

Wellco® Anatomy Foundations Cycle

Overview of Wellco® Anatomy Foundations Cycle:

The Wellco® Anatomy Foundations Cycle is the result of a collaboration between the international Anatomy of Movement® school and Studio Wellco.® in Barcelona. It is aimed at all people who, for professional or personal reasons, would like complete basic training in anatomy to add precision and safety to body-work for individual or group sessions. The Wellco® Anatomy Foundations Cycle brings together the six fundamental training workshops that remain at the centre of all training programmes developed by Blandine Calais-Germain and her international team of teacher-trainers over 40 years of research. This 170-hour course provides final certification and enables trainees to learn original exercises that can be used in classes and individual consultations. It also provides all participants with solid foundations in anatomy. All courses are 100% original and based on the successful, multi-sensory methodology developed by Blandine Calais-Germain (a Montessori School alumni) for the Anatomy of Movement® school.

The Spine

Overview

In this course, the spine is studied as the central location for the mobility and stability of the torso. Numerous exercises are demonstrated to safely care for the intervertebral discs. Furthermore, the specifics of each area of the spine are explained, in addition to the those of the vertebrae and joints that connect them.

The deep and superficial muscles are studied, clearly explaining their respective action on the spine through various practical exercises. The significant relationship between the spine and the nerve structures (spinal cord and nerves) is also observed so as to explain the importance of best practices in managing vertebral movement.

Course Programme

General information about the musculo-skeletal system:

- Practical workshop introducing various movements of the spine,
- Description of vertebral movements,
- Observation of the whole spine: curvature, regions, hinge areas, etc.

The vertebrae:

Composition.

Internal anatomical representation of the vertebrae.

Relationship between the spinal cord and the spine.

Intervertebral discs:

- Composition, pathologies and prevention principles,
- Specific exercises for intervertebral discs,
- The interapophyseal joints – pathologies and prevention principles.

Study of the spine, section by section, explaining the movement capacities of each section:

- Preparation of a table of observations for the movement capacities,
- Practical workshop to feel the range of different spinal movements.

Deep spinal muscles:

- Presentation,
- Summary of the specific role of the deep spinal muscles, ▪ Internal anatomical representation,
- Specific exercises on the deep spinal muscles.

Superficial spinal muscles:

- Presentation and action,
- Internal anatomical representation,
- Specific exercises to activate this muscular system,
- Practical exercises to differentiate between the deep and the superficial muscles
- Summary of the muscles of the spine.

CONTENT SPECIFIC TO ANATOMY FOR PILATES TRAINING

The spine is key to the Pilates technique.

What does it mean to stabilise the spine using information from studying anatomy?

How can this be achieved in a simple manner?

How can the mobility of the spine be facilitated in each area to protect the joints?

What are the implications of Pilates exercises that involve rotating, bending and extending the joints?

Anatomy of Breathing

Overview

This course is an introduction to the study of the main respiratory mechanisms. It explains the forces and movements involved in the act of breathing. Over thirty different ways of breathing are presented, in addition to information on how to apply the exercises based on the circumstances (important: this workshop is not about the physiology of breathing, but studies the movements that are performed during the act of breathing and the many possible variations). Special attention is paid to the diaphragm and appropriate exercises are practised.

Course Programme

General presentation

The respiratory system and its main functions.

Practice:

- Identification of the two fundamental respiratory movements, -
- The skeleton and joints involved in the act of breathing.

The rib cage

- Location, internal anatomical representation and movements of the ribs, - Practising the two types of rib movement,
- Exercises for activating the ribs in different situations,
- A reading of the body: various factors that block or facilitate the movements of the ribs.

Introduction to respiratory volumes. Identification of the forces involved

- Practice:

- The muscles responsible for the act of breathing:
- The diaphragm: anatomical location,
- Operation of the diaphragm in phase 1.

Exploration of the act of breathing in the diaphragm/abdomen

- Differences between them, study of the effects of each one.

Teaching details

- Internal anatomical representation of the diaphragm, - Exercises to stretch the diaphragm,
- Operation of the diaphragm in phase 2,
- Exercises to tone and relax the diaphragm.

Diaphragm and oesophagus.

- Solar plexus,
- Function of the diaphragm in the digestive process, the circulatory system, the process of giving birth and use of the voice and phonation.

Inspiratory muscles and the rib cage

Presentation and practice:

- Description of each muscle, experimenting with the type of movement it triggers,
- Exercises to contract and stretch some of these inspiratory muscles, - The expiratory muscles: abdominal and thoracic expiratory muscles, - Presentation,
- Practice of descending and receding rib-cage and abdominal exhalations,
- Practice of synchronisation between the different inspiratory and expiratory muscles,
- Resisted exhalation, the voice, expulsions and coughing.

This course complements and puts into practice "Anatomy of Breathing" by Blandine Calais-Germain.

CONTENT SPECIFIC TO ANATOMY FOR PILATES TRAINING

Breathing is key to Pilates; it is "the energy that moves the body". Each exercise is, above all, a breathing exercise. The way of organising breathing has very direct effects on the core, which can be very varied. The abdominals are also respiratory muscles. The secret of stability and articulation with fluency lies in breathing that colours the movement with the qualities sought in Pilates.

Concentration and control without tension are possible through the breathing because it acts as an interface/mediator between the mind (the intention) and the body in movement. Breathing is much more than an element that coordinates with movement. Breathing *is* movement: it is the first gestural movement, it is the starter and the facilitator that initiates and leads by the hand.

- How does the Pilates technique involve the act of breathing?
- Where does it start?
- Which movements are specific to the act of breathing in Pilates?
- Which muscles are involved?
- How can we teach it effectively?
- When should we modify it?
- Is it the same in all exercises?
- How can we organise the act of breathing to avoid excess thrust for the pelvic floor, the inguinal region or the abdominals?

The Lower Limbs

Overview

The hip, knee, ankle and foot are covered in relation to their main functions: stability, maintenance of the vertical position, walking motions and mobility. This course allows us to understand and experience how these functions are provided by the deep muscles, which extend the action of the ligaments, and the superficial muscles, which often cross over several joints

Course Programme

▪ Hip joint

- The exopelvic area of the pelvis,
- Bones and ligaments,
- Passive movements to observe and feel the ligaments of the hip.

▪ Knee joint

- Bones, meniscus and ligaments,
- Passive and active movements to observe and feel the ligaments of the knee,
- Summary of the mobility of the hip and knee,
- Internal anatomical representation of the two joints,
- Notions of osteoligamentous stability,
- Body exercises for the lower limbs, which are extended every day of the course.

▪ Deep hip muscles

- Psoas and pelvi-trochanteric muscles,

- Description,
- Action,
- Notion of "active ligament role".

Superficial hip and knee muscles

- Anterior Group: quadriceps,
- Action-specific role of the anterior rectum area,
- Practice,
- Posterior group: hamstrings,
- Specific role, stretching and practice,
- Internal group: adductors,
- Action and practice,
- External group: gluteus medius, deltoid and gluteus maximus,

Summary of the set of hip-knee muscles in the specific context of the standing position, and its use in the context of walking.

■ The foot

- Bone study based on the skeleton and drawings, - Ligaments of the foot: main joint areas,
- Palpation of the foot,
- Passive mobilisation of the main joints,
- Intrinsic muscles of the foot and use.

■ Ankle joint

- Bone and ligament study,
- Passive movements,
- Extrinsic muscles of the ankle/foot: anterior, external and posterior groups,
- Presentation: muscle action of the ankle/foot region.

General summary of the muscles of the lower extremities, with applications in the standing and walking position.

CONTENT SPECIFIC TO ANATOMY FOR PILATES TRAINING

During the course we will learn:

- How to distinguish between the use of the deep muscles during hip

extension or flexion in stability and dissociation exercises, - How to involve useful adductors in stability,

- What the pelvi-trochanteric muscles are and how we can feel them and involve them to facilitate the participation of the pelvic floor and the core,

- Which muscles we can use to stabilise the knee and prevent hyperextension,

- How we can build stability from below and use the lower limbs as supports in different ways,

- To observe lower limb alignment during exercises, as well as the relationship between the muscles of the lower limbs and the spine,

- About the relationship between the muscles of the lower limbs and the pelvic floor/core.

The Upper Limbs

Overview

In this course, the shoulder girdle, the shoulder, the elbow and the wrist are studied in relation to the thorax and the neck, as well as their joint function for the hand. We also touch upon the hand movement capacities. The practical exercises study groups of movements that use the upper limbs in different ways that usually appear in various body-work techniques.

Course Programme The scapular belt:

- Comparison with the pelvic girdle,
- Relationship with neighbouring structures and elements: thorax, neck

and upper limbs,

Shoulder blade and collarbone: drawing, morphological analysis and palpation,

- Joints of the shoulder girdle: mobility and practical exercises,
- Muscles of the scapula-thoracic joint: location and activation,
- Practical workshop: exercises that highlight the role of the scapular belt in the movements of the upper limbs.

Glenohumeral shoulder area:

- Skeleton and joints,
- Practical exercises on mobility,
- Deep muscles of the glenohumeral shoulder area: location, activation, stretching and strengthening,
- Superficial muscles of the glenohumeral shoulder area: location, activation and stretching.

Subacromial shoulder area and the various ways to organise movement that are effective in protecting it:

- Synchronisation of the deep and superficial muscles,
- Practical workshop: exercises that highlight the role of the glenohumeral shoulder area in the movements of the upper limbs, - Look at the most common glenohumeral shoulder pathologies, - Relationship with certain movement practices.

Introductory study of the hand: skeleton and joints:

- Exercises for mobility,
- Practical workshop: movements that highlight the role of the different joints of the hand in its movements,
- Relationship between said movements and the whole of the upper limbs.

Elbow and wrist area: skeleton and joints:

- Practical exercises for mobility,
- Mobility in flexion/extension and in pronation/supination, Musculature of the elbow: location, activation, stretching and strengthening,
- Practical workshop: exercises that highlight the role of the elbow and forearm in the movements of the upper limbs.

Continuation of the study of the hand:

- Concise study of the extrinsic muscles of the wrist and hand: flexors and extensors, Location and activation of each muscle,

Practical workshop: exercises that highlight the relationship between the thoracic shoulder area, the glenohumeral shoulder area and the hand in the movements of the upper limbs,

- Look at the most frequent pathologies of the upper limbs- Relationship with different movement techniques.

CONTENT SPECIFIC TO ANATOMY FOR PILATES TRAINING

What are the key muscles that make up the scapular belt, the second powerhouse, the "pelvis" of the upper limb?

Analysis of supports for hands: how to protect the joints.

Mobility of the shoulder and Pilates.

In-depth understanding of the functioning of the scapula in movement and stability, to prevent and improve injuries from over-use.

The Abdominal Muscles

Overview

This course is based on a detailed study of the structure and operation of the abdominal muscles and goes over the various situations in which they are used, sometimes sub-consciously, and the precautions that must be taken in certain circumstances where strengthening the abdominals may involve risks.

Course Programme

- Overall presentation of the course,
- Anatomy of the abdominal muscle group and detailed anatomy of the four individual abdominal muscles.

Skeletal function of the abdominals:

- The skeletal and articular structure of the torso,
- Use of the great mobilising and stabilising systems,
- Function of each of the abdominals in relation to the rib cage, the pelvis and the spine,
- Combination of some of these functions.

Visceral function of the abdominals:

- The two containers of the torso: the abdominal container and the thoracic container,

- Structure and content,
- Reciprocal relationships through the interaction of the serous layers.

Strengthening of the abdominals:

- In skeletal terms: with a low or high lever arm,
- In visceral terms: in descending mode and ascending mode, -
- Notion of muscle travel in strengthening.

Relaxation and stretching of the abdominals

Use of the abdominal muscles under certain specific

- circumstances:**
- Abdominals and the perineum,
 - Specific situations related to pelvic floor fragility,
 - Abdominals and hernias,
 - Abdominals, thinning and flat stomach,
 - Abdominals and the diaphragm,
 - Synergy/antagonism, contradiction of action,
 - Abdominals and phonation,
 - Abdominals and buttocks,
 - Perineal hyperpression and hypopression.

CONTENT SPECIFIC TO ANATOMY FOR PILATES TRAINING

How can you apply a detailed theoretical knowledge of the anatomy of the abdominal muscles to the practice and teaching of the Pilates technique?

How can you awaken the perception of each muscle in the context of a Pilates class, for a deeper understanding and a smoother execution of the different movements/exercises?

How can you organise classes to maintain not only the strength

but also the elasticity and length of these muscles to prevent core stiffness, respiratory blockage or excess intra-abdominal pressure?

When does intra-abdominal pressure occur?

What can be done to avoid it and which Pilates exercises generate low pressure?

What relationships exist between the diaphragm, the abdominals and the pelvic floor? What is the function of the transverse abdominis, the oblique muscles or the rectus abdominis in Pilates?

What is the relationship between the abdominals and the spinal muscles in stability and in the joint?

The Pelvic Floor

Overview

This course presents the pelvic floor area as the foundation and place of central support for the torso. The different muscles of the pelvic floor are observed and the role of each muscle is revealed.

Course Programme

The study brings the pelvic floor into play in synergy with:

- The balance of the pelvis on the legs,
- Breathing,
- The vertical torso position.

During this course, among other things, you will learn to: •
Recognise where the pelvic floor is,

- Locate the pelvic floor in the pelvis itself,
- Breathe in harmony with your pelvic floor,
- Tone the pelvic floor and foster in-depth relaxation, • Feel the pelvic floor as a central torso support.

Overview of situations that may pose a risk to the pelvic floor

CONTENT SPECIFIC TO ANATOMY FOR PILATES TRAINING

What are the different muscles that work together with the transverse muscles and the lumbo-pelvic girdle?

How can you differentiate between them and how can you wake them up?

How can you make them contribute to stability or articulation in a balanced way?

How can you organise the abdominal exercises so as not to damage the pelvic floor and how can you use the pelvic floor for a simpler and more efficient execution of the exercises?

In-depth and detailed knowledge of the muscles that form the pelvic floor and its specific function, relation and synergies with adjacent muscles (abdominal, pelvi-trochanteric, adductor and

hamstring) are studied for a new understanding and experience of the CORE. Multiple tools for communicating specific approaches to address the needs, capacities and learning methods of the student or patient.