Thieme

Consensus Conference 2021/2022: Physical and Rehabilitative Medicine – Diagnostic and Therapeutic Options

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ABSTRACT

The 2021/2022 consensus conference covered the entire field of physical and rehabilitative medicine. In this first part, the results of the consensus conference with regard to physical medicine are presented. Aspects of this area of the specialty are presented comprehensively.

This is the translation of the outcome of the 2021/2022 Physical and Rehabilitative Medicine Consensus Conference. For the complete text including figures, see: Egbert Seidel, Ulrich Smolenski, Annett Reißhauer, et al. Konsensus-Konferenz 2021/2022: Physikalische und Rehabilitative Medizin. 2021, Kiener-Verlag, 6. Auflage, München. Translated and reprinted with permission of the publisher Kiener-Verlag München.

Preface to the 6th edition

The importance of the medical specialty "Physical and Rehabilitative Medicine" in clinical medicine is steadily increasing. This is particularly evident in the current networked structures of the health care system. Examples are the complex figures with high structural requirements in acute hospitals for early rehabilitation, the clear specifications of the "G-BA" on quality criteria. Rehabilitative medicine is the focus of many specialties. The entire spectrum of clinical medicine is covered.

This development was taken into account when the scientific society and the professional association, in conjunction with the German Medical Association, worked on the new model of further training regulations, and the proven interdisciplinary nature of the field was emphasized.

This means that the specialist in "Physical and Rehabilitation Medicine" is responsible for patients with diseases of various organ systems or for the consequences of these diseases. This includes in particular functional disorders and functional diseases of the musculoskeletal system.

Notwithstanding the fact that the methods of physical therapy continue to be used in many areas in a specialist manner, also under rehabilitative aspects, the development of medicine shows that the variety of increasingly differentiated treatment methods of physical medicine, medical and occupational rehabilitation and the great socio-medical importance (including the International Classification of Functioning, Disability and Health [ICF]) of rehabilitation absolutely require specialist competence. Increasingly, the specialty is also responsible for the supply of assistive devices to patients.

The most important goal of our medical activities is the preservation or recovery of functional ability and quality of life. Often the success of curative medicine - frequently achieved at the price of functional deficits and with the risk of permanent disability or even the need for nursing care - only become ultimately meaningful for many patients through the early and consistent use of medical rehabilitation, and this also against the background of increasing importance of the care of geriatric patients. As established as the principles of physical and rehabilitative medicine are today in inpatient rehabilitation, the integration of outpatient medical rehabilitation into SHI-accredited care, including secondary and tertiary prevention, is just as important.

The 6th edition of the Consensus on Physical and Rehabilitative Medicine is also intended to give all those interested in the topics of physical medicine and medical rehabilitation the opportunity to inform themselves about the tasks as well as diagnostic and therapeutic possibilities of this medical specialty. A revision of the definitions

and terms of the specialty of physical and rehabilitative medicine is carried out every two years. This is made visible by the validity dates on the respective editions (2021/2022). Relevant changes are also to be expected on an ongoing basis because of planned legislative changes, e. g. blanket regulations. The Federal Participation Act and efforts to achieve inclusion also affect the field of activity of the Department of Physical and Rehabilitative Medicine.

Robotics, digitalization and telemedicine are current and increasingly future challenges for this specialty, which will open up further fields of therapy. Here in particular, rapid development is to be expected. The editors will take up this challenge once again.

Physical and rehabilitative medicine

Physical and rehabilitative medicine as a scientific medical speciality comprises the area-related diagnosis and treatment of physical impairments, structural and functional disorders with the methods of physical therapy and rehabilitative intervention in prevention, cure and rehabilitation, including early, post-acute and long-term rehabilitation. It also includes manual medicine, specialised pain- and pharmacotherapy, social medicine, balneotherapy, climatotherapy and scientifically based naturopathic treatments.

Naturally, it is difficult to separate the sub-areas of the field in their practical application. Nevertheless, a separate presentation of sub-areas will be attempted in the following in order to do justice to the definitional character of the consensus conference.

The specialist qualification in the field of physical and rehabilitative medicine covers early rehabilitation, post-acute and long-term rehabilitation as well as the prevention of impairments of functional capacity and the interdisciplinary diagnosis and treatment of structural and functional disorders with conservative, physical, manual and naturopathic therapy measures as well as the procedures of rehabilitative intervention.

Physical medicine

Physical medicine includes the recognition of functional and structural disorders and their treatment with the methods of physical therapy with preventive, curative and rehabilitative objectives. Its therapeutic principles are sparing, activation or attenuation, functional adaptation, as well as sensorimotor learning (exercise, training) and behavioural adaptation.

Diagnostics in physical medicine

Diagnostics in physical medicine serve to identify and evaluate functional and structural disorders of organs or organ systems and of the organism as a whole with the aim of a rational and appropriate use of physical therapy (ICD, ICF). Its specific principles are performance and functional analysis, topodiagnostics, reaction prognostics as well as method- and indication-related therapy control.

Methods

1. General and special anamnesis for the recognition and evaluation of local, regional and total organism-related functional disturbances/capacities, vegetative reactivity and pain
2. General and special clinical examination as complex functional analysis of the affected organs and organ systems as well as of the whole organism including function-related measuring methods
3. Imaging procedures with special consideration of functional aspects, including diseases of the musculoskeletal system, the cardiovascular system, the respiratory organs and the central and peripheral nervous system
4. Laboratory examinations with special consideration of individual resilience and for monitoring progress
5. Orienting neuropsychological assessment of findings.

Procedures

General anamnesis and examination (valid for all specialities)

1. Special anamnesis including necessary assessment procedures
   - Specialised pain history
   - Specialty-related functional anamnesis
   - Anamnesis with regard to stress and relief
   - Anamnesis of vegetative functions
   - Anamnesis of therapeutic agents
   - Social medical anamnesis including occupational anamnesis

2. Special clinical examination
   - Tissue-related structural analysis
   - Subject-related functional and performance analysis
   - Complex functional examination of the affected organs and organ systems as well as the organism as a whole
   - Manual medicine examination
   - Special clinical pain diagnostics
   - Diagnostic interventions

1. Function-related measurement methods

- Mobility measurements
  - Angle measurements/distance measurements
  - Apparative mobility and coordination measurements
  - Circumference measurements
  - Muscle function analysis
    - Isokinetics (conditional properties)
    - Myotonometry
    - Force measurement systems
  - Stance and gait analysis
    - Force plates, pressure measurement systems
    - Goniometric systems
    - Optoelectrical systems/video systems
    - Topometric systems
  - Electrodiagnostics
    - Electromyography (EMG)
    - Nerve conduction velocity (NCV)
    - I/T curve diagnostics (creation of stimulus parameters for individual muscles)
    - Functional electromyography
    - Kinesiological electromyo(poly)graphy
    - EMG polygraphy including EMG mapping
    - EMG posturography
    - Myofeedback
    - Biofeedback/skin conductance
    - Motion analysis
    - Ultrasound topometric systems

- Force and torque measurements
  - Static systems
  - Dynamic Systems
  - Isokinetic systems
- Cardiopulmonary function testing
  - ECG
  - Ergometry
  - BORG scale, oximetry, lactate determination, oxygen uptake capacity
  - Spirometry
  - Spiroergometry
  - Bodyplethysmography
- Metabolic function testing
- Circulation measurement/movement flow measurement
  - Ultrasound duplex examination,
  - Laser Doppler flowmetry
  - Plethysmography
- Algometry
  - Clinical algometry (visual analogue scale, assessment)
  - Apparative algometry (mechanical, electrical, thermal)
- Assessment of tissue condition
  - Sonography
  - Thermometry, -graphy
  - Skin thickness measurement
  - Volume measurement
  - Viscosity, plasticity, elasticity
  - Bone density measurement

2. Imaging techniques
   - Sonography
   - X-ray examination
   - Computer tomography (CT)
   - Magnetic resonance imaging (MRI)
   - Nuclear medicine methods

3. Laboratory examinations
   - Basic diagnostics
   - Monitoring of disease-specific laboratory parameters
   - Laboratory parameters relevant to stress

4. Orienting neuropsychological diagnosis
   - Memory tests
   - Orientation tests
   - Vigilance tests
   - Attention tests

Therapy methods of physical medicine

Physical therapy is the condition-specific and scheduled serial application of kinetic/mechanical as well as thermal, electric, actinic and physicochemical effective qualities in prevention, curation and rehabilitation.

Therapy planning

Definition

The physician carries out therapy planning. It is the creation of an overall concept of targeted prescriptions of coordinated physical therapy measures oriented to the physical impairments, structural and functional disorders as a medical prescription. Therapy planning is individualized, documented and continuously updated with the providers (e. g. rounds, team conference).

Methods

1. Treatment plan
2. Remedy prescription
3. Remedy order

Sub-areas of physical therapy – methods and therapeutic agents

1.2.2.1 Physiotherapy

Definition

Physiotherapy includes forms of kinesitherapy or exercise therapy as well as complex concepts under continuous monitoring of findings for the treatment of physical impairments, structural and functional disorders of the locomotor, nervous, cardiopulmonary, intestinal and urogenital systems as well as the skin and psyche.

Methods

1. Passive measures
2. Active measures (active, assistive, resistive)
3. Physiotherapy on neurophysiological basis
4. Physiotherapy with physiotherapeutic aids
5. Physiotherapy with functional bandages (tape)
6. Respiratory therapy
7. Relaxation therapy

Therapeutic aids

1. Passive measures
   - Positioning
   - Mobilization
   - Extension and traction
   - Stretching
   - Compression
2. Active movement therapy
   - Tension exercise
   - Guided and/or supported movement/assistive
   - Active, axial and/or complex movement exercise
   - Rhythmic dynamic movement exercise
   - Movement against resistance/resistive
   - Movement exercises in water
   - Equipment assisted therapy (see 1.2.2.4)
   - Complex movement and posture patterns (including gait, reaching, standing)
3. Movement therapy on neurophysiological basis
   - Reprogramming and reactivation of movement patterns
   - Reflective control of motor function via proprioception and exteroception
   - Activation of early movement patterns
   - Inhibition using spinal reflexes
   - Inhibition using the intrinsic reflex system apparatus
   - Promotion of movement by successive induction
   - Influencing sensory and mechanical properties of the joint capsule
   - Sensorimotor training

4. Movement therapy with physiotherapeutic aids
   - E.g. balls, bands, spinning tops, soft floor mat, wobble board, swing plate, wall bars, climbing wall, sling table
5. Physiotherapy with functional bandages (tape)
   - Stabilization, movement limitation
   - Sensomotoric supporting/facilitating
   - Decongestive
6. Respiratory therapy
   - Positioning
   - Packing or stimulation grips
   - Vibration, tapping, chest compression, vertical shocks
   - Inhalation and exhalation techniques
   - Breathing facilitating body positions, contact breathing/ sensory breathing control
   - Coughing techniques
   - Use of assistive devices (e. g. resistance transmitters)
7. Relaxation therapy
   - Postisometric relaxation
   - Relaxation via breathing techniques
   - Conscious voluntary relaxation
   - Relaxation via tactile stimuli
   - Use of aids

Concepts (examples)

- Proprioceptive neuromuscular facilitation (PNF)
- Developmental neurological treatment according to Bobath
- Developmental kinesiology treatment according to Vojta
- Maitland concept
- McKenzie concept
- Lifting exercises according to Brunkow
- Sensory integration concepts
- Treatment concept according to Cyriax
- Brügger concept
- Functional movement theory by Klein-Vogelbach
- Feldenkrais Concept
- Solution therapy by Schaarschuch-Haase
- Scoliosis therapy concepts (e. g. Schroth, Klapp)
- Hippotherapy
- Proprioceptive sensomotoric facilitation according to Janda
- Concept according to Alexander
- Progressive muscle relaxation
- Concentrative relaxation, autogenic training
- Concepts for incontinence treatment
- Fascia therapy

1.2.2.2 Occupational therapy

Definition

Occupational therapy is a function-oriented movement therapy including the supply with special aids with the aim of optimizing or compensating disturbed sensorimotor, neuropsychological and psychosocial functions. The focus is on achieving and maintaining the greatest possible independence in daily life. A further task is the preparation and support of a professional reintegration.

Methods

1. Functional training and sensomotoric-perceptive treatment
2. Self-help and transfer training
3. Supply with aids
4. Neuropsychological training
5. Distractive exercise treatment (artistic-creative occupational therapy)
6. Joint protection
7. Advice on and adaptation of measures to improve the living environment and occupational environment, including the necessary stress testing (recording of functional occupational or work-related performance)
8. Workplace-related therapy

Therapy resources

1. Functional training and sensorimotor-perceptive treatment
   - Handicraft techniques (wood, metal, paper, textile, clay, loam, etc.)
   - Use of devices (functional weaving devices, computer)
   - Creative techniques (painting, pottery)
   - Functional games
2. Self-help training (ADL training)
   - Personal hygiene
   - Locomotion and transfer
   - Dressing and undressing
   - Eating and drinking
   - Household
3. Supply with aids
   - Selection of commercially available aids and, if necessary, individual adaptation
   - Testing and training concerning the use of aids
   - Production and adaptation of individual aids
   - Technically assisted communication (computer, telephone, etc.)
4. Neuropsychological therapy
   - Brain performance training in the sense of promoting attention, perception
   - Memory, orientation (training of mental and cognitive functions)
   - Visual exploration training
5. Distraction treatment techniques (as individual or group treatment)
   - Games
   - Creative techniques
   - Interest formation
   - Social communication promotion
6. Joint protection:
   - Joint protection counselling
   - Independence training
   - Orthotic fitting
   - Adaptation of everyday objects
   - Conversion of movement patterns
7. Workplace-related therapy
   - Product and performance oriented training of basic work skills
   - Work training (manual, office, industrial)
   - Load testing

8. Animal assisted therapy

Concepts (examples)

- Perfetti
- Bobath
- Frosty
- Affolter
- Johnstone-Splint
- Maitland
- Basal Stimulation
- Mirror therapy
- Facio-oral therapy
- Kleinert
- Montessori
- Castillo-Morales
- Sensorimotor integration therapy

1.2.2.3 Sports therapy

Definition

Sports therapy is the application of movement-therapeutic measures with the means of sport based on scientific movement and training theory. The aims are the normalization or compensation of disturbed physical, psychological and social functions, the prevention of secondary damage and the promotion of health-oriented behaviour.

Methods

1. Endurance training
2. Strength training
3. Speed training
4. Flexibility training
5. Coordination training

Therapy tools

1. Stamina training
   - Endurance training
   - Interval training
   - Repetition training (repetition method)
2. Strength training
   - Maximum strength training
   - Limited speed strength training
   - Strength endurance training
   - Reactive strength
   - Explosive strength
3. Speed training
   - Reaction speed training
   - Action speed training (movement speed training)
4. Flexibility training
   - Flexibility training
   - Stretchability training (stretching ability)
5. Training of coordinative skills
   - Reaction ability
   - Balance ability
   - Ability to change position
   - Orientation ability
   - Differentiation ability
   - Coupling ability
   - Rhythmization ability

1.2.2.4 Medicomechanics

Definition

Medico-mechanics includes functional treatment with mechanical systems

Methods

1. Continuous passive motion (use of passive motion splints)
2. Sling table treatment
3. Equipment-assisted movement therapy
4. Medical equipment training
5. Apparatus-based extension treatment
6. Use of orthosis and redression systems
7. Gait training with devices
8. Wheelchair training
9. Compression treatment
10. Uprighting, standing and walking aids

Therapeutic aids

1. Continuous passive motion
   - Motorized splints
   - Assisted ergometer systems
2. Medical equipment training
   - Sequential training devices
   - Isokinetic training devices
   - Isometric training equipment
   - Ergometers (e. g. treadmill, step trainer)
   - Pulley systems
   - Sensorimotor training equipment (swinging bars, swinging plates)
3. Self-weight-relieving methods (e. g. sling table (active, passive))
4. Apparatus extension treatment
5. Immobilization, redressment, activation with orthoses
6. Movement training with devices and aids (including forearm crutches, walking stick, rollator, walking bars, weight-relieving systems, computer-assisted systems, exoskeletons, robotics),
7. Wheelchair training (transfer training, barrier training, etc.)
8. Compression treatment (e. g. compression aids, compression bandages etc.)
9. Uprighting, standing and walking aids

1.2.2.5 Manual therapy incl. osteopathic procedures

Definition

The manual therapy/osteopathic procedures using the theoretical principles, knowledge and procedures of other medical fields, manual therapy/osteopathic procedures involve the recording of findings on the musculoskeletal system, the head, visceral and connective tissue structures for differential diagnosis and the treatment of their functional disorders by hand with preventive, curative and rehabilitative objectives. Diagnostics and therapy are based on biomechanical and neurophysiological principles.

Manual therapy/osteopathic procedures include the interdisciplinary application of their diagnostic and therapeutic techniques for the detection and treatment of disturbed functions of the musculoskeletal system and the complaints arising from them, within the framework of a multimodal therapy concept with parietal, vis-

ceral and neurofascial techniques. In this context, concatenations of dysfunctions within the musculoskeletal system, vertebroviscer-al, viscerovertebral and viscerocutaneous, as well as psychosomatic influences, also receive their appropriate consideration.

Methods

1. Soft tissue techniques
2. Mobilization
3. Neuromuscular therapy
4. Manipulation

Therapy tools

1. Soft tissue techniques
   - Local digital compression
   - Longitudinal traction of the musculature
   - Transverse stretching of the musculature
   - Strain and counterstrain techniques
2. Mobilization
   - Repeated passive joint movement
   - Repetitive technique
   - Repeated active joint movement
   - Myofascial techniques
   - Recoil techniques
   - Mobilizing joint drainage
3. Neuromuscular therapy
   - Postisometric Relaxation (PIR)
   - Muscle Energy Technics (MET)
   - Neuromuscular Techniques
   - Myofascial release techniques
   - Visceral and neurofascial techniques
   - Cranial and orofacial techniques
4. Manipulation
   - Shock manipulation - High Velocity Low Amplitude Manipulation
   - Repetitive Manipulation

Concepts

- Manipulative Massage
- Proprioceptive sensorimotor facilitation
- Nerve Mobilization
- Capsular pattern
- Manual medicine (e. g. Sachse, Lewitt, Kaltenborn)
- Osteopathic procedures (parietal, visceral, neurofascial)

1.2.2.6. Massagetherapie

Definition

Massage therapy is a treatment with mechanical stimuli in which functionally or structurally disturbed tissues are directly or indirectly influenced manually.

Methods

1. Classical massage therapy
2. Special massage (primarily reflex massage therapy)
3. Apparatus massage
4. Manual lymphatic drainage

Therapeutic means

1. Classical massage
   - Strokes
   - Kneading
   - Frictions
   - Tapping
   - Circles
   - Vibrations
2. Special massage (mainly reflex massage therapy)
   - Connective tissue massage
   - Segment massage
   - Periosteal massage
   - Colon massage
3. Apparative massage
   - Underwater pressure jet massage
   - Brush massage
   - Vibration massage
   - Apparative decongestion
   - Vacuum suction massage
4. Lymphatic drainage
   - Manual lymphatic drainage

Concepts

- Complex physical decongestive therapy
- Sports massage
- Area massage - secretolysis
- Health massage
- Flossing

1.2.2.7 Direct-, low frequency and medium frequency current therapy

Definition

Medical application of different forms of current (direct current, low and medium frequency currents) for direct or reflex pain treatment, neuromuscular activation or inhibition, creation of sensory movement patterns and influencing of vegetative reactions.

Methods

1. Direct current therapy
2. Low frequency current therapy
3. Medium frequency current therapy

Therapeutic means

1. Direct current therapy
   - Galvanization
   - Hydrogalvanic partial bath (cell bath)
   - Hydrogalvanic full bath (Stangerbad)
   - Iontophoresis
2. Low frequency current therapy
   - Diadynamic currents
   - Ultra stimulation current
   - Transcutaneous electrical nerve stimulation (TENS)
   - High voltage therapy
   - Micro stimulation current
   - Exponential current
   - Threshold current
   - Myofeedback

- Functional electromyostimulation
- Deep oscillation

3. Medium frequency current therapy
   - Pulsed, medium frequency swelling and swelling medium frequency pulses

High frequency therapy

Definition

High frequency therapy is the application of high frequency electrical and/or magnetic fields and waves to induce heat in deeper tissue layers.

Methods

1. Shortwave
2. Decimetric wave
3. Microwave
4. Magnetic field

Therapeutic means

1. Shortwave
   - Capacitor field
   - Coil field
2. Decimetric wave
   - Radiation field
3. Microwave
   - Radiation field
4. Magnetic field
   - Static
   - Dynamic/pulsing

Concepts

- Electroacupuncture
- Cold-assisted electric nerve stimulation (CENS)

1.2.2.9 Ultrasound therapy

Definition

Ultrasound therapy is the application of high frequency mechanical vibrations to generate heat in deeper tissue layers. It can be combined with analgesically effective stimulation currents or with drugs.

Methods

1. Ultrasound
2. Ultrasound stimulation current
3. Phonophoresis

Therapeutic agents

1. Ultrasound
   - Simultaneous sound
   - Impulse sound
2. Ultrasound stimulation current
   - Ultrasound stimulation current
3. Phonophoresis
   - Phonophoresis e. g. with topical NSAID, anesthetics, hyperemic drugs

1.2.2.10 Mechanical vibrations

Definition

Therapy with mechanical vibrations is applied to stimulate neuromuscular and cellular tissues.

Methods

1. Low frequency stimulation: Vibration platforms
2. High frequency stimulation: Shockwave therapy

1.2.2.11 Phototherapy

Definition

Phototherapy includes the therapeutically usable ranges of the optical spectrum infrared (IR), visible light (VIS), ultraviolet (UV) and laser (a specific form of application).

Methods

1. Heliotherapy
2. Infrared therapy
3. Light therapy
4. Ultraviolet therapy
5. Laser therapy

Therapy resources

1. Heliotherapy
   - Recumbent cure
   - Terrain cure
2. Infrared therapy
   - Light radiator (IR-A)
   - Dark radiator (IR-B, IR-C)
3. Light therapy
   - Special lamps for seasonal depression
   - Blue light therapy (indicated for Icterus neonatorum)
   - Chromotherapy
4. Ultraviolet therapy
   - UV-A lamps
   - UV-B lamps
5. Laser therapy
   - Low level laser
   - High level laser

Concepts

- PUVA therapy
- Brine phototherapy
- Laser acupuncture

1.2.2.11 Inhalation therapy

Definition

Inhalation therapy is the therapeutic use of natural and artificial sprays, mists, and aerosols in the upper and lower airway.

Methods

1. Apparatus inhalations
2. Open air inhalations

Therapeutic agents

1. Single apparatus inhalation

- Jet nebulizer inhalation
- Ultrasonic nebulizer inhalation
- Steam inhalation
- Compressed air inhalation
- Apparatus room inhalation

2. Open air inhalation
   - Salt vapour inhalatorium
   - Sea water inhalation

1.2.2.13 Heat and cold therapy

Definition

Therapy with heat and cold media is the application of solid, liquid, or gaseous media to transfer or withdraw thermal energy by conduction or convection to directly influence tissue temperature and for reflex therapy (water and light are independent thermal transfer media: see hydrotherapy and phototherapy).

Methods

1. Cold therapy/cryotherapy
2. Heat therapy

Therapeutic agents

1. Cold therapy (cryotherapy)
   - Ice, ice water, ice bags
   - Cold gel pack
   - Peloid pack
   - Cataplasms
   - Cold air/cold gas (spray)
   - Cold chamber (whole body)
   - Peltier elements
   - MMF (flow-through) pads/cuffs
2. Heat therapy
   - Pads/packs (peloid, kerosene, fango, heat gel wraps)
   - Cataplasms
   - Thermophore (hot water bottle)
   - Hot roll
   - Hot air
   - MMF (Flow-through) pads
   - Peltier elements
   - Radiant heaters
   - Laser applications

Concepts

- Hot stone
- Spray and Stretch
- Hay bag
- Cold sauna

1.2.2.14 Hydrotherapy

Definition

Hydrotherapy is an external water treatment with dosed thermal, mechanical and chemical application result in primary effects on blood circulation and metabolism for long term influence on regulative functions, as well as specific effects of bath additives.

Methods

1. Washings
2. Wraps, packs, pads
3. Casts
4. Baths
5. Rubs
6. Vapors

Therapeutic agents

1. Ablutions
   - Partial washes
   - Complete washings
2. Wraps, compresses, packs (heat-relieving, heat-accumulating, diaphoretic)
   - Local wraps, compresses
   - Short wraps, torso wraps
   - Three-quarter wrap
   - Whole pack
3. Casts (cold, alternating warm, hot)
   - Flat casts (local casts, full casts)
   - Flash casts (local flash casts, full flash casts, segmental flash casts, flash cast bath)
4. Baths (baths with local remedies balneotherapy)
   - Baths with mainly thermal effect
   - Baths with additives (including carbon dioxide bath, sulfur, radon baths)
   - Baths with mechanical effect (underwater jet massage, bubble bath)
5. Rubdowns
   - Partial rubs
   - Whole rubdowns
6. Steams
   - Steam shower
   - Partial steam (head steam bath)

Concepts

- Sauna
- Hydroelectric baths (see also direct, low-frequency and medium-frequency current therapy)
- Kneipp therapy
- Aroma therapy

1.2.2.15 Balneotherapy

Definition

Balneotherapy as a part of balneology is the application of natural, primarily local remedies for prevention, therapy and rehabilitation. The applications are usually serial and within the framework of a complex therapy. It uses both physical and chemical effects of its therapeutic agents, focusing on functional adaptation as active principle.

Methods

1. Baths
2. Drinking cures
3. Inhalations
4. Packs
5. Rinses

Therapeutic products

1. Baths
   - Full and partial baths with
     - Medicinal waters
     - Peloids
     - Medicinal gases
2. Drinking cures
   - Time-limited drinking cures
     - Medicinal waters
     - Deep seawater
     - Drinking mud
   - Medicinal waters permanent use
3. Inhalations
   - Individual, room and open air inhalations with
     - Medicinal waters
     - Healing gases
4. Packs
   - Peloids (subaquatic, terrestric)
5. Rinses
   - healing waters

1.2.2.16 Climatotherapy

Definition

Climatotherapy as a part of medical climatology is the application of thermal, hygric, mechanical, chemical and actinic stimulating and protective factors for prevention, therapy and rehabilitation within a complex spa therapy.

Methods

1. High altitude climatotherapy
2. Low altitude climatotherapy
3. Thalassotherapy
4. Speleotherapy (cave exposure)

Therapeutic means

1. High altitude climatotherapy
   - Allergen free
   - Rest cures
   - Air baths
   - Heliotherapy
   - Terrain cures
2. Low altitude climatotherapy
   - Rest cures
   - Air baths
   - Heliotherapy
   - Terrain cures
3. Thalassotherapy
   - Seawater inhalations
   - Sea baths
   - Heliotherapy
   - Stay in low allergen air
   - Air baths
4. Speleotherapy
   - Rest cures, exercise in cave climate under the influence of
     - Thermal factors
     - Inhalative factors
     - Allergen free
     - Actinic factors (among others radon)

Traditional Naturopathy

Definition

Within the framework of overall medicine, naturopathic treatments encompass the stimulation of the body's own individual regulatory and healing forces, optimized in terms of intensity and timing, through the application of natural agents and processes with only few or no side effects.

Phytotherapy

Definition

Phytotherapy is the study of using medicinal plants or parts of them as medicine.

Methods

Fresh herb, infusion decoction, cold water extract, pulverization. Hydro- and thermotherapy/balneotherapy

→ 1.2.2.14 – 1.2.2.15 Movement therapy
→ 1.2.2.1 – 1.2.2.4 Regulative therapy

Definition

Order therapy is the study of healthy lifestyle with special focus on nutrition, breathing, exercise, self-help and relaxation and their interactions with each other.

Methods

1. Chronotherapy
2. Chronopharmacology
3. Psychagogy (including mindfulness training)
4. Pleasure training

1.2.2.17 Nutritional therapy/dietetics

Definition

Supporting treatment with a healthy diet and a diet adapted to the clinical picture.

Methods

1. Therapeutic fasting
2. Nutritional therapy including certain diets

Concepts

- Therapeutic fasting according to Buchinger (vegetable juices and broths, tea with honey)
- F.X.-Mayr therapy (milk/bread diet, special abdominal treatment)
- Schroth cure
- Whey cure
- Zero diet (tea/mineral water cures) incl. fasting
- Very-low-calorie diet
- Crash diet
- Interval fasting
- Low carb

Conflict of Interest

The authors declare no conflict of interest.