

AIFIMM Formazione S.r.l.

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Online Course

Systemic Musculoskeletal Biomechanics

a physics-based clinical model derived from the Mézières Method

A Systemic Biomechanical Model for Treating Complex Dysfunction

This course is based on a clinical model that interprets the human body as a complex, adaptive system — governed by mechanical laws, vectorial forces, and systemic interactions between joints, muscles, and connective tissues.

It draws on the foundational insights of Françoise Mézières, who first observed that muscular chains behave as a unified system, and that dysfunction often stems from **myofascial shortening** and adaptive compensations — not from the symptomatic area itself.

Rather than following fixed protocols or focusing on local symptoms, this model teaches you to assess **how muscular vectors alter joint geometry**, reorganize skeletal relationships, and generate dysfunction far from their source.

Scientific Foundations

This clinical framework is grounded in three core principles:

1. Muscle as a vector of force:

Every muscle exerts a directional force. When shortened, it generates compressive loads that deform joints along its axis.

2. Loss of physiological joint sequencing:

Muscular shortenings disrupt the natural alignment and sequencing of skeletal segments, leading to compensatory patterns.

3. The body as a complex system:

Local dysfunctions often reflect systemic adaptations. Pain is rarely where the cause resides — the system reorganizes to survive.

These principles are explored throughout the course, through live demonstrations, systemic assessment strategies, and practical applications of **isometric work in maximum elongation** — the core therapeutic mechanism of the Mézières Method.

© Clinical Strategy and Objectives

The course guides you in:

- Identifying dominant muscular vectors that generate joint misalignments and vertebral compressions
- Interpreting recurrent symptoms through a systemic, biomechanical lens
- Reorganizing dysfunctional patterns by reducing **Resistant Force (RF)** and restoring **Working Force (WF)**
- Applying isometric elongation techniques to restore skeletal spacing, functional balance, and adaptability

Who This Course Is For

This training is designed for healthcare professionals working in musculoskeletal rehabilitation:

- Physiotherapists / Physical Therapists (PTs)
- Osteopaths
- Physicians and rehabilitation specialists
- Chiropractors (where regulated)
- Manual and sports therapists

No prior knowledge of the Mézières Method is required — the course starts from foundational principles and builds toward advanced clinical reasoning.

Course Format and Access

- 38 hours of high-quality video lessons
- 18 modules with theoretical explanation, clinical demonstration, and systemic reasoning
- Language: English voiceover (dubbed from original Italian footage)
- 12-month unlimited access
- Certificate of Completion issued by AIFiMM (ECM Provider No. 1701 Italian Ministry of Health)

This program is designed to meet international CPD standards: it includes tracked progression, learning outcomes, clinical relevance, and formal certification. Suitable for inclusion in continuing professional development portfolios (subject to national regulations).

Course Program

A structured clinical training that integrates theoretical foundations, systemic assessment, and therapeutic application of the Mézières Method.

■ MODULE 1 — Scientific Foundations of Postural Reorganization

- Origins and principles of the Mézières Method
- Vector-based physics applied to the human body
- Muscular chains and compensatory patterns
- Complex systems and biomechanical asymmetries
- Functional anatomy of the spine: sinusoidal organization and segmental logic
- Definition of physiological posture through neuromyofascial balance

Learning Outcome:

Understand the systemic and biomechanical logic behind postural dysfunctions, and the theoretical framework that supports the Mézières approach.

■ MODULE 2 — Clinical Evaluation of Musculoskeletal Imbalances

- Postural evaluation in static and dynamic conditions: standing, seated, supine
- Visual and palpatory methods for identifying myofascial restrictions
- Assessment across sagittal, frontal, and transverse planes
- Torque, strain vectors, and antalgic reflex patterns
- Differential analysis to identify primary vs secondary dysfunctions
- Clinical reasoning based on vectorial interpretation

Learning Outcome:

Develop diagnostic skills to detect the origin of dysfunctions and distinguish between structural and functional causes.

■ MODULE 3 — Global Rebalancing Techniques (Supine and Seated)

- Supine protocols in the sagittal plane:
 - Skull, hyoid, cervical and lumbar lordosis
 - Thoracic kyphosis, scapular rhythms, pelvic alignment
- Decompression techniques with elevated legs
- Seated postures and adaptations
- Integration of diaphragmatic and therapeutic breathing

Learning Outcome:

Apply the main Mézières techniques to restore joint spacing, reduce compression, and reorganize the musculoskeletal system globally.

■ MODULE 4 — Regional Biomechanics and Targeted Interventions

- Cranio-vertebro-sacral axis and its influence on postural control
- Hyoid-scapular and scapulocostal coordination
- Analysis of upper limb vectors and glenohumeral joint mechanics
- Hip-knee-foot chain assessment and treatment
- Role of the temporomandibular joint (TMJ) in systemic dysfunctions

Learning Outcome:

Treat local dysfunctions through a systemic lens, using biomechanical logic to guide regional interventions.

■ MODULE 5 — Advanced Applications and Complex Adaptations

- Clinical management of:
 - Scoliosis and orthopedic spinal conditions
 - TMJ dysfunctions and craniofacial compensation
 - Sternoclavicular and scapular subluxations
- Manual techniques for deep tissue and myofascial integration
- Breathing as a regulatory and therapeutic tool

Learning Outcome:

Recognize and treat complex, multi-level adaptations using the full scope of the Mézières Method.

■ MODULE 6 — Clinical Integration and Individualized Planning

- Global evaluation with Mézières-based criteria
- Setting therapeutic priorities
- Sequencing of treatment objectives
- Full-body reorganization through personalized strategies

Learning Outcome:

Translate assessment into action by planning individualized treatments rooted in biomechanical logic and systemic adaptation.

© Core Skills Developed

- Clinical reasoning based on vectorial biomechanics
- Whole-body assessment and palpatory sensitivity
- Recognition of muscular patterns altering joint geometry
- Use of isometric elongation in therapeutic settings
- Management of postural, orthopedic, and functional conditions through systemic treatment

Educational Structure

Each module includes:

- Theoretical explanations with visual anatomical models
- Demonstrations of techniques on real patients
- Clinical reasoning applied to real dysfunctions
- Step-by-step progression from concept to application

All video lessons are asynchronous — you can study at your own pace, revisit content anytime, and integrate each concept gradually into your practice.

Detailed Video Modules Overview

Each video module includes theory, clinical demonstration, and visual aids, lasting approximately 2 hours in total (38 hours overall).

MODULE 1 - Introduction - Part 1

Topics Covered:

- Origins of the Mézières Method and its foundational principles
- Physics and vectorial analysis applied to posture
- Basic principles of musculo-fascial biomechanics
- Static and dynamic balance concepts
- Vertebral sinusoid and segmental organization
- Postural assessment: standing and supine evaluations
 - Includes live demonstration

MODULE 2 – Introduction – Part 2

Topics Covered:

- Linear and non-linear physics in human biomechanics
- Complex systemic behavior of muscular chains
- Causes of postural asymmetry

- Antalgic and compensatory reflexes
- Force couples in function and dysfunction
- Dynamic palpatory assessment in various positions

Q *Includes live demonstration*

MODULE 3 – Static Postural Assessment

Topics Covered:

• Frontal and rotational evaluations in standing, forward flexion, and supine positions

— Includes live demonstration

MODULE 4 – Goals & Tools of the Mézières Method

Topics Covered:

- Muscle force couples and their roles
- Definition of treatment goals
- Myofascial release techniques
- Therapeutic diaphragmatic breathing setup

☐ *Includes live demonstration*

MODULE 5 – Supine Posture – Sagittal Plane Corrections

Correction Targets:

- Skull, hyoid bone, and cervical-lumbar curves
- Thoracic kyphosis, scapulo–humeral, and pelvic alignment

MODULE 6 – Functional Differential Evaluation

Topics Covered:

- Muscular influences on spinal and scapular structures
- Assessment of rotational and lateral deviations
- Upper limb and pelvic vectorial analysis
 - Includes live demonstration

MODULE 7 – Supine Frontal Plane – Muscle–Skeletal Reactions

Topics Covered:

- Natural skeletal reactions in the frontal plane
- Passive mobilizations of thoracic and lumbar vertebrae
 - **■** *Includes live demonstration*

MODULE 8 – Corrective Maneuvers – Supine Frontal & Rotational Planes

Application to:

- Cranio-sacral axis, cervical, thoracic, lumbar sections
- Hyoid-scapular-spinal coordination
- Upper limbs and pelvic vector control
 - **☐** *Includes live demonstration*

MODULE 9 – Clinical Application of Corrections

Topics Covered:

- Selection of treatment strategies
- Myofascial and skeletal correction techniques
- Management of compensatory patterns
 - ☐ Includes simulation and live demonstration

MODULE 10 - Elevated Lower Limbs - Global Corrections

Focus Areas:

- Quadratus lumborum and leg elevation angles
- Whole-body alignment from elevated-leg positioning
 - **Q** *Includes live demonstration*

■ MODULE 11 – Hip & Knee Pathologies – Legs Elevated Work

Topics Covered:

- Vector analysis of the hip and knee
- Therapeutic approaches for related dysfunctions
 - ☐ Includes live demonstration

MODULE 12 - Seated Corrections & Foot Disorders

Topics Covered:

- Postural adjustments in seated position
- Tibio-tarsal and foot biomechanics
- Management of lower limb and foot pathologies
 - **Q** *Includes live demonstration*

MODULE 13 – Temporomandibular Joint (TMJ)

Topics Covered:

- Distinguishing primary vs. secondary muscular shortening
- Differential diagnosis of TMJ-related dysfunctions
- Role of craniofacial posture in systemic balance
 - Includes live demonstration

MODULE 14 – Dynamic Assessment

Topics Covered:

- Active and passive dynamic testing protocols
- Gait analysis with physiological and compensatory patterns
 - **■** *Includes live demonstration*

MODULE 15 - Treating Subluxations - Shoulder & Sternoclavicular

Focus Areas:

- Humeral head, sternoclavicular, scapular subluxations
- Recognition and treatment of regional dysfunctions
 - **■** *Includes live demonstration*

MODULE 16 – Clinical Reasoning

Topics Covered:

• Symptomatic vs causal intervention frameworks

- Local vs referred pain analysis
- Tools: dermatomes, innervation maps, static & dynamic tests
- From assessment to full treatment planning

Includes live demonstration

MODULE 17 – Scoliosis

Topics Covered:

- Classification and evaluation of scoliosis
- Therapeutic strategies for spinal asymmetries

□ *Includes live demonstration*

MODULE 18 – Case Studies & Final Insights

Topics Covered:

- Clinical evolution across treatment timeline
- Protocols for initial consultation
- Clinical photography as monitoring tool
- Review of key takeaways and consolidation

Q *Includes case discussions*

Summary

This video sequence ensures a logical progression from foundational theory to advanced clinical execution.

Each module blends scientific clarity with experiential insight, enabling:

- A comprehensive understanding of systemic biomechanics
- Step-by-step clinical reasoning applied in practice
- Integration of theoretical concepts into effective therapeutic action