead of being a single course that either crams a condensed version into 3-4 months (the International courses of 2017) or is fully comprehensive but spans 6 months or more (the New Zealand based course of 2016 & 2017), the course is now divided into three online modules and one module consisting of seminar days:

Module 1

- Introductory content (overview, general principles and basic examination procedures, principles of diagnosis)
- The Anterior Column (intervertebral disc, vertebral endplates and vertebral bodies as pain sources)
- Radicular syndrome (nerve root pain, radiculopathy, disc herniation and surgery for disc herniation)



Module 2

- The sacroiliac joint (structure, function & pain)
- The posterior column: zygapophyseal (facet) joint pain, spondylolisthesis and lysis
- 'Instability' related concepts
- Complex Case studies

Module 3

- The claudicant patient. Spinal stenosis & peripheral vascular disease
- The hip and buttock simulating pain referred from the low back to the buttock & lower extremity
- Other uncommon and rare disorders causing back pain and/or referred lower extremity pain
- Central sensitization & the psychosocial confounders of diagnosis & management
- Complex case studies. Equivocal findings and the multi-pathology case
- Wind up

Module 4 | Seminar Days

Ideally the seminar days should be spread evenly throughout the course to enable participants to interact with the instructor in a consistent and ongoing manner. This format will continue in New Zealand, but non-New Zealand courses pose the special problem of travel for the instructor. As a consequence, from 2018



International seminar day Modules will be held in locations that are sponsored, and at times that are convenient for the instructor.

Case study assignments: Resident New Zealand participants will be required to submit at least one case study assignment.

Forum Discussion: This is a very active and integral part of the New Zealand course, but not possible elsewhere. For Non-New Zealand courses, sponsors of seminar day modules will be encouraged to set up free online forums for the course and manage them independently of the instructor. This will allow for discussion, interaction, problem solving and sharing of information and resources.

Pre-requisites and course sequence for Modules 1, 2 & 3

Modules 1, 2 and 3 are sequential and must be taken in that order. Module 1 is a pre-requisite for participation in Module 4. New Zealand courses will have a Seminar day at or near the end of each Module.

Pre-requisite for registration with Module 4 Seminar day short course.

There is a major challenge in making Module 4 both financially sustainable and appropriately timed for participants. Consequently, registrations for Module 4 will have a precedence structure. Those people who have successfully completed Modules 1, 2 and 3 will be given precedence over those who have not attended a previous Module. For example, those who have completed Module 3 will have precedence over those who have completed Module 2. This precedence system is to ensure that there is incentive to complete as many of the online Modules prior to attending the Module 4 Seminar Days short course.

Module Content

Module 1	Duration (Mins)	Type of activity
Introduction and setup first activities	13	Audio Powerpoint
Section 1: Introductory topics		
References and Resource files		Pdf documents
Lesson 1 Introduction & basic Principles of Diagnosis	27	Audio Powerpoint
Lesson 2 Pain descriptions and pain drawings	34	Audio Powerpoint
Lesson 3 Red Flags	24	Audio Powerpoint
Lesson 4 Neurologic screening examination	34	Audio Powerpoint
Online Quiz		Self-assessment
Lesson 5 Causes of LBP and intro to Diagnosis by Subtraction	42	Audio Powerpoint
Lesson 6 The primary focus of this course	16	Audio Powerpoint
Forms and Questionnaire Resource files		Pdf Forms & docs
Case study documentation (Ben)		Pdf documents
Case study History (Ben)	13	Video
Case study Physical examination (Ben)	10	video
Case study clinical reasoning (Ben)		Ungraded self-assessment
Section 2: The Anterior Column		
References for Section 2 Biomechanics and Pathoanatomy		Pdf documents
Lesson 1 Anterior Column Biomechanics and Pathoanatomy	26	Audio Powerpoint
Intervertebral Disc Pathology and Biomechanics	9	Video



SOUTHERN MSK SEMINARS

SOUTHERN MUSCULOSKELETAL SEMINARS

Lesson 2 Mechanical Discogenic pain	45	Audio Powerpoint
Case study: Paco: simple mechanical discogenic pain	30	video
Lesson 3 Anterior Column Osteomyelitis and Discitis	15	Audio Powerpoint
Lesson 4 Vertebral Endplate Pain and Modic changes	36	Audio Powerpoint
References for Endplate (Modic) changes		Pdf documents
Lesson 5 Cases studies of discogenic pain	40	Audio Powerpoint
Lesson 6 Acquired Lumbar Deformities	41	Audio Powerpoint
References for Acute Deformities		Pdf documents
Case study: Lawrence Acute Lateral Shift Case Study	48	Videos (6)
Case Study: Ruth Acute Lateral Shift Case Study	125	Videos (3)
Case Study: Sandra Acute Lateral Shift Case Study	29	Video
Case Studies: Acute anterior derangement Case studies	26	Video 2 cases
Case Studies: Anterior derangement (archive material)	21	Video 2 cases
Lumbar Discography	17	Video
Case Study: Complex case Neil S Anterior column pain	54	Videos (4)
Assignment. Summarize diagnosis of anterior column pain		Self-review and summarization
Section 2 Quiz		Graded assessment
Section 3: Radicular (Nerve root) Syndrome		
References for Radicular Syndrome		Pdf documents
Lesson 1 Radicular Pain and Radiculopathy Basic Principles	11	Audio Powerpoint
Lesson 2 Radicular pain and lumbar disk herniation	41	Audio Powerpoint
References for lumbar discectomy and post-op management		Pdf documents
Lesson 3 Surgery for radicular pain & Radiculopathy	40	Audio Powerpoint
Discectomy under local anaesthesia Stephen Kuslich	11	Video URL
Variable neurologic deficit (Victor)	15	Video
Lesson 4 Adherent Nerve Root	26	Audio Powerpoint
Adherent nerve root video from Rob PT	6	Video URL
Official US Guidelines for diagnosis and treatment of lumbar disc herniation		Pdf documents
Section 3 Quiz		Graded assessment
Course evaluation		

Module 2	Duration (Mins)	Type of activity
Review of Module 1	30	Video

SOUTHERN MUSCULOSKELETAL SEMINARS



Case study of severe back pain (Berry) and concern over possible cauda equine syndrome	71	Video
Case study report (Berry) after initial consultation		Pdf documents
Case study follow up (Berry)	28	Video
Case study (Berry) MRI review	7	Video
Quiz for Case study		Graded Self-assessment
Case study non-centralizing anterior column pain	47	3 Videos
Imaging review MRI anterior column (Neil)	7	Video
Section 4: Sacroiliac Joint Pain		
References for SIJ and pelvis material		Pdf documents
Lesson 1 Sacroiliac Joint and PGP introduction	31	Audio Powerpoint
Lesson 2: Sacroiliac Joint Pain	50	Audio Powerpoint
Sacroiliac joint movement link to online resource	3	Video URL
Discussion on SIJ pain, movement & palpation link to online material		Public domain Blog
Case studies of SIJ testing two cases	31	2 Videos
Case study comparison. Study of uses of different degrees of force in provocation testing	4	Video
Complex Case Study: Rosie O (History)	40	Video
Complex Case Study: Rosie O (Intelliviewer session)	5	Video
Interventional Medical perspective on SIJ diagnosis & pain. Official view of Spinal Intervention Society		Link to online resource
Section 4 Quiz		Graded assessment
Section 5: The Posterior Column & 'instability'		
Lesson 1: Zygapophyseal (facet) joint Pain	40	Audio Powerpoint
References for spondylolisthesis & spondylolysis		Pdf documents
Lesson 2: Spondylolysis and spondylolisthesis	21	Audio Powerpoint
PET/CT imaging review Pars Interarticularis fracture	2	Video
Complex Case Study: Lindsey R (History)	31	Video
Complex Case Study: Lindsey R (Physical Exam & Rx)	51	Video
Lesson 3: Lumbar segmental instability, core strength	36	Audio Powerpoint
Calculating core strength and imbalance McGill method		Excel spreadsheet
Lesson 4: Acute severe low back pain in the Emergency Room	21	Audio Powerpoint
Section 5 Quiz		Graded assessment
Course evaluation		



Module 3	Duration (Mins)	Type of activity
Review of Module 2 & 3	30	Video
Section 6: Claudication, the hip & buttock		
References for spinal stenosis		Pdf documents
Lesson 1 Spinal stenosis	32	Audio Powerpoint
References for Peripheral Vascular Disease		Pdf documents
Lesson 2 Vascular causes of intermittent claudication	14	Audio Powerpoint
Case Study (Betty) History and physical examination	49	Video
Case Study (Betty) Follow up post surgery	21	Video
Lesson 3. The hip and buttock as a source of pain	24	Audio Powerpoint
Case study: Probable buttock pain source, but indeterminate. (Cheryl)		Pdf documents
Section 6: Quiz		Graded assessment
Section 7: The psychosocial dimension and the complex patient		
References for neuropathic pain & central sensitization		Pdf documents
Lesson 1: Central sensitization, neuropathic pain & 'Yellow Flags'	31	Audio Powerpoint
The psychology of pain. Link to Tamar Pincus presentation	3	Video URL
Complex Case Study: Rebecca R. Sensitization	40	Video URL
Lesson 2: LBP in the Emergency Department	29	Audio Powerpoint
Complex Case study (Jack) Early Notes		Pdf documents
Complex Case study (Jack) The SIJ that got away? 1	7	Video
Complex Case study (Jack) The SIJ that got away? 2	7	Video
Complex Case study (Jack) Physical examination	25	Video
Complex Case study (Jack) review in referrer's clinic	21	Video
Complex Case study (Mike) Initial follow up. Is it stenosis or PVD? 3 videos	31	Video
Complex Case study (Mike) NaF PET/CT scanning review	2	Video
Complex Case study (Mike) 12 month follow up Final Dx		Document
Section 7 Quiz		Graded assessment
Section 8: Final lesson & Wind up		
Lesson 1: Final course wind up	48	Audio Powerpoint
Course evaluation		

Note: This program content may be amended at any time, but will not be less comprehensive that stated above.

Total time for watching the online material just once is:

- Module 1:** Approximately 12 hours
- Module 2.** Approximately 11 hours
- Module 3:** Approximately 10 hours

Typically students often watch videos and lessons more than once. Time taken with reading papers, reading reports and case studies, doing quizzes and assignments are not included in these totals. Reading time varies enormously among students, but is likely to range from 10 to 30 hours per online Module. Thus



the minimum number of hours students should plan for is 30 hours per online Module. For planning purposes, Students should attempt to complete a Module in about 3 months (12 weeks), which means that the course time commitment might be 6 hours per week. This estimate is extremely approximate as student learning styles, personal experience and abilities differ enormously. This rough estimate includes video watching time, reading time, Quiz taking and assignments.

You can view a sample lecture which is Lesson 5, Section 1 of Module 1. It is in the public domain and may be shared with friends and colleagues: <https://youtu.be/p0xM90nr4i0>

Timing of online Modules

These will be announced on Southern Musculoskeletal Seminars website www.musculoskeletal.courses, on Twitter @marklaslett_NZ and Facebook <https://www.facebook.com/southernmskseminars/> and <https://www.facebook.com/Dr-Mark-Laslett-840670342719483/>

For organizational reasons, online course registrations will be open at least once a year for a month. Thus the maximum time available to complete all three modules will be 3 years, and the minimum period will be one year.

Module 4: Seminar Days

The seminar days will not contain any formal lectures or PowerPoint presentations. These days are seen as the opportunity to meet, engage in discussion and debate with the instructor and colleagues, face-to-face, in a non-threatening collegial environment. Two major parts of this Module are the opportunities to be taught and practice examination procedures, and to see live patients being examined and treated by the instructor.

It is planned that seminar days outside of New Zealand or Australia, will eventually be presented by teachers specifically designated and trained by Mark Laslett. Once he has identified teachers outside of the South Pacific context, the structure used in the New Zealand course will apply i.e. Seminar days will be conveniently placed within each Module. For courses presented by Mark Laslett outside of the Australasian context, Module 4 will be at least 2 days in duration (14 hours) with a preference towards 3 days (21 hours) in duration. Whether Non-New Zealand courses are 2 or 3 days will be based on course sponsor preferences. The timing of these Modules will depend on Mark Laslett's availability and tour schedule in the short to medium term.

Cost structure:

Online modules will cost NZ\$300 each, (about US\$212, €177, £163, or AUS\$266) using September 5 2017 exchange rates from Bank of New Zealand. If all three modules are paid up front together, a 10% discount will apply. Thus the discounted three online Modules would cost NZ\$810 (about US\$572, €478, £441, or AUS\$718). Check your own exchange rates as these will change from day-to-day.

The cost structure for Module 4 will reflect the course length and local costs. The costs will be similar to what is normal for an international quality speaker in the sponsor's location.

Overall, participants may spread the financial and time burden over 1-3 years, according to individual preference.

Important Caveat: The course content is constantly being modified to improve the quality of the educational experience. The content will change over time, and new material is always being added and some removed as better or more recent material becomes available. Total education hours for whole course (all four modules) is likely over 100 hours. This may be spread over 1-3 years.



SOUTHERN MSK SEMINARS

SOUTHERN MUSCULOSKELETAL SEMINARS

The Instructor

Mark Laslett was New Zealand's first registered musculoskeletal Physiotherapy Specialist (2013). This course is a unique opportunity to be trained in practical diagnostics by a clinician whose experience in diagnosis and treatment of musculoskeletal conditions spans some 45 years. He has taught over 250 diagnosis and treatment courses on the spine and extremities in Europe, Scandinavia, The UK, North America and Australasia. He has over 30 publications to his credit and his research on the diagnostic validity of the clinical examination of the lumbar spine & pelvis, is widely regarded and cited by others.

