

P2141 - Physiotherapy Practice 1: Neuromusculoskeletal Practice 2019/20 (Current Academic Year)

[View Online](#)

Module coordinator: Alison Kelly

Module team: Alison Kelly, Judith Lane and Sarah Bond

145 items

Week 2 (14 items)

In week 2 you will be introduced to foundational principles of NMSK examination, documenting patient records, clinical reasoning and outcome measures (goniometry and manual muscle testing). Please find your directed reading below. The reading below will provide you with a basis for what will be covered within your tutorial and practical sessions.

The readings marked **ESSENTIAL** - is required reading before your classes for that week to ensure participation and ability to follow the tutorial and practical classes.

Readings marked **RECOMMENDED** will enhance the knowledge and competence you have gained from the essential readings and will ensure you are developing a good depth of knowledge in the topic area.

Readings marked **BACKGROUND** are further information that will contribute further to your knowledge in this area and can be used as references for the future but are not necessarily essential to read in the current week. If you feel like reading more about certain topics then always feel free to explore the LRC's database.

NMSK examination Week 2 (14 items)

Subjective and Objective Assessment (7 items)

Musculoskeletal examination and assessment: a handbook for therapists, Volume 1, edited by Nicola J. Petty; Dionne Ryder, 2017

Book | **Essential** | Read chapter 2: Subjective Examination (from page 3-34).

This book is available as an electronic copy or a hard copy in the library.

This should be completed before your classes in Week 2

Musculoskeletal examination and assessment: a handbook for therapists, Volume 1, edited by Nicola J. Petty; Dionne Ryder, 2017

Book | **Essential** | From chapter 3: Physical Examination

Read from page 35-37 (stopping at physical examination step by step) for a brief overview of the physical examination.

Read from page 44 (Functional Ability/Physical Performance Tests) to page 48 (as far as combined movements)

Read from page 53 (muscle tests) to page 63.

Feel free to read more of this chapter however much of the content will be covered later on.

This should be read before your classes in Week 2.

The Flag System - Physiopedia

Webpage | **Recommended** | In the reading above you will notice that on p19 there is a table that looks at types of clinical flags. Have a look at this webpage to supplement your understanding on clinical flags.
This is a good webpage to refer back to if you need a quick reference.

Assessment Techniques (4 items)

Musculoskeletal assessment: joint range of motion and manual muscle strength, by Hazel M. Clarkson, 2000

Book | **Recommended** | You will be expected to demonstrate use of a goniometer in measuring range of motion of various regions of the body, in the module practical viva and on clinical placement. After the week 2 practical class you should practice this. There are many texts in QMU LRC which you may use to learn how to measure joint range of movement using a manual universal goniometer. Clarkson (2000) is just one of these texts. CLARKSON, H. M. 2000. Musculoskeletal assessment. joint range of motion and manual muscle strength. 2nd ed. London: Lippincott Williams & Wilkins. This can be found in the library as a hard copy

Active Range of Motion: Shoulder, 3/12/2015

Audio-visual document | **Recommended** | Use these videos to help you with practical techniques.

Shoulder Passive Range of Motion (PROM), 18/4/2018

Audio-visual document | **Recommended** | Use these videos to help you with practical techniques.

The Goniometer, 27/3/2012

Audio-visual document | **Recommended** | Use these videos to help you with practical techniques.

Outcome Measures (6 items)

Outcome Measures - Physiopedia

Webpage | **Essential** | Read this during week 2 to understand the importance and

purpose of an outcome measure in clinical practice.

Patient-reported outcome measures in advanced musculoskeletal physiotherapy practice: a systematic review - in Musculoskeletal Care, by Orna Fennelly; Catherine Blake; François Desmeules; Diarmuid Stokes; Caitriona Cunningham, 2018-03

Article | **Recommended** | Within this module we will be searching and using literature to support our knowledge and to underpin our learning. Start to have a look at literature related to the topics each week.

A comparison of electronic and manual dynamometry and goniometry in patients with fracture of the distal radius and healthy participants - in Journal of Hand Therapy, by Caroline E. Plant; Nicholas R. Parsons; Alison T. Edwards; Hayley Rice; Kate Denninson; Matthew L. Costa, 2016-01

Article | **Recommended** | Within this module we will be searching and using literature to support our knowledge and to underpin our learning. Start to have a look at literature related to the topics each week.

STarT Back Screening Tool - Physiopedia

Webpage | **Background** | Example outcome measure used in clinical practice. Familiarise yourself with different outcome measures that can be used in clinical practice. You may see these used in clinical practice. Also, when looking at case studies throughout the module you can consider when they could be utilised.

Lower Extremity Functional Scale (LEFS) - Physiopedia

Webpage | **Background** | Example outcome measures used in clinical practice. Familiarise yourself with different outcome measure that can be used in clinical practice. You may see these used in clinical practice. Also, when looking at case studies throughout the module you can consider when they could be utilised.

DASH - Disabilities of the arm, shoulder and hand

Document | **Background** | Example outcome measure used in clinical practice. Familiarise yourself with different outcome measures that can be used in clinical practice. You may see these used in clinical practice. Also, when looking at case studies throughout the module you can consider when they could be utilised.

Recording patient data (1 items)

Please view the ppt presentation that relates to this topic. You will find it in the week 2 folder on the Module Hub.

Week 3 (6 items)

In week 3 you will be introduced to principles of increasing muscle strength, power and endurance.

Please find your directed reading below. The reading below will provide you with a basis

for what will be covered within your tutorial and practical sessions.

The readings marked **ESSENTIAL** - is required reading before your classes for that week to ensure participation and ability to follow the tutorial and practical classes.

Readings marked **RECOMMENDED** will enhance the knowledge and competence you have gained from the essential readings and will ensure you are developing a good depth of knowledge in the topic area.

Readings marked **BACKGROUND** are further information that will contribute further to your knowledge in this area and can be used as references for the future but are not necessarily essential to read in the current week. If you feel like reading more about certain topics then always feel free to explore the LRC's database.

Therapeutic exercise (6 items)

Principles of musculoskeletal treatment and management: a handbook for therapists, edited by Nicola J. Petty; Kieran Barnard, 2018

Book | **Essential** | Read chapter 4: Function and Dysfunction of Muscle
READ ONLY

pages 86 (muscle and proprioception) to p91 (classification of muscle function)
pages 95 (skeletal muscle dysfunction) to p104 (production of symptoms)

Principles of musculoskeletal treatment and management: a handbook for therapists, edited by Nicola J. Petty; Kieran Barnard, 2018

Book | **Essential** | Read chapter 5: Principles of muscle and tendon treatment.

Therapeutic Exercise, by Carolyn Kisner; Lynn Allen Colby; John Borstad, 2017

Book | **Essential** | This reading gives you information about precautions and contraindications when applying resistance to muscles. Read the Box 6.12 on page 203 (general precautions) and the section on contraindications on pages 206/207

INTEGRATION OF STRENGTH AND CONDITIONING PRINCIPLES INTO A REHABILITATION PROGRAM - in International Journal of Sports Physical Therapy, 2011

Article | **Recommended** | Within this module we will be searching and using literature to support our knowledge and to underpin our learning. Articles will be used in tutorial classes as discussion aids. Start to have a look at literature related to the topics each week.

Considerations of the Principles of Resistance Training in Exercise Studies for the Management of Knee Osteoarthritis: A Systematic Review - in Archives of Physical Medicine and Rehabilitation, by Claire Minshall; Nigel Gleeson, 2017-09

Article | **Recommended** | Within this module we will be searching and using literature to support our knowledge and to underpin our learning. Articles will be used in tutorial classes as discussion aids. Start to have a look at literature related to the topics each week.

Therapeutic Exercise Foundations and Techniques : Foundations and Techniques, by Carolyn Kisner , and Lynn Allen Colby, 2012

Book | **Background** | Read chapter 6 (from page 157): Resistance Exercise for Impaired Muscle Performance.

This is a really good and informative chapter on resistance exercise. It is also a very long chapter. Use this for further reading or reference if more information is required.

Week 4 (29 items)

This week you will be introduced to the physiology of pain, soft tissue injuries and examination of the upper limb. Please find your directed reading below. This will provide you with a basis for what will be covered within your tutorial and practical sessions. The reading marked **ESSENTIAL** is required reading before your classes for that week to ensure participation and ability to follow the tutorial and practical classes. Readings marked **RECOMMENDED** will enhance the knowledge and competence you have gained from the essential readings and will ensure you are developing a good depth of knowledge in the topic area. Reading marked **BACKGROUND** are further information that will contribute further to your knowledge in this area and can be used as references for the future but are not necessarily essential to read in the current week. There are numerous physiotherapy texts that will provide you with comprehensive information on the topics covered this week, so if you feel like reading more then feel free to explore the LRC's database.

Pain (7 items)

Principles of neuromusculoskeletal treatment and management: a guide for therapists, by Nicola J. Petty; Nicola J. Petty, 2011

Book | **Essential** | Read chapter 8: principals of pain management. It might be helpful to take your own notes and revisit this chapter as required, further into your studies. The other recommended documents in this weeks reading will help to consolidate this learning.

Pain Mechanisms - Physiopedia

Webpage | **Essential** | For a brief overview on the subjective qualities of different pain mechanisms and pain types to help with your clinical reasoning, read this physiopedia page.

You don't need to read the clinical vignettes.

PAIN! Physiology - The Ascending Pathway, Descending Pain Pathway and the Substantia Gelatinosa - YouTube

Audio-visual document | **Recommended** | This is a nice video explaining pain processes.

Retrain Pain Foundation

Website | **Recommended** | This is useful resource for patients, but I would also encourage you to complete the course, as it will give you some simple explanations you can use with your patients.

TEDxAdelaide - Lorimer Moseley - Why Things Hurt, 2011-11-21

Audio-visual document | **Recommended** | In this video, Lorimer Moseley explores the concept of pain, and why and how we perceive pain. (15 min)

Understanding Pain in less than 5 minutes, and what to do about it!, 15/1/2013

Audio-visual document | **Recommended** | This simply explains chronic pain, and is a very useful resource to provide to patients.

Explain pain supercharged: the clinician's manual, by G. Lorimer Moseley; David S. Butler, 2017

Book | **Background** | This is an excellent resource for understanding pain. You are not expected to read the whole book this week, but you are encouraged to read this at your own pace through your studies. There are numerous resources available for enhancing patient and clinical understanding of pain, that you will be directed to later in the module.

Shoulder (11 items)

There is a wealth of information and literature available on shoulder pain. This is a list of recommended reading, though the list is not exhaustive. You are encouraged to research the literature frequently to remain up to date with current evidence, and ultimately use your clinical decision making skills to help you decide what is best evidence based practice.

Bess :: Patient care pathways and guidelines

Webpage | **Essential** | Here you will find the British Elbow and Shoulder Society published guidelines on shoulder pain. Click on specific conditions for more information.

Shoulder pain - NICE CKS

Webpage | **Essential** | This is an overview of shoulder conditions and NICE guidelines for assessment and management. You will find links and references to original research articles within.

Frozen shoulder contracture syndrome – Aetiology, diagnosis and management - in Manual Therapy, by Jeremy Lewis, 2015-02

Article | **Essential** | Within this module we will be searching and using literature to support our knowledge and to underpin our learning. Articles will be used in tutorial classes as discussion aids. Start to have a look at literature related to the topics each week

Rotator cuff related shoulder pain: Assessment, management and uncertainties - in Manual Therapy, by Jeremy Lewis, 2016-06

Article | **Recommended** | This paper describes a shoulder symptom modification procedure for assessing and managing shoulder pain. It is not essential to memorise but it is important to note that there are several classification and management systems available. A recent study has suggested that this system is not reliable, and therefore it is up to you to decide whether or not it will be clinically valuable to your practice.

Psychological factors are associated with the outcome of physiotherapy for people with shoulder pain: a multicentre longitudinal cohort study - in British Journal of Sports Medicine, by Rachel Chester; Christina Jerosch-Herold; Jeremy Lewis; Lee Shephstone, 2018-02

Article | **Recommended** | Read the abstract and discussion of this paper to get a feel for the psychosocial factors that can impact on shoulder pain.

Current concepts in the conservative management of the frozen shoulder - in Physical Therapy Reviews, by Rebecca Louise Foster; Marie-Luce O'Driscoll, 2010-10

Article | **Recommended** | As evidence based practitioners, you are expected to critically analyse the literature in order to inform your clinical practice. There is an abundance of research available, so it is up to you to use your research and clinical skills to decide what literature will inform your practice.

Combining orthopedic special tests to improve diagnosis of shoulder pathology - in Physical Therapy in Sport, by Eric J. Hegedus; Chad Cook; Jeremy Lewis; Alexis Wright; Jin-Young Park, 2015-05

Article | **Recommended** | You will begin to understand that shoulder "special" orthopaedic tests are only helpful under some circumstances. There are hundreds of special tests available, and you are not expected to learn all of them!

PE #021 Shoulder pain, rotator cuff tendinopathy and frozen shoulder with Dr Jeremy Lewis - physioedge

Audio document | **Background** | Podcast with Jeremy Lewis (>1 hour). This is a very interesting discussion about shoulder pain - feel free to listen in your own time.

Classification of Shoulder Pain - Physiopedia

Webpage | **Background** | This article describes some of the proposed classification systems for shoulder pain.

ShoulderDoc by Prof. Lennard Funk - Shoulder Symptoms, Treatment, Research & Education

Website | **Background** | This is a useful website that describes some common (and not so common) shoulder conditions.

NHS Lothian shoulder pathway

Webpage | **Recommended** | This is the shoulder pathway used by NHS Lothian physiotherapy services

Elbow (6 items)

Elbow pain: a guide to assessment and management in primary care - in British Journal of General Practice, by Mustafa Javed; Saadia Mustafa; Simon Boyle; Fiona Scott, 2015-11

Article | **Essential** | This is an overview of common elbow complaints seen in primary care. It is up to you to use your independent learning time to read up on the aetiology of specific conditions and physiotherapy management options.

Tennis elbow - NICE CKS

Webpage | **Essential** | These are NICE guidelines for the management of tennis elbow, or lateral epicondylalgia. You will often find reference to original articles and research papers within such guidelines. Tennis elbow will link to your learning of tendinopathies. Can you transfer this knowledge to golfers elbow?

Early mobilisation for elbow fractures in adults - in Cochrane Database of Systematic Reviews, by Paula Harding; Tshepo Rasekaba; Lorena Smirneos; Anne E Holland, 2011-06-15

Article | **Recommended** | This article is from the Cochrane research group. This will link

with what you will know and learn about fractures

Are Passive Physical Modalities Effective for the Management of Common Soft Tissue Injuries of the Elbow? - in The Clinical Journal of Pain, by Sarah Dion; Jessica J. Wong; Pierre Côté; Hainan Yu, 2017-01

Article | **Recommended** | This paper evaluates the effectiveness of passive treatments for soft tissue elbow pain. As evidence based practitioners, you will be expected to consult research to help inform your clinical practice.

► **Lateral Elbow Pain with Dr Leanne Bisset by MACP**

Audio document | **Background** | This is a podcast with Dr Leanne Bisset about lateral elbow pain (30 mins)

Cubital Tunnel Syndrome - Physiopedia

Webpage | **Background** | This is a referenced web page describing cubital tunnel syndrome at the elbow. You are not expected to learn every test and treatment. Rather, you should build on your knowledge of anatomy, physiology, assessment and other learning to start forming patterns of recognition. This will link with your learning about nerve pathologies.

Wrist and hand (3 items)

Distal Radial Fractures - Physiopedia

Webpage | **Essential** | This referenced web page gives a good overview of distal radius fractures, which you will probably encounter on clinical placement and in orthopaedic and outpatient practice.

Hand Disorders | The British Society for Surgery of the Hand

Webpage | **Recommended** | Hand physiotherapy is often a specialised area of therapy. However you may come across some conditions, such as distal radius fractures, carpal tunnel syndrome, and deQuervains syndrome, working in primary or secondary care. Have a look at the hand disorders and hand injuries sections of this website for an overview of patient information for a range of hand conditions.

Investigation of the effect of conservative interventions in thumb carpometacarpal osteoarthritis: systematic review and meta-analysis - in Disability and Rehabilitation, by Lucia Bertozzi; Kristin Valdes; Carla Vanti; Stefano Negrini; Paolo Pillastrini; Jorge Hugo Villafañe, 2015-10-23

Article | **Recommended** | This is a systematic review and meta analysis of conservative management of thumb arthritis. Try to evaluate the quality of this article. You can often find references to useful papers from systematic reviews.

Soft tissue injury (2 items)

There are numerous texts that will cover soft tissue injuries in comprehensive detail. It is up to you to decide what you want to read.

There is some revision reading located in week 4 Hub resources.

Acute soft tissue injury management: Past, present and future - in Physical Therapy in Sport, by Chris M. Bleakley, 2013-5[Article](#) | **Recommended****Week 5** (6 items)

In week 5 you will be introduced to principles of increasing accessory movements and joint mobilisations. Please find your directed reading below. The reading below will provide you with a basis for what will be covered within your tutorial and practical sessions. The readings marked **ESSENTIAL** - is required reading before your classes for that week to ensure participation and ability to follow the tutorial and practical classes. Readings marked **RECOMMENDED** will enhance the knowledge and competence you have gained from the essential readings and will ensure you are developing a good depth of knowledge in the topic area. Readings marked **BACKGROUND** are further information that will contribute further to your knowledge in this area and can be used as references for the future but are not necessarily essential to read in the current week. If you feel like reading more about certain topics then always feel free to explore the LRC's database

Peripheral joint mobilisations (6 items)

Musculoskeletal examination and assessment: a handbook for therapists, Volume 1, edited by Nicola J. Petty; Dionne Ryder, 2017

[Book](#) | **Essential** | This chapter describes accessory assessment of joints. In chapter 3: Read page 100 – 112 stopping before completion of the physical examination. Please ignore the trigger point charts and the section on movement diagrams - you will not be expected to know these.

Principles of musculoskeletal treatment and management: a handbook for therapists, edited by Nicola J. Petty; Kieran Barnard, 2018

[Book](#) | **Essential** | This chapter discussed principals of joint treatment. Read chapter 3: from page 51 - 67, ignoring movement diagrams. You will not be expected to do these.

Integrating osteopathic approaches based on biopsychosocial therapeutic mechanisms. Part 1: The mechanisms - in International Journal of Osteopathic Medicine, by Gary Fryer, 2017-5

[Article](#) | **Recommended** | Although presented as "osteopathic" approaches, this is an interesting exploration of many of the techniques physiotherapists may use.

Integrating osteopathic approaches based on biopsychosocial therapeutic mechanisms. Part 2: Clinical approach - in International Journal of Osteopathic Medicine, by Gary Fryer, 2017-5

[Article](#) | **Recommended** | Although presented as "osteopathic" approaches, this is an interesting exploration of many of the techniques physiotherapists may use.

Reconceptualising manual therapy skills in contemporary practice - in Musculoskeletal Science and Practice, by Martin Rabey; Toby Hall; Clair Hebron; Thorvaldur Skuli Palsson; Steffan Wittrup Christensen; Niamh Moloney, 2017-06

[Article](#) | **Background** | A critical exploration of manual therapy in contemporary practice

Classification, definitions, and descriptions of the basic massage strokes and relaxed passive movements - in Beard's massage: principles and practice of soft tissue manipulation, by G. De Domenico, 2007

Chapter | **Essential** | Module: P2141 (Scanned Extract) Please read this document to appreciate underlying principles and basic massage techniques. Please continue to review this over Week 6 and 7 as well.

Week 7 (10 items)

In week 7 you will be introduced to assessment and treatment of the lumbar spine, including rehabilitation options. Please find your directed reading below. The reading below will provide you with a basis for what will be covered within your tutorial and practical sessions. The readings marked **ESSENTIAL** - is required reading before your classes for that week to ensure participation and ability to follow the tutorial and practical classes. Readings marked **RECOMMENDED** will enhance the knowledge and competence you have gained from the essential readings and will ensure you are developing a good depth of knowledge in the topic area. Readings marked **BACKGROUND** are further information that will contribute further to your knowledge in this area and can be used as references for the future but are not necessarily essential to read in the current week. If you feel like reading more about certain topics then always feel free to explore the LRC's database

Low back pain (10 items)

ACTIVITY - Lumbar Conditions (3 items)

Below are some resources. You may use other resources to complete this activity also. Look up the following spinal pathologies and take some notes on their aetiology, prevalence and presentation.

Intervertebral Disc Degeneration,

Spinal Stenosis,

Spondylolithesis,

Scoliosis,

Radiculopathy,

Herniated Disc,

Non-Specific Low Back Pain.

Back Pain: Lumbar Disc Injury, 22/9/2011

Audio-visual document | **Background**

Biomechanics of the spine: basic concepts, spinal disorders and treatments, edited by Fabio Galbusera; Hans-Joachim Wilke, 2018

[Book](#) | [Background](#)

Atlas of common pain syndromes, by Steven D. Waldman; Steven D. Waldman, 2019

[Book](#) | [Background](#)

Musculoskeletal examination and assessment: a handbook for therapists, Volume 1, edited by Nicola J. Petty; Dionne Ryder, 2017

[Book](#) | [Essential](#) | Read chapter 12: examination of the lumbar region, from page 327. You are not expected to learn combined movements or the McKenzie classification system, but feel free to read and absorb as much as you want. There will not be time to cover everything in your practical classes – remember that a lot of your learning will come from your practical placements.

Unraveling the Complexity of Low Back Pain - in Journal of Orthopaedic & Sports Physical Therapy, by Peter O'Sullivan; Joao Paulo Caneiro; Mary O'Keefe; Kieran O'Sullivan, 2016-11

[Article](#) | [Essential](#)

Low back pain and sciatica overview - NICE Pathways

[Webpage](#) | [Essential](#)

Medical Screening for Red Flags in the Diagnosis and Management of Musculoskeletal Spine Pain - in Pain Practice, by Phillip S. Sizer; Jean-Michel Brismée; Chad Cook, 2007-03

[Article](#) | [Recommended](#) | Red flags

Red flags to screen for malignancy and fracture in patients with low back pain: systematic review - in BMJ, by A. Downie; C. M. Williams; N. Henschke; M. J. Hancock; R. W. J. G. Ostelo; H. C. W. de Vet; P. Macaskill; L. Irwig; M. W. van Tulder; B. W. Koes; C. G. Maher, 2013-12-11

[Article](#) | [Recommended](#) | Red flags

Rehabilitation management of low back pain – it's time to pull it all together! - in Journal of Pain Research, by Yannick Tousignant-Laflamme; Marc Olivier Martel; Anand Joshi; Chad Cook, 2017-10

[Article](#) | [Recommended](#)

Mechanosensitivity of the Lower Extremity Nervous System During Straight-Leg Raise Neurodynamic Testing in Healthy Individuals - in Journal of Orthopaedic & Sports Physical Therapy, by Benjamin S. Boyd; Linda Wanek; Andrew T. Gray; Kimberly S. Topp, 2009-11

[Article](#) | [Essential](#) | Please read this after Practical Class 1 to enhance your understanding.

Week 6 Reading Week (6 items)

During this week, there are no contact classes but directed learning is scheduled. The directed learning aims to give you an awareness of a number of areas that may be used as an adjunct to rehabilitation: (1) superficial heat and cold, (2) ultrasound and (3) electrical currents for pain control (4) EMG (5) Diathermy. These techniques are not practiced and are not applied in this module. The outcome of this reading is to give you an awareness and overview knowledge of these areas. This is not sufficient learning to allow you to practice and apply these areas.

In addition to this directed learning, please use this week to review/consolidate your module learning to date.

1. Heat & Cold (2 items)

Physical agents in rehabilitation: an evidence-based approach to practice, by Michelle H. Cameron, 2018

Book | **Essential** | Cold : Read the following pages from Chapter 8 of the text: 127 - 132 , stopping before the heading "modification of spasticity". Read pages 133 (starting at contraindications and precautions for cryotherapy) to page 135 (stopping before the section on "Application Techniques". Read the section headed "Documentation" on page 141.

Physical agents in rehabilitation: an evidence-based approach to practice, by Michelle H. Cameron, 2018

Book | **Essential** | Heat: Read the following pages from Chapter 8 of the text: 146 (starting from the heading " Thermotherapy") to 149 (stopping before the section " Accelerated Healing". Read from page 149 (starting from section " Contraindications for the use of thermotherapy") to page 153 (stopping before the section "Application techniques". Read the section headed "Documentation" on page 162.

2. Ultrasound (1 items)

Physical agents in rehabilitation: an evidence-based approach to practice, by Michelle H. Cameron, 2018

Book | **Essential** | Read the following pages from Chapter 9 of the text: 172 - 179 (stopping before the heading "Bone Fractures " on page 179). Page 181 (starting from the section on "Contraindications and Precautions for Ultrasound") to page 184 (stopping before the section "Application Technique". Read the section headed "Documentation" on page 186.

3. Electrical Currents for Pain Control (1 items)

Physical agents in rehabilitation: an evidence-based approach to practice, by Michelle H. Cameron, 2018

Book | **Essential** | Read the following pages from Chapter 13: 258 - 262 (stopping before the heading "Application Technique"). Read the section headed "Documentation" on page 264.

4. Electromyographic (EMG) Biofeedback (1 items)

Physical agents in rehabilitation: an evidence-based approach to practice, edited by Michelle H. Cameron, 2018

Book | **Essential** | Read the following pages from Chapter 15: 289 - 303

5. Diathermy (1 items)

Physical agents in rehabilitation: an evidence-based approach to practice, edited by Michelle H. Cameron, 2018

Book | **Essential** | Read the following pages from Chapter 10: 200-211

Week 8 (7 items)

In week 8 we will continue to develop your knowledge on spinal assessment and management. Please find your directed reading below. The reading below will provide you with a basis for what will be covered within your tutorial and practical sessions. The readings marked **ESSENTIAL** - is required reading before your classes for that week to ensure participation and ability to follow the tutorial and practical classes. Readings marked **RECOMMENDED** will enhance the knowledge and competence you have gained from the essential readings and will ensure you are developing a good depth of knowledge in the topic area. Readings marked **BACKGROUND** are further information that will contribute further to your knowledge in this area and can be used as references for the future but are not necessarily essential to read in the current week. If you feel like reading more about certain topics then always feel free to explore the LRC's database.

Musculoskeletal examination and assessment: a handbook for therapists, Volume 1, edited by Nicola J. Petty; Dionne Ryder, 2017

Book | **Essential** | Read chapter 8: examination of the thoracic region, from page 231-248. You are not expected to learn passive physiological intervertebral movement, but feel free to read and absorb as much as you want. There will not be time to cover everything in your practical classes – remember that a lot of your learning will come from your practical placements.

NHS Lothian Low Back Pain Pathway

[Webpage](#) | **Essential** | Please read the pain pathway from NHS Lothian

Early Identification and Management of Psychological Risk Factors (“Yellow Flags”) in Patients With Low Back Pain: A Reappraisal - in Physical Therapy, by Michael K. Nicholas; Steven J. Linton; Paul J. Watson; Chris J. Main, 2011-05-01

[Article](#) | **Essential**

Goal setting practice in chronic low back pain. What is current practice and is it affected by beliefs and attitudes? - in Physiotherapy Theory and Practice, by Tania Gardner; Kathryn Refshauge; James McAuley; Markus Hübscher; Stephen Goodall; Lorraine Smith, 2018-10-03

[Article](#) | **Essential**

Patient led goal setting in chronic low back pain—What goals are important to the patient and are they aligned to what we measure? - in Patient Education and Counseling, by Tania Gardner; Kathryn Refshauge; James McAuley; Stephen Goodall; Markus Hübscher; Lorraine Smith, 2015-08

[Article](#) | **Recommended**

Examples of Outcome measures that can be included within Back Assessments. (2 items)

We have already looked at STarT Back previously. Here are some other examples. You will see a variety of different outcome measures used within different MSK settings, therefore it is good to become familiar with as many as possible as a student. These are just here for your information and to expand the resources you have as a student.

Roland-Morris Disability Questionnaire - Physiopedia

[Webpage](#) | **Background** | Take a look at the Roland-Morris questionnaire on the physiopedia website. Click on the link to open the questionnaire itself and reflect on the items that patients are asked to consider.

Oswestry Disability Index - Physiopedia

[Webpage](#) | **Background** | Take a look at the Oswestry questionnaire on the physiopedia website. Click on the link to open the questionnaire itself and reflect on the items that patients are asked to consider.

Week 9 (8 items)

In week 9 you will continue to develop your knowledge on the spine specifically looking at the cervical spine. Please find your directed reading below. The reading below will provide you with a basis for what will be covered within your tutorial and practical sessions. The readings marked **ESSENTIAL** - is required reading before your classes for that week to ensure participation and ability to follow the tutorial and practical classes. Readings marked **RECOMMENDED** will enhance the knowledge and competence you have gained from the essential readings and will ensure you are developing a good depth of knowledge in the topic area. Readings marked **BACKGROUND** are further information that will contribute further to your knowledge in this area and can be used as references for the

future but are not necessarily essential to read in the current week. If you feel like reading more about certain topics then always feel free to explore the LRC's database.

Musculoskeletal examination and assessment: a handbook for therapists, Volume 1, edited by Nicola J. Petty; Dionne Ryder, 2017

Book | **Essential** | Read chapter 6 Examination of the upper cervical region - p168-188 and p192-196.

Neck pain - non-specific - NICE CKS

Webpage | **Essential** | If you click on the link and select: Diagnosis, and 'View full scenario' you will be able to view all relevant information. Do the same for: management, view full scenario Note: you do not need to read the detail of medicines for prescription nor do you need to read about management of Acute Torticollis (many patients with this condition find that it resolves within a few days and they do not present to physiotherapy for treatment).

Whiplash Associated Disorders - Physiopedia

Webpage | **Essential** | Please have a look at the Quebec Task Force Classification of whiplash associated disorders on this page

The efficacy of manual therapy and exercise for treating non-specific neck pain: A systematic review - in Journal of Back and Musculoskeletal Rehabilitation, by Benjamin Hidalgo; Toby Hall; Jean Bossert; Axel Dugeny; Barbara Cagnie; Laurent Pitance, 2017-11-06

Article | **Essential**

Pacing | Pain Self-Management | Pain Toolkit

Webpage | **Recommended** | This is an excellent resources for pain management. This link will bring you to a page on pacing. Please explore the relevant pacing resources including the pain cycle.

Trauma | Guidance and guidelines | NICE

Article | **Recommended** | Have a look at the Canadian C-spine rule on this page

Exercises for mechanical neck disorders: A Cochrane review update - in Manual Therapy, by A.R. Gross; J.P. Paquin; G. Dupont; S. Blanchette; P. Lalonde; T. Cristie; N. Graham; T.M. Kay; S.J. Burnie; G. Gelley; C.H. Goldsmith; M. Forget; P.L. Santaguida; A.J. Yee; G.G. Radisic; J.L. Hoving; G. Bronfort, 2016-08

Article | **Recommended**

Neurodynamic Assessment - Physiopedia

Webpage | **Background** | Although we encourage you not to use websites such as Physiopedia for a reference. This page has very useful videos showing you how to perform all the neurodynamic test that we did in class. Please make sure you know how to perform these.

Week 10 (23 items)

In week 10 you will develop your knowledge on the assessment and management of conditions of the hip. Please find your directed reading below. The reading below will provide you with a basis for what will be covered within your tutorial and practical sessions. The readings marked **ESSENTIAL** - is required reading before your classes for that week to ensure participation and ability to follow the tutorial and practical classes. Readings marked **RECOMMENDED** will enhance the knowledge and competence you have gained from the essential readings and will ensure you are developing a good depth of knowledge in the topic area. Readings marked **BACKGROUND** are further information that will contribute further to your knowledge in this area and can be used as references for the future but are not necessarily essential to read in the current week. If you feel like reading more about certain topics then always feel free to explore the LRC's database.

Conditions of the hip (12 items)

This material aims to help you better understand the pathology, signs and symptoms of a range of conditions that are seen at the hip

Hip osteoarthritis - in BMJ, by Nick Aresti; Jamila Kassam; Nick Nicholas; Pramod Achan, 2016-07-06

[Article](#) | [Background](#) | Link also contains podcasts on hip arthritis from the BMJ

Greater Trochanteric Pain Syndrome: A Review of Anatomy, Diagnosis and Treatment - in Anesthesia & Analgesia, by Bryan S. Williams; Steven P. Cohen, 2009-05

[Article](#)

Review: Femoroacetabular Impingement - in Arthritis & Rheumatology, by Stephanie Pun; Deepak Kumar; Nancy E. Lane, 2015-01

[Article](#)

A comprehensive review of hip labral tears - in Current Reviews in Musculoskeletal Medicine, by Megan M. Groh; Joseph Herrera, 2009-6

[Article](#) | [Background](#)

Developmental dysplasia of the hip - in BMJ, by M D Sewell; K Rosendahl; D M Eastwood, 2009-11-24

[Article](#) | [Background](#)

Management of hip fracture in older people, by SIGN

[Document](#) | [Background](#)

Diagnosis and management of femoroacetabular impingement - in British Journal of General Practice, by Geraint ER Thomas; Antony JR Palmer; Antonio J Andrade; Thomas CB Pollard; Camdon Fary; Parminder J Singh; John O'Donnell; Sion Glyn-Jones, 2013-07

[Article](#)

Osteoporosis - Illnesses & conditions | NHS inform

[Webpage](#) | **Essential** | Read the introductory page on osteoporosis with associated links on this NHS Inform web-site

The Warwick Agreement on femoroacetabular impingement syndrome (FAI syndrome): an international consensus statement - in British Journal of Sports Medicine, by D R Griffin; E J Dickenson; J O'Donnell; R Agricola; T Awan; M Beck; J C Clohisy; H P Dijkstra; E Falvey; M Gimpel; R S Hinman; P Hölmich; A Kassarian; H D Martin; R Martin; R C Mather; M J Philippon; M P Reiman; A Takla; K Thorborg; S Walker; A Weir; K L Bennell, 2016-10

[Article](#) | **Background**

Perthes' disease - in BMJ, by P. Kannu; A. Howard, 2014-09-23

[Article](#) | **Background**

Hip Osteoarthritis: A Primer - in The Permanente Journal, by Michelle Lespasio, 2018

[Article](#) | **Background**

The epidemiology and impact of pain in osteoarthritis - in Osteoarthritis and Cartilage, by T. Neogi, 2013-09

[Article](#) | **Recommended**

Examination of the hip (1 items)

Neuromusculoskeletal examination and assessment: a handbook for therapists, by Nicola J. Petty, 2011

[Book](#) | **Essential** | Read chapter 10 on examination of the hip region

Management of hip conditions (9 items)

FFFAP/Physiotherapy Hip Fracture Sprint Audit Map

[Webpage](#) | **Essential**

Physiotherapy management of knee and hip osteoarthritis: a survey of patien... - in New Zealand Journal of Physiotherapy, 2014

[Article](#) | **Recommended**

What does best practice care for musculoskeletal pain look like? Eleven consistent recommendations from high-quality clinical practice guidelines: systematic review - in British Journal of Sports Medicine, by Ivan Lin; Louise Wiles; Rob Waller; Roger Goucke; Yusuf Nagree; Michael Gibberd; Leon Straker; Chris G Maher; Peter P B O'Sullivan, 2019-03-02

[Article](#) | **Recommended**

Physiotherapy management of hip osteoarthritis - in Journal of Physiotherapy, by Kim Bennell, 2013-09

[Article](#) | **Recommended**

Behavioural graded activity results in better exercise adherence and more physical activity

than usual care in people with osteoarthritis: a cluster-randomised trial - in Journal of Physiotherapy, by Martijn F. Pisters; Cindy Veenhof; Dinny H. de Bakker; François G. Schellevis; Joost Dekker, 2010

[Article](#) | [Background](#)

A review of behaviour change theories and techniques used in group based self-management programmes for chronic low back pain and arthritis - in Manual Therapy, by Alison Keogh; Mark A. Tully; James Matthews; Deirdre A. Hurley, 2015-12

[Article](#) | [Background](#)

Fracture Healing - in Apley and Solomon's concise system of orthopaedics and trauma, by Solomon, L.; Warwick, D.; Nayagam, S.; Solomon, L., 2014

[Chapter](#) | Module: P2141 (Scanned Extract) - Read pages 327-329

Physical Activity Interventions for Increasing Objectively Measured Physical Activity Levels in Patients With Chronic Musculoskeletal Pain: A Systematic Review - in Arthritis Care & Research, by Crystian B. Oliveira; Marcia R. Franco; Christopher G. Maher; Chung-Wei Christine Lin; Priscila K. Morelhão; Amanda C. Araújo; Ruben F. Negrão Filho; Rafael Z. Pinto, 2016-12

[Article](#) | [Recommended](#)

Effect of therapeutic exercise for hip osteoarthritis pain: Results of a meta-analysis - in Arthritis & Rheumatism, by Gabriela Hernández-Molina; Stephan Reichenbach; Bin Zhang; Michael Lavalley; David T. Felson, 2008-09-15

[Article](#) | [Background](#)

NICE CG161 Falls in older people: assessing risk and prevention

[Webpage](#) | [Essential](#) | Read as far as page 15 (stop at section 1.2)

Week 11 (24 items)

This week you will be introduced to the knee, build upon principles of rehabilitation and practice of neuromuscular co-ordination, power training and plyometrics, and principals and practice of late stage rehabilitation, functional exercises and return to work. Please find your directed reading below. The reading below will provide you with a basis for what will be covered within your tutorial and practical sessions. The readings marked **ESSENTIAL** - is required reading before your classes for that week to ensure participation and ability to follow the tutorial and practical classes. Readings marked **RECOMMENDED** will enhance the knowledge and competence you have gained from the essential readings and will ensure you are developing a good depth of knowledge in the topic area. Readings marked **BACKGROUND** are further information that will contribute further to your knowledge in this area and can be used as references for the future but are not necessarily essential to read in the current week. If you feel like reading more about certain topics then always feel free to explore the LRC's database.

Disorders of the knee (6 items)

The Knee Resource | Trustworthy Evidence Based Information

[Website](#) | [Essential](#) | This is a very good resource on knee conditions with supporting

evidence and rehabilitation ideas. Use this to start familiarising yourself around knee conditions.

Overuse Physeal Injuries in Youth Athletes - in Sports Health: A Multidisciplinary Approach, by Amanda Arnold; Charles A. Thigpen; Paul F. Beattie; Michael J. Kissenberth; Ellen Shanley, 2017-03

[Article](#) | [Background](#)

Patellar maltracking: an update on the diagnosis and treatment strategies - in Insights into Imaging, by Zaid Jibri; Paul Jamieson; Kawan S. Rakhra; Marcos L. Sampaio; Geoffrey Dervin, 2019-12

[Article](#)

Basic science of anterior cruciate ligament injury and repair - in Bone & Joint Research, by A. M. Kiapour; M. M. Murray, 2014-02

[Article](#) | [Recommended](#)

Injuries of the knee and leg - in Apley and Solomon's concise system of orthopaedics and trauma, by Solomon, L., Warwick, D., and Nayagam, S., 2014

[Chapter](#) | [Recommended](#) | Module: P2141 (Scanned Extract)

Patellofemoral pain syndrome - in Knee Surgery, Sports Traumatology, Arthroscopy, by Wolf Petersen; Andree Ellermann; Andreas Gösele-Koppenburg; Raymond Best; Ingo Volker Rembitzki; Gerd-Peter Brüggemann; Christian Liebau, 2014-10

[Article](#) | [Recommended](#) | Extremely useful paper outlining key factors in PFPS

Examination of the knee (5 items)

Musculoskeletal examination and assessment: a handbook for therapists, Volume 1, edited by Nicola J. Petty; Dionne Ryder, 2017

[Book](#) | [Essential](#) | Read chapter 15 "Examination of the knee region" from page 389

Proprioception in musculoskeletal rehabilitation. Part 1: Basic science and principles of assessment and clinical interventions - in Manual Therapy, by Ulrik Røijezon; Nicholas C. Clark; Julia Treleaven, 2015-06

[Article](#) | [Essential](#)

Diagnostic validity of physical examination tests for common knee disorders: An overview of systematic reviews and meta-analysis - in Physical Therapy in Sport, by Simon Décary; Philippe Ouellet; Pascal-André Vendittoli; Jean-Sébastien Roy; François Desmeules, 2017-01

[Article](#) | [Recommended](#)

Visual assessment of movement quality in the single leg squat test: a review and meta-analysis of inter-rater and intrarater reliability - in BMJ Open Sport & Exercise Medicine, by John Ressman; Wilhelmus Johannes Andreas Grooten; Eva Rasmussen Barr, 2019-06

[Article](#) | [Background](#)

A practical approach to musculoskeletal medicine: assessment, diagnosis, treatment, by

Elaine Atkins; Jill Kerr; Emily Goodlad; Elaine Atkins; Monica Kesson, 2016

Book | **Recommended** | This is a useful book for additional information on the assessment and management of MSK conditions.

Management of knee conditions (13 items)

Proprioception in musculoskeletal rehabilitation. Part 2: Clinical assessment and intervention - in Manual Therapy, by Nicholas C. Clark; Ulrik Røijezon; Julia Treleaven, 2015-06

Article | **Essential**

(vii) The role of physiotherapy in rehabilitation of soft tissue injuries of the knee - in Orthopaedics and Trauma, by Nicholas C. Clark, 2015-02

Article | **Recommended** | Knee

ACL Return to Sport Guidelines and Criteria - in Current Reviews in Musculoskeletal Medicine, by George J. Davies; Eric McCarty; Matthew Provencher; Robert C. Manske, 2017-9

Article | **Recommended**

Evidence-based clinical practice update: practice guidelines for anterior cruciate ligament rehabilitation based on a systematic review and multidisciplinary consensus - in British Journal of Sports Medicine, by Nicky van Melick; Robert E H van Cingel; Frans Brooijmans; Camille Neeter; Tony van Tienen; Wim Hullegie; Maria W G Nijhuis-van der Sanden, 2016-12

Article | **Recommended**

Rethinking patellofemoral pain: Prevention, management and long-term consequences - in Best Practice & Research Clinical Rheumatology, by Kay M. Crossley; Marienke van Middelkoop; Christian J. Barton; Adam G. Culvenor, 2019-02

Article | **Recommended**

Patellofemoral pain - in British Journal of Sports Medicine, by Kay M Crossley; Michael J Callaghan; Robbart van Linschoten, 2016-02

Article | **Recommended**

Muscle Injuries: A Brief Guide to Classification and Management - in Translational Medicine @ UniSa, 2015

Article | **Recommended**

What Works for IT Band Syndrome? What Doesn't? Why?

Webpage | **Recommended** | Although I would generally caution about using blogs (and this is no different really), this one is at least supported by use of the literature

Quite a Stretch: Stretching Hype Debunked

Webpage | **Recommended** | Interesting blog on stretching. It is well supported with evidence - if you want to cite the evidence you should go to the paper rather than cite the blog

DEFORMATION RESPONSE OF THE ILIOTIBIAL BAND-TENSOR FASCIA LATA COMPLEX TO

CLINICAL-GRADE LONGITUDINAL TENSION LOADING IN-VITRO - in International Journal of Sports Physical Therapy, 2017

[Article](#) | [Background](#)

Iliotibial band syndrome: an examination of the evidence behind a number of treatment options - in Scandinavian Journal of Medicine & Science in Sports, by E. C. Falvey; R. A. Clark; A. Franklyn-Miller; A. L. Bryant; C. Briggs; P. R. McCrory, 2010-08

[Article](#) | [Recommended](#)

Plyometric Training | Science for Sport

[Webpage](#) | [Recommended](#)

CURRENT CONCEPTS OF PLYOMETRIC EXERCISE - in International Journal of Sports Physical Therapy, 2015

[Article](#) | [Recommended](#) | Really useful article on the basics of plyometric training

Clinical Reasoning Reflection Form 1 - in Maitland's vertebral manipulation: management of neuromusculoskeletal disorders :volume 1, edited by Elly Hengeveld; Kevin Banks; Matthew Newton, 2014

[Chapter](#) | P2141: scanned extract

Therapeutic exercise: foundations and techniques, by Carolyn Kisner; Lynn Allen Colby; John Borstad, 2018

[Book](#) | [Essential](#) | Contraindications and Precautions when applying resistance to muscle

Read pages 194 (general precautions), page 206/207 (contraindications) and page 218 (special considerations for children and older adults)

Week 12 (7 items)

Arthropathies (5 items)

Rheumatology: evidence-based practice for physiotherapists and occupational therapists, by Krysia Dziedzic; Alison Hammond, ©2010

[Book](#) | [Essential](#) | Please read Chapter 16 - Inflammatory Arthritis, 17 - Osteoarthritis and 19 - Ankylosing Spondylitis. This chapter can be reviewed again and we are not expecting you to have learnt all the information within each chapter. The chapters should give you a good overview of the conditions and some of the common management. Read this before Practical Class 1.

Rheumatoid arthritis in adults: management | Guidance and guidelines | NICE

[Document](#) | [Recommended](#) | It is important to be aware of the NICE guidelines that exist within clinical practice.

NICE: Rheumatoid arthritis in over 16s: Quality Statement 4 " Education and Self-Management"

[Webpage](#) | [Recommended](#) | It is important to be aware of the NICE guidelines that exist within clinical practice.

Spondyloarthritis in over 16s: diagnosis and management | Guidance and guidelines | NICE

Article | **Recommended** | It is important to be aware of the NICE guidelines that exist within clinical practice.

Exercise | National Ankylosing Spondylitis Society

Webpage | **Background** | This may be useful for Practical Class 2 as a resource.

Hip and Knee Arthroplasty (2 items)**NHS Inform Web-site : Animated video on Hip Arthroplasty surgery**

Audio-visual document | **Background** | In the Practical class 1 we will be discussing hip arthroplasty. You may view the animated video of hip arthroplasty surgery.

NHS Inform Web-site : Animated video on Knee Arthroplasty surgery

Audio-visual document | **Background** | In Practical Class 1 we will be discussing knee arthroplasty. You may view the animated video of hip arthroplasty surgery.

Week 13 (3 items)**Return to work (3 items)**

“Whenever I can I push myself to go to work”: a qualitative study of experiences of sickness presenteeism among workers with rheumatoid arthritis - in Disability and Rehabilitation, by Paula Holland; Alison M. Collins, 2018-02-13

Article | **Essential** | This paper gives a good insight into the work experiences of people with rheumatoid arthritis. It is a useful resource to give physiotherapists a better understanding of how to facilitate return to work or remaining in work for this patient population.

Systematic Review of Prognostic Factors for Return to Work in Workers with ... - in Journal of Occupational Rehabilitation, 2017

Article | **Recommended** | This systematic review discusses the evidence on factors that predict duration of sick leave in workers after 6 weeks low back pain (LBP) related sick leave

Factors affecting return to work after injury or illness: best evidence synthesis of systematic reviews - in Chiropractic & Manual Therapies, by Carol Cancelliere; James Donovan; Mette Jensen Stochkendahl; Melissa Biscardi; Carlo Ammendolia; Corrie Myburgh; J. David Cassidy, 2016-12

Article | **Background**
