

# **Osteopathic Manual Practice in Management and Treatment of the Musculoskeletal Conditions - Lower Body**

## **About OMPIA**

**Contact: Paolo Tresoldi, [ompiacademy@gmail.com](mailto:ompiacademy@gmail.com), 650-695-9761**

Osteopathy is an established globally-recognized system of healthcare that relies on manual contact for diagnosis and treatment. It respects the relationship of body, mind and spirit in health and disease; it lays emphasis on the structural and functional integrity of the body and the body's intrinsic tendency for self-healing. Osteopathy (D.O) and Osteopathic Manual Practice (OMP) share the same philosophy and principles, but they are quite different concerning the training received and clinical application. As the name indicates, osteopathic physicians are medical doctors almost exclusively trained in the US. They learn to prescribe drugs, perform surgery, deliver babies, and have the prerequisites to specialize in other branches of medicine. Osteopathic Manual Practitioners (or European Style Osteopaths) are not MDs - they are not trained in allopathic medicine but purely osteopathic manual treatment. In the United States, medical students learn osteopathic manipulative techniques during the first two years of their medical school, and clinical application often diminishes in residency and beyond. In Europe, students go through full-time osteopathic hands-on training for four to five years, and it is central to their practice.

**The Osteopathic Manual Practice International Academy** aims to train healthcare professionals in the theoretical knowledge and practical skills underlying European-style osteopathy. The principles of osteopathy are universal - seeing the body as a whole unit, promoting homeostasis and self-healing, improving somatic structure and function with osteopathic manipulation, to name a few. These philosophies can be applied to and integrated with other healthcare professions to enhance clinical reasoning, skills and application. OMPIA offers classes in traditional European osteopathic manual practice for visceral, structural, fascial, and cranial techniques, as well as trainings in osteopathic treatments for specific clinical diseases and specialities.

# About the Course

## Course Description and Learning Outcomes

Traditional European Osteopathy consists of four pillars interlinked to each other: Structural, Visceral, Fascial, and Cranial Osteopathy. The aim of this course is to give healthcare professionals the knowledge and tools to understand a form of Structural Osteopathy called Osteopathic Manual Techniques with Articulatory Techniques and Soft Tissue Techniques..

Articulatory Techniques (ATs) is a low to moderate amplitude and low velocity osteopathic technique where the joint is carried through its full range of motion using repetitive concentric movements by the practitioner. The goal of these techniques is to use a passive, direct force to release biomechanic restrictive barriers of a joint and free all ranges of motion. By using ATs to harmoniously emphasize the natural motion of the target area, the practitioner can restore physiological freedom without putting stress on the surrounding structures. By reducing nociceptive signals, activating the parasympathetic nervous system, and promoting mechanotransduction processes, articulatory osteopathic manipulation can relieve somatic dysfunction and fascial tension to assist in tissue repair and recovery of the body and its biomechanics.

Soft Tissue Techniques (STTs) involve deep pressure and/or stretching movements across or along the length of the myofascial and connective fibres to reduce muscle stiffness and tenderness, improve muscle elasticity, to drainage trap in the soft tissue that cause pain and inflammation. Osteopath Manual Practitioners can choose from a variety of STTs depending on the tissue they are working on as well as the outcome they expect. Some of these techniques include effleurage, petrissage, frictions, acupressure and lymphatic drainage.

The course is both evidence-based and evidence-informed and will allow the attendants to develop practical and clinical skills underlying the integrative and multidisciplinary approach of osteopathy - to learn when and how to use them for the benefit of their patients.

## Course Details

The course is structured into two modules (Lower Body – Upper Body) - each will be taught over the course of two days: Saturday, and Sunday from 9:00 am to 6:00 pm. Participants will be evaluated based on observation in laboratory, class participation, and oral examination. The modules are structured to first guide participants through a sound review of functional anatomy, to develop a personalized assessment routine, to safely practice a meaningful set of soft tissue and articulatory techniques, and to apply integrative osteopathic clinical reasoning to various cases. Each module will focus on a set of specific body areas, in order to provide participants with a safe regional osteopathic manual structural approach fully applicable in their everyday practice.

## **Course Structure**

### Instructional Strategies

Instructional strategies will be student centered to improve their theoretical knowledge and practical skills through an active learning approach. Active learning strategies such PBL (Project Based Learning) and TBL (Team Based Learning) will be integrated with lectures and practical sessions in order to promote an effective adult learning environment. The student to faculty ratio will be 16:1, with an aim of 32 total participants for 2 faculty members. Each faculty member has eight or more years of osteopathic clinical and teaching experience.

### Anatomy Lecture and Lab

The regional anatomy will be reviewed first through lecture and then with an anatomical palpation workshop in which the students will be guided in an active palpatory routine to identify and define the main anatomical structures.

Students follow lectures with a lab where active and passive tests to assess the specific body region will be shown by the main instructor and practiced by participants. Tutors will support participants during practice highlighting possible improvement of execution and encouraging participants to develop a personal functional evaluation routine.

### Treatment approaches

The proposed osteopathic manual structural approach will include Soft Tissue Techniques and direct Articular Techniques. Each technical approach will be explored in its principles, underlying physiological mechanism, its indications and contraindications. The practical workshops will require participants to practice on each other under tutor supervision.

### Clinical Reasoning

In each module, time will be dedicated to develop a coherent and pertinent clinical reasoning in order to foster an efficient and therapeutic application of the newly acquired knowledge and skill. This will be put in action through the application of CBL (Case Based Learning) strategies with clinical cases designed to promote clinical reasoning on possible dysfunctions and conditions of the specific anatomical area. Specific attention will be put in illustrating possible correlation and influences on and from other body areas, both musculoskeletal and not, introducing participants to osteopathic manual practice integrative clinical reasoning.

## Course Instructors

**Paolo Tresoldi, DO (It), PgCert Edu** - is an European Osteopathic Manual Practitioner, born and raised in Milan, Italy; he obtained his Diploma of Osteopathy released by the Istituto Superiore di Osteopatia in 2006 and has held an active private practice since. In 2015, he received his Postgraduate Certificate in Academic and Clinical Education released by the British School of Osteopathy in London, UK and has taught and supervised osteopathic courses all over the world. In 2018, he moved to Silicon Valley, where he continues his private practice, and teaches as an Adjunct Professor at Touro University College of Osteopathic Medicine in the Department of Osteopathic Manipulative Medicine. He founded the Osteopathic Manual Practice International Academy (OMPIA) in 2020 where he brings teachers from all over the world to share osteopathic manipulative treatment techniques with healthcare professionals of the United States.

**Andrea Orlandi, B.Sc (Ost)** - is a European Osteopathic Manual Practitioner from Italy. He earned a Bachelor of Science in Osteopathy from the Prifysgol CYMRU University of Wales and the Diploma in Osteopathy from the Istituto Superiore di Osteopatia in 2006. Since graduating he has pursued work in multidisciplinary clinics to give his patients a holistic evaluation and treatment approach. He earned a Master in Osteopathy in 2010 from the Bicocca University in Milan, Italy and continues his studies in chronic spinal musculoskeletal disorders, pain rehab and sport-related conditions. For more than a decade, he has taught osteopathic principles and practice in different osteopathic colleges. He has been a clinic college supervisor both at the International College of Osteopathic Medicine (ICOM) and the Accademia Italiana di Medicina Osteopatica (AIMO). He has been a professor at the Akademia Osteopatii in Poland. He is an associate and clinical assistant professor in the Osteopathic Manipulative Medicine (OMM) at Lake Erie College of Osteopathic Medicine in Erie, PA.

**Michelangelo Pavone, D.O. (It), PgCert Edu** - is a Senior Lecturer and Clinical Tutor at the Higher Institute of Osteopathy and Head of the MSc Advanced course of the Postgraduate Certificate in Advanced Osteopathic Practice in Sports. He obtained the title of Bachelor of Science in Osteopathy issued by the University of Wales at the Higher Institute of Osteopathy and since 2006 he has been a clinical tutor at the Center for Osteopathic Medicine combining clinical activity with teaching the course of Palpation and Functional Anatomy to students of the Higher Institute of Osteopathy. His passion for teaching lead him to attend the Postgraduate Certificate in Academic and Clinical Education in 2015 and the Postgraduate Certificate in Pain Management in Osteopathic Practice in 2018. The knowledge acquired and above all the experiential practice of ten years of clinical work allows him to provide a competent and complete approach to athletes.

# Osteopathic Manual Practice in Management and Treatment of the Musculoskeletal Conditions - Lower Body

## COURSE SCHEDULE

Paolo Tresoldi -8 hours  
Michelangelo Pavone - 4 hours  
Andrea Orlandi - 4 hours

### Day 1 – Ankle-Knee-Hip

8:30-9:00 am	Registration	
9:00-11:15 am	Lecture/P.Tresoldi	Introduction:Pain in Musculoskeletal Conditions Ankle and Foot Anatomy & Physiology review + Palpation, OMP Assessment and Functional Evaluation. OMP ATs Ankle (Tibio-Tarsal, Tarso-Calcaneus ) and Foot Supine-Prone position. STTs Foot, Calf, Anterior Leg Area.. Indications, Contraindications and Considerations Demonstration and Assisted Practice
11:15-11:30 am	Break	
11:30-12:45 pm	Lecture/M.Pavone	Knee Anatomy & Physiology review + Palpation, OMP Assessment and Functional Evaluation
12:45-1:45 pm	Lunch	
1:45-3:15 pm	Lecture/P.Tresoldi	OMP ATs Knee (Tibio-Femoral, Tibio-Fibula, Patella) Supine-Prone position. STTs Knee and Tigh Area.. Indications, Contraindications and Considerations. Demonstration and Assisted Practice
3:15-3:30 pm	Break	
3:30-6:00 pm	Lecture/A.Orlandi	Hip Anatomy & Physiology review + Palpation, OMPAssessment and Functional Evaluation OMP ATs Hip Supine-Prone-Lateral position. STTs Groin Area. Indications, Contraindications and Considerations. Demonstration and Assisted Practice Osteopathic Clinical Reasoning and Integrative Application of the OMP for the lower limb

## Day 2 – Pelvis-Lumbar Spine

9:00-11:00 am	Lecture/P.Tresoldi	Pelvic Anatomy & Physiology review + Palpation, OMP Assessment and Functional Evaluation OMP ATs Pelvic Supine position. Demonstration and Assisted Practice. Indications Contraindications and Considerations
11:00-11:15 am	Break	
11:15-1:00 pm	Lecture/M.Pavone	OMP ATs Pelvic Prone position. STTs Buttock Area. Indications Contraindications and Considerations. Demonstration and Assisted Practice.
1:00-2:00 pm	Lunch	
2:00-4:00 pm	Lecture/A.Orlandi	Lumbar Anatomy & Physiology review + Palpation, OMP Assessment and Osteopathic Evaluation. OMP ATs Lumbar in Supine-Prone-Lateral Recumbent-Seated position. STTs Lumbar Area. Demonstration and Assisted Practice. Indications Contraindications and Considerations
4:00-4:15 pm	Break	
4:15-6:00 pm	Lecture/P.Tresoldi	OMP Myofascial Treatment of Lower Body Structure: Demonstration and Assisted Practice. Indications Contraindications and Considerations Osteopathic Clinical Reasoning and Integrative Application of the OMP of the lower body.

## **Osteopathic Manual Practice International Academy** **techniques References**

1. Aatik Arsh et al 2020, Effectiveness of manual therapy to the cervical spine with and without manual therapy to the upper thoracic spine in the management of non-specific neck pain; a randomized controlled trial. J Pak Med Assoc
2. Airaksinen O, Brox J, Cedraschi C, 2006. European guidelines for management of chronic non specific low back pain. Eur Spine J 15: S192-300
3. Arab A, Abdollahi I, Joghataei M, 2009. Inter-and intra-examiner reliability of single and composites of selected motion palpation and pain provocation tests for sacroiliac joint. Manual Therapy 14:213-221
4. Benjamin Hidalgo et al. 2017. The efficacy of manual therapy and exercise for treating non-specific neck pain: A systematic review. J Back Musculoskelet Rehabil.
5. Borg-Stein J, Simons D, 2002. Myofascial Pain. Arch Phys Med Rehabil 2002;83 Suppl 1 :40-7.
6. Brennan G, Fritz J, Flynn J, 2006. Identifying subgroups of patients with acute/subacute nonspecific low back pain: results of a randomized clinical trial. Spine 31: 623-631
7. Cho J, Lee E, Lee S. 2019 Upper cervical and upper thoracic spine mobilization versus deep cervical flexors exercise in individuals with forward head posture: A randomized clinical trial investigating their effectiveness. J Back Musculoskelet Rehabil.32(4):595-602. doi: 10.3233/BMR-181228. PMID: 30584118.
8. Chou R, Fu R et al, 2009. Imaging strategies for low back pain: systematic review and meta-analysis. The Lancet, Volume 373, 463-472
9. Cohen S, Raja S, 2007. Pathogenesis, Diagnosis, and Treatment of Lumbar Zygapophysial (Facet) Joint Pain. Anesthesiology 106:591-614

11. Coppieeters M, Stappaerts K, Wouters, 2003. The immediate effects of cervical lateral glide treatment techniques in patients with the neurogenic cervicobrachial pain. Journal of Orthopedic and Sport Physical Therapy, Volume 33, 369-378
12. C Cumplido-Trasmonte et al 2021. Manual therapy in adults with tension-type headache: A systematic review. Neurologia (Engl Ed).
13. DeStefano L. Greeman's Principles of Manual Medicine 5<sup>th</sup>. Lippincott Williams and Wilkins 2016
14. Jacobo Rodríguez-Sanz et al. 2020. Does the Addition of Manual Therapy Approach to a Cervical Exercise Program Improve Clinical Outcomes for Patients with Chronic Neck Pain in Short- and Mid-Term? A Randomized Controlled Trial. Int J Environ Res Public Health
15. Eva Barrett et al. 2016. Is thoracic spine posture associated with shoulder pain, range of motion and function? A systematic review. Manual Therapy
16. Flynn T, Cleland J, Whitman J, 2008 .Users guide to the musculoskeletal examination: fundamentals for the evidence-based clinician. Loiusville: Evidence in Motion
17. Foster N, Delitto A, 2011. Embendding Psychosocial Perspective within clinical management of low back pain: Integration of psychosocially informed management principles into physical therapist practice-challenges and opportunities. Physical Therapy and Rehabilitation Journal, Volume 91, 790-803
18. Fritz J, Piva S, Childs J, 2005. Accuracy of clinical examination to predict radiographic instability of the lumbar spine, Eur Spine J 14: 743-750
19. Gyer G, Michael J, Calvert-Painter B, Spine and Joint Articulation For Manual Therapist. 2019 Hand Publishing Edinburgh
20. Hart L, Deyo R, Cherkin D, 1995. Physician office visits low back pain: frequency, clinical evaluation and treatment patterns from U.S national servey. Spine 20: 11-19
21. **Krouwel O, Hebron C, Willet E, 2010. An investigation into the potential hypoalgesic effects of different amplitudes of PA mobilizations on lumbar spine as measured by pressure pain thresholds. Manual Therapy, Volume 15, 7-12**



22. Linton S, Shaw W 2011. Impact of psychological factors in the experience pain. *Physical Therapy and Rehabilitation Journal*, Volume 91, 700-711
23. Louw A, Diener I et al, 2011. The effects neuroscience education on pain, disability, anxiety, stress in chronic musculoskeletal pain. *Archives of Physical Medicine and Rehabilitation*, Volume 92, 2041-2056
24. Louw A, Puentedura E et al, 2017. The clinical implementation of pain neuroscience education: a survey study. *Physiotherapy Theory and Practice*, 869-879
25. Louma K, Riihima H, Luukkonen R, 2000. Low Back Pain in relation to lumbar disc degeneration. *Spine* 4: 487-492
26. Lucado AM, Dale RB, Vincent J, Day JM. Do joint mobilizations assist in the recovery of lateral elbow tendinopathy? A systematic review and meta-analysis. *J Hand Ther.* 2019 Apr-Jun;32(2):262-276.e1. doi: 10.1016/j.jht.2018.01.010. Epub 2018 Apr 26. PMID: 29705077.
27. Magee DJ, Manske RC, *Orthopedic Physical Assessment. Seventh Edition 2021*, Elsevier Edition. ISBN 978-0-323-52299-1
28. Matthew J Page et al 2014. Manual therapy and exercise for adhesive capsulitis (frozen shoulder). *Cochrane Database Syst Rev*
29. McMahon S, Tracey I et al, 2013. *Wall and Melzack's textbook of pain*, Elsevier Sixth Edition, Philadelphia
- 30. Melzack R, 1999. Pain and stress: a new perspective by Psychosocial Factors in Pain. New York, The Gilford Press**
31. Noten S, Meeus M, Stassijns G, Van Glabbeek F, Verborgt O, Struyf F. Efficacy of Different Types of Mobilization Techniques in Patients With Primary Adhesive Capsulitis of the Shoulder: A Systematic Review. *Arch Phys Med Rehabil.* 2016 May;97(5):815-25. doi: 10.1016/j.apmr.2015.07.025. Epub 2015 Aug 15. PMID: 26284892.

32. **Pentelka L, Hebron C et al, 2012. The effects of increasing sets (within one treatment session) and different sets durations (between treatment sessions) of lumbar spine posteroanterior mobilization on pressure pain thresholds. Manual Therapy, Volume 17, 526-530**
33. Philipp Zunke et al. 2020. The effect of manual therapy to the thoracic spine on pain-free grip and sympathetic activity in patients with lateral epicondylalgia humeri. A randomized, sample sized planned, placebo-controlled, patient-blinded monocentric trial. BMC Musculoskelet Disorders
34. Seffinger M. Foundations of Osteopathic Medicine. Philosophy, Science, Clinical Applications and Research. 4<sup>th</sup> Edition. Lippincott Williams and Wilkins 2019
35. Mobilization As Part of a Comprehensive Program to Manage Carpal Tunnel Syndrome: A Systematic Review. J Manipulative Physiol Ther. 2020 May;43(4):356-370. doi: 10.1016/j.jmpt.2020.02.001. Epub 2020 Aug 26. PMID: 32861521.
36. Samini F, Mashadinejad H et al 2014. Comparison of Surgical and Medical Treatment for cervical spondylosis. Neurosurgery Quarterly, Volume 24, 18-21
37. Sluka K, Skiba D et al 2006 Joint mobilization reduces hyperalgesia associated with chronic muscles and joint inflammation in rats. The Journal of Pain, Volume 7, pag 602-607
38. Sterling M, Jull G, Wright A, 2001. Cervical Mobilization: concurrent effects on pain, sympathetic nervous system activity and motor activity. Manual Therapy, Volume 6, 72-81
39. Vlaeyen J, Crombez G, 1999. Fear and movement injury, avoidance and pain disability in chronic low back pain patients. Manual Therapy, Volume 4, 187-195
40. Weiner D, Perera T et al 2008. Efficacy of percutaneous electrical nerve stimulation and therapeutic exercise for older adults with chronic low back pain: a randomized controlled trials. Pain, Volume 140, 344-357