INDEX:

Part 1(3 days): Theory manual therapy, Evidence Based Practice, clinical reasoning, Upper extremity

Curriculum of the different parts of the Plaatsman Concept of Manual Therapy courses.
The total study load is 340 Teaching units divided over 170 Hours of classes (16 days) and 170 Hours of self-study (subjects provided during classes)

***The student is aware of the fact that the courses of the Plaatsman Concept provide only a part of all the knowledge known to men today and is primarily meant to function as a good basis for further studies.**
***After each part the student must fulfill specific competences (see below).**

Theory:
Explanation of the Concept.
Arthrokinematics of joints:

- Accessory movements of joint surfaces.
- Neutral-, Elastic- and Plastic zone.
- Concave-Convex rule, Roll Glide dimensions.
- End feel of joints.

Functional pathology of joints and muscles. Mechanical dysfunctions and disorders:

- Sprain and Strain.
- Joint blockades.
- Trauma analysis.

Basic neurophysiology;

- Joint-, Muscle- and Tendon sensors according to Wyke.
- Propriocepsis.
- Inhibition of pain through movement, Gate Control Theory.
- Nocisensoric Somatomotoric Blocking effect (A. Brügger) and it's meaning in causal relation to mechanical disorders.
- Influence of the Ortho-sympathic nerve system, defense reflexes.
- Pain, radiating- and pseudo radiating pain, dermatomes, reflexes and Kenn muscles.

Subjective examination:

- Body chart and its interpretation.
- Anamneses and History.
- Interpretation of Subjective examination.
- Clinical groups of patients; acute, sub acute and chronic.

Planning of Objective examination.
Objective examination:

- Objective measurements.
- Differential diagnose between active and passive structures.
- Interpretation of objective examination.

Diagnosis forming, Strategy of treatment, clinical decision making process.
Theory of Manual therapeutic joint and capsule mobilization techniques, Indications and Contra indications. Theory of Mobilization With Movement according to Mulligan.

Upper extremity

- Anatomy:
  - Joint anatomy, muscles, capsule and ligaments.
- Functional Anatomy:
  - Analysis of movement, movement coordination.
- Arthro- and Osteokinematics:
  - Accessory movements and Roll / Glide dimensions .
  - Physiological- non-physiological movements.
- Kinesiology and functional Biomechanics.
- Trauma analysis most common Trauma's of the Shoulder girdle, Elbow, Hand and Wrist
- International Evidence Based Guidelines for Diagnosis and treatment of Extremities

Practice:
Anatomy in Vivo and palpation techniques of the Shoulder girdle, Elbow, Hand and Wrist, Subjective and Objective examination of upper extremity joints, examination of accessory movements of the Shoulder girdle, Elbow, Hand and Wrist. Manual mobilization of accessory movements in all physiological directions of the Shoulder girdle, Elbow, Hand and Wrist. Capsule and Muscle stretch techniques upper extremity. Roll- glide joint surface mobilization techniques in all physiologic directions of Shoulder girdle, Elbow, Hand and Wrist.
Examination sequence and interpretation of Tennis arm pathology according to Plaatsman.
Therapeutic exercise for peripheral joint stabilization.
Mobilization with movement (Mulligan) of upper extremity joints

Student competences after part 1:
The student is able to perform Subjective and Objective Assessment and Examination of the Shoulder girdle, Elbow, Hand and Wrist
The student is able to recognize the most common mechanical disorders and dysfunctions of the upper extremity
The student is able to analyze common traumas of the Shoulder girdle, Elbow, Hand and Wrist
The student is able to make an actual Manual Therapeutic working Diagnose and plan Management of patient problems using Short-term and Long-term goals.
The student is able to defend chosen Strategies against known Evidence Based theory.
The student is able to perform Manual Therapeutic Mobilizations, Roll Glide mobilizations, Stabilizing exercises and Capsule stretch techniques on the upper extremity
The student can interpret the results of chosen therapeutic techniques and plan further therapy.

The student is aware of all indications and contraindications for chosen manual therapeutic techniques.

Part 2 (3 days): Lower extremity and Neuromobilization

Lower extremity:

- Anatomy:
  - Joint anatomy, muscles, capsule and ligaments.
- Functional Anatomy:
  - Analysis of movement, movement coordination.
- Arthro- and Osteokinematics, Kinesiology and functional Biomechanics:
  - Accessory movements and Roll / Glide dimensions .
  - Physiological- non-physiological movements.
- Trauma analysis most common Trauma's of the lower extremity
- International Evidence Based Guidelines for Diagnosis and treatment of Extremities
- Anatomy, physiology and blood supply of the Peripheral Nerve system and Dura Mater.
- Gliding ability of nerves and Dura Mater.

Neuromobilization:

- Pathology of the peripheral nerve system and Dura Mater.
  - Compression, opening and closure dysfunction, adhesions..
  - Signs and symptoms, Pattern recognition.
  - Indications and Contra Indications of Neuro mobilizing techniques

Practice:

Anatomy in Vivo and palpation techniques of the Hip-joint, knee, ankle and foot.
Subjective and Objective examination of lower extremity joints, examination of accessory movements of Hip-joint, knee, ankle and foot
Manual mobilization of accessory movements in all physiological directions of Hip-joint, knee, ankle and foot. Capsule and Muscle stretch techniques lower extremity
Roll- glide joint surface mobilization techniques in all physiologic directions of lower extremity joints. Mobilization with movement (Mulligan) of lower extremity joints.
Neuro dynamic testing and Neuro mobilization techniques :

- ULTT 1 n. Medianus, ULTT 2 n. Radialis, ULTT 3 n. Ulnaris.
- LLTT 1 n. Tibialis, LLTT 2 n. Peroneus Communes (and n. Suralis), LLTT 3 n. Femoralis (and n. Obturatorius).
- Dura Mater Slump test.

Student competences after part 2:

The student is able to perform Subjective-, Objective Assessment and Examination of the Hip-joint, knee, ankle and foot. The student is able to recognize the most common mechanical disorders and dysfunctions of the lower extremity. The student is able to analyze common traumas of the lower extremities. The student is able to perform Manual Therapeutic Mobilizations, Roll Glide mobilizations, Stabilizing exercises and Capsule stretch techniques on the lower extremity. The student is able to recognize signs and symptoms, indications and contraindications for Neuromobilization techniques. The student is able to perform Neurodynamic testing and mobilization of the peripheral nerves and the Dura Mater. The student is aware of all indications and contraindications for chosen manual therapeutic techniques.

Part 3 (3 days): Myofascial Trigger Points, SI joint, Manipulation extremities

Myofascial Trigger Points:

- Theory of Myofascial Trigger points according to Travell and Simons. Signs and symptoms.
- Treatment strategy of Myofascial Trigger points.

Ilio Sacral joint:

- Anatomy:
  - Joint anatomy, capsule and ligaments.
- Functional Anatomy:
  - Analysis of movement, movement coordination.
- Arthro- and Osteokinematics, Kinesiology and functional Biomechanics:
  - Accessory movements, Roll and glide dimensions.
- Assessment Ilio Sacral Joint according to Lasslet, van der Wurff and Plaatsman

Manipulation:

Definition, explanation of effect, Scientific Evidence of Manipulation.

Influenced tissue:

- Joint surface.
- Capsule.

Indications and Contra indications Manipulation.

- Relative Contra indications.
- Absolute Contra indications for Manipulation, Red Flags.
- Risks and Benefits.

Different techniques of Manipulations:

- High Velocity Low Amplitude Thrust Manipulation, High Velocity Thrust Manipulation.
- Traction Manipulation, Traction Rotation Manipulation.
- Long and short lever techniques.
- GAP and rotational GAP manipulations.
- "Kantel"Manipulations (opposite Roll Glide technique).
- Mitnehmer and Gegenhalter techniques.
- Reposition Manipulation of (sub) luxation

Practice:

Locating and treating Myofascial Trigger points with Spray and Stretch (Travell and Simons)

- Head and Face, Neck and upper Back
- Arm and Hand
- Lower Back and Pelvis
- Leg and Foot

Anatomy in Vivo, palpation techniques and assessment Ilio Sacral joint according to Lasslet, van der Wurff and Plaatsman.

Manual mobilization of accessory movements in all physiological directions of the Ilio Sacral joint.

Manipulative treatment techniques of the Extremities:

Carpal joint:

- Reposition Manipulation of Capitatum in Flexion and Extension.

Elbow:

- Extension GAP, Lateral GAP. Proximal Humero Radial joint:
- Mills Manipulation of Tennis Elbow.

Shoulder girdle:

- Traction Manipulation Sub acromial Bursa.
- Reposition Manipulation of Acromio Clavicular joint anterior and posterior

Hip joint:

- Traction Manipulation.
- Capsule Manipulation.

Knee joint:

- Ligamentum Collaterale Mediale.
- Proximal Tibio Fibular joint.

Foot and Ankle:

- Traction Manipulation Talo Crural joint and Sub Talar joint.
- Eversion Repositioning Manipulation of Cuboid bone.

Student competences after part 3:

The student is able to recognize Signs and Symptoms of Myofascial Trigger points.
The student is able to find and Treat Myofascial Trigger Points with the Spray and Stretch method of Travell and Simons and with ischemic pressure.
The student is able to recognize Signs and Symptoms, asses and perform manual mobilizations on the Ilio Sacral joint.
The student is able to recognize indications and contraindications for manipulation on the Extremities. The student is able to perform all learned Manipulation techniques on the Extremities.

Part 4 (3 days): Spine, Temporo-mandibular joint, Manipulation of the Spine

Spine:
Incidence, prevalence spinal disorders, theory McKenzie
Anatomy:

- Joint anatomy, capsule and ligaments and Intervertebral disc.

Functional Anatomy:

- Analysis of movement, movement coordination.

Arthro- and Osteokinematics, Kinesiology and functional Biomechanics:

- Accessory movements, Roll and glide dimensions, Physiological motions.

Neurology:

- Innervation patterns of the Spine and Intervertebral disc.
- Dermatomes, Sclerotomes.
- Radiation of pain, pain patterns.
- Reflexes.

Pathology:

- Triage of Waddel, Red Flags, serious pathology.
- Joint Blockades.
- Degeneration/Arthrosis.
- Discopathy, Bulging disc, Protrusion, Prolapse, Chemical pain.
- Instability, Spondylolisthese.

Tempomandibular joint:
Incidence prevalence Cranio Mandibular dysfunctions (CMD)
Anatomy of the Jaw:

- Musculature
- Discus

Arthrokinematics:

- Physiological movements of the Jaw.
- Roll glide dimensions of the Tempomandibular joint.

Pathology of the Tempomandibular joint:

- Arthrosis
- Disc displacement
- Bruxism
- Myo fascial Trigger points
- Bad teeth

Practice:
Basic and 3D examination of the spine
Manual mobilizations of the spine. Treatment protocol according to McKenzie
Manipulative treatment techniques of the Thoracic Spine and Ribs

- Nelson Traction Manipulation Cervico-thoracic junction
- Mid thoracic Traction Manipulation, Thoracic Mitnehmer- and Gegenhalter Manipulation, "Pistol grip" and Dog thrust technique, Traction rotation techniques
- Thoracic-Lumbar junction Traction Mitnehmer technique.
- First rib Manipulation in different positions.
- Costal vertebral and Sterno-costal Junction Manipulations in different positions.

Manipulative treatment techniques of the Lumbar Spine:

- Segmental locking
- Rotational Facet Gap manipulation

Manipulative treatment techniques of Sacral Iliac joint:

- Ilium posterior- Nutation
    - Long and short lever lever techniques
    - Thigh thrust Manipulation, Sacral thrust techniques
    - Stoddart-Cybulka Manipulation technique Lumbar-Sacral junction.
- Ilium Anterior- Counter nutation:
    - Long and short Lever techniques
    - Ilium Thrust
    - Rotational GAP Thrust technique
    - Ilium-Sacral Thrust

Examination of the Temporo-mandibular joint:
Inspection of Teeth and Oral tissue.
Movement testing.

- Central Occlusion, Opening. Lateral movements.

Traction techniques of the Tempomandibular joint.
Stretch techniques of Tempomandibular musculature.
Mobilization techniques of the Tempomandibular joint. Lateral glide mobilization.
Roll Glide Mobilization in combination with lateral adjustment according to Plaatsman.
Exercise therapy for the Tempomandibular region.

Student competences after part 4:
The student is able to perform subjective and objective assessment and examination of the Ilio Sacral joint, Lumbar- and Thoracic Spine and the Temporo-mandibular joint.
The student is able to recognize the most common disorders of the Ilio Sacral joint, Lumbar- and Thoracic Spine inclusive Intervertebral Disc problems and CMD..
The student is able to perform Manual Mobilizations on Lumbar- and Thoracic Spine and the Temporo-mandibular joint.
The student is able to recognize indications and contra indications for manipulation on the Spine.
The student is able to perform all learned Manipulation techniques on the Spine and SI joint.
The student is able to perform assessment and examination of the Tempo mandibular joint.
The student is able to mobilize the Tempomandibular joint and give exercise therapy for CMD

Part 5 (4 days): Evidence based approach to head, Neck, Pelvic disorders and Lumbar instability. Diagnosis and treatment.

** This part can only be attended after completing the first 4 parts.

Head and neck pain are a big problem in modern society. 67% of all adults suffer from episodes of neck pain and 71% suffer from headache during their lives. Scientific studies show that Manual Therapy is useful in the management of Head and Neck pain. Low back and pelvic pain is a considerable problem in both pregnancy and postpartum and seems to be increasing. There have been several studies reporting the incidence as ranging between 14%-67% during pregnancy. Postpartum low back and pelvic pain has also been shown to cause considerable disabilities with activities of daily living (Hassan 2007). Up to 37% of women suffer from postpartum low back and pelvic pain (Östgaard 1992). But also men can suffer from Pelvis related disorders. For instance post-prostatectomy damage of the pelvic floor muscles. Many of these problems are due to Sacro-Iliac joint problems and instability of the Pelvis and Lower back. This four day Manual Therapy specializing course will address the possibilities of examination and treatment of Head, Neck pain, Pelvic disorders and lumbar instability

Theory:
Scientific evidence concerning Manual Therapy head and Neck, Pelvic disorders, Lumbar instability.
Neck, head and Cervico-thoracic junction:
Anatomy.

- Intervertebral disc, ligaments and facet joints.

Local- and global stabilizing muscles, Global movers.

- Function and dysfunction, treatment protocols.

Arthrokinematics.

- Three dimensional coupling of movements, Roll Glide dimensions.
- High Cervical spine C0-C2, Mid Cervical spine C3-C5
- Low Cervical spine and Cervico Thoracic Junction C6-Th4

Functional anatomy of the Cervical spine and Cervico Thoracic Junction.

- Physiological and non physiological movements.

Pathology of the Neck and Head region.

- Specific and non specific Neck pain.
- Cervical Discopathy.
- Thoracic outlet syndrome.
- Headaches, Cervicogenic headaches, Headaches caused by Myofascial Trigger points.
- Correlation between headaches and the Tempo-Mandibular joint.
- Tinnitus and disturbed vision in correlation with the Cervical spine.
- Whiplash Associated Disorders.

Evidence Based treatment

- Instability of the neck, Lumbar spine, and Pelvis

Diagnosis

- Correlation between posture and Head and Neck pain.
- Joint Blockades.

Pelvic girdle:

Anatomy:

- Pelvis and Ilio Sacral joint (SI).
    - Ligamentary structures, intervertebral disc and Symphysis Pubis
- Lower Lumbar spine (Lx).

Muscles, Function and Dysfunction.

- Local-and global stabilizers of the SI and Lx.
- Global movers of the SI and Lx.
- Pelvic floor muscles.

Arthrokinematics

Movements during load and rest, Roll and Glide dimensions.

- Pelvis and SI joint
- Lower Lumbar spine

Pathology:

Pelvic floor muscle insufficiency:

- Stress incontinence
- Sexual disturbances

Instability, pregnancy- and non pregnancy related:

- Recognition of and differential diagnosis of
    - Pelvic, SI, Lumbar instability, Symphysis
    - Gynecological pathology:
        - Prolapse of the Uterus
        - Overstretched Vagina wall
        - Post partum scar tissue.
        - Urological pathology:
        - Prostate (impotence)
        - Incontinence

Therapeutic opportunities and Clinical decision making process:

Theory of stabilizing exercises. Pelvic floor muscle training. Balance training. Posture training. Mobilization and Manipulation. Clinical prediction rules (Hassan 2007). International guidelines and Literature.

Communication in case of sexual disturbances. When to keep the patient and when to send her/him to a specialist.

Practice:

Neck and head:

Anatomy in vivo of the Neck and Head region.

- Palpation techniques, Anatomical Landmarks.

Examination of the Cervical spine and surrounding structures.

- Recognition of pathological patterns of Head and Neck pain, Red flags.
- Two and Three dimensional examination of the cervical spine and Cervico-thoracic junction.
- Instability testing of the cervical spine, muscular imbalance.
- Added tests for Radiculopathy and thoracic outlet syndrome.

Treatment techniques Neck pain.

- Two- and three dimensional mobilizations of the cervical spine and Cervico-thoracic junction.
- Influencing Discopathy and Radiculopathy using the idea's of McKenzie and the use of traction.
- Stability training according to Jull and Falla of the cervical spine.
- Endurance and coordination of the Deep Cervical Neck flexors with Bio feedback.
- Coordination exercises for the cervical spine.

Myofascial Trigger point treatment for the neck and head region.

Manipulation of the Cervical spine and Cervico Thoracic Junction.

- Indications and Contra indications for Cervical spine manipulations.
- Specific and non specific traction manipulations and Traction-rotation manipulation of :
- High Cervical spine C0-C2, Mid Cervical spine C3-C5
- Low Cervical spine and Cervico Thoracic Junction C6-Th4

Pelvic girdle:

Anatomy in Vivo, Palpation techniques and Landmarks

Subjective and objective examination:

Straight Leg Raise test modification according to Plaatsman.

Stability testing of Pelvis, SI joint and Lumbar spine. Chamberlain test, One leg test

Active Straight Leg Raise test (Mens 2002), Prone stability test

Mobilization and Manipulation of Lumbar spine, Symphysis and SI joint

Stabilization therapy for SI joint, Pelvis and lumbar spine (Core stability)

Pelvic floor muscle reeducation program:

- Coordination
- Endurance
- Relaxation
- Kegel exercises

Student competences after part 5:
The student is able to perform assessment and objective examination of the Cervical Spine and Cervico thoracic junction.
The student is able to recognize the most common disorders of the Cervical Spine inclusive Cervical disc problems, Cervicogenic headache, Dizziness, Tinnitus and Instability.
The student is able to perform Manual Mobilizations on the Cervical Spine and Cervico thoracic junction.
The student is able to recognize indications and contra indications for Manipulation on the Cervical Spine.
The student is able to perform all learned Manipulation techniques on the Cervical Spine.
The student is able to give a stabilizing exercise program for the Cervical Spine.
The student is able to diagnose different sources of Headache.
The student is able to treat Cervicogenic Headache, Tension type Headaches and Headaches arising from Myofascial Trigger points.
The student is able to recognize patients suffering from Pelvic disorders. Make Differential Diagnosis between Non specific Low back pain and dysfunctions of the Pelvic girdle.
The student is able to perform assessment and objective examination of the pelvis, Ilio Sacral joint and Lumbar Spine. The student is able to perform Mobilizations and Manipulations of the Pelvis, Ilio Sacral joint Symphysis and Lumbar Spine. The student is able to give the patient a stabilizing program for the Pelvis, SI joint and lumbar Spine.
The student is able to recognize Pelvic floor muscle weakness and dysfunction. The student is able to give a pelvic floor muscle exercise program.

***The student is aware of the fact that the courses of the Plaatsman Concept provide only a part of all the knowledge known to men today and is primarily meant to function as a good basis for further studies.**

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