

Consultation

Most spinal column ailments have a serious effect on a patient's professional and private life. An exact diagnosis based on an exhaustive medical history as well as physical, neurological and instrumental examinations form the basis of individual patient consultation.

Once a diagnosis has been made, a therapeutic schedule can be drawn up to fit a patient's individual situation. Depending on the findings, therapy can include a variety of purely conservative measures and applications or a surgical alternative, designed to eliminate or at least improve the ailment.

Consultation should help the patient understand the clinical picture and provide the basic knowledge that will help a patient understand the therapeutic program chosen and encourage him to get involved in actively realizing its objectives. This enables the patient to have a positive and lasting effect on the course of the illness.

Physiotherapy, physical therapy

Physiotherapy is used either to maintain the functions of mobility, strength, coordination and muscular balance (prophylactic application), or to improve or restore these functions (rehabilitative application).

The main goals of physiotherapy are:

- Treatment of a muscular dysbalance
- Pain alleviation and functional improvement
- Stretching of shortened muscles and tendons
- Strengthening of muscles using any equipment necessary
- Posture and movement training
- Recognition and treatment of pathological movement patterns
- Treatment of functionally compromised joints
- Prevention of atrophic processes resulting from inactivity (muscle shortening and muscle tissue atrophy)

Physiotherapy is primarily used to treat:

- Congenital and degenerative ("wearing") diseases of the skeletal and locomotor systems
- Mobility dysfunctions with a traumatic, inflammatory or functional basis
- Mobility dysfunctions caused centrally, i.e. of cerebral or spinal cord genesis
- Peripheral paralyses resulting from changes in muscles

Once physiotherapeutic findings have been established, functional dysfunctions can be individually treated using a variety of techniques.

- Special forms of physiotherapy for treatment of scoliosis:

Depending on the specific findings, physiotherapeutic measures specifically designed to treat scoliosis can be used and are a central element of conservative treatment.

- Katharina Schroth method of three-dimensional scoliosis treatment

The Katharina Schroth method of three-dimensional scoliosis treatment is a highly complex physiotherapeutic technique that can be very helpful if practiced intensively and regularly under appropriate supervision.

- The Vojta treatment concept

Vojta developed a movement development model that includes an individual pattern of movement for each person that ensures spatial posture and makes an upright stance and targeted movement possible, and differentiates the different muscle functions within the muscle chains. The spinal column is at the center of these functions, which are automatic and involuntary in nature. Patterns of movement can be activated reflectively, thus influencing the spinal column in three dimensions.

- E-technique (Hanke concept)

This is a neurophysiologic method of treatment that was developed based on the Vojta concept. It helps improve pathological movement and postural patterns.

When combined with special breathing techniques, these therapeutic approaches can help patients stabilize their spinal columns and learn new patterns of posture and movement. As with all supportive conservative treatment, success depends on professional supervision and the successful integration of the exercises as a regular part of everyday life.

Manual therapy

Manual therapy represents a gentle approach to treatment of locomotor apparatus pathologies. Dysfunctions can be treated and alleviated using special manipulations of the joints, the spinal column and vertebral joints. These special manipulations can be used to both for pain relief and to mobilize dysfunctional movement sequences. The techniques of manual therapy involve the interplay of the functional joint-muscle-neural supply unit, and various mobilization techniques can be used depending on the specific findings:

- Various stretching and relaxation techniques applied to soft tissues to “lengthen” foreshortened structures
- Using the traction technique, manual tension can be applied to the affected joint segments to provoke pressure release, potentially reducing pain
- The technique of translatory gliding can be used to restore lost joint mobility.

Chirotherapy

Chirotherapy, or chiropractics, is a method of treating painful dysfunctions of the joints, spinal column and vertebral joints. Blocked joints are “reset” or repositioned using manual techniques, potentially reducing chronic pain in the locomotor system.

Chiropractic techniques should only be used by specially trained therapists, since incorrect manipulations of the spinal column and vertebral joints can result in massive damage or even paralyses.

Chirotherapy must not be used in the presence of acute inflammations, herniated discs, fractures, osteoporosis or an increased tendency to hemorrhage (hemophilia).

Traction treatment

In this treatment method, tensile force is exerted on the spinal column and the joints of the extremities, releasing the load on, and thus alleviating pain in, the vertebral segments, intervertebral discs, any compressed nerve roots and the joints themselves. Traction or extension treatment is normally performed on a traction or sling table. A controlled amount of traction (stretching) of the cervical spine can be achieved using a Glisson sling. Perl's equipment can be used to apply traction to the lumbar spine, relieving pressure on affected spinal cord nerves and intervertebral discs, thus reducing pain. The physiotherapist controls the application of traction by adjusting the direction of pull and the level of force used, and by positioning the joints correctly.

Osteopathy

Osteopathy is a holistic therapeutic method in which manual manipulation methods can be used to recognize and treat dysfunctions of the muscles, muscle sheaths (fasciae), ligaments, the entire skeleton, and the inner organs.

Osteopathy defines its three therapeutic regions of application as: the musculoskeletal system including the bones, joints, muscle fasciae, tendons, and ligaments, the system of inner organs, and the craniosacral system consisting of the skull (cranium), the sacrum (os sacrum), and the interconnecting spinal column.

Physical therapy makes use of natural and artificially generated energy, such as electricity, electromagnetic waves, and heat, to support and enhance healing processes. Physical therapy methods include hydrotherapy, electrotherapy, the application of heat and cold, massages, and traction treatment.

Hydrotherapy (water therapy)

The use of water for healing purposes was known to the ancient Romans. Sebastian Kneipp defined hydrotherapy as one of the five pillars of naturopathic medicine.

The following variants of hydrotherapy can be used:

- Hydro-stimulation
- Washing
- Baths (balneotherapy)
- Saunas
- Moist wraps
- Packs

Thermotherapy (treatment with heat or cold)

In heat treatments, heat from moor or fango packs, infrared light or hot bandages enhances circulation and metabolic activity and relaxes the muscles of the affected regions of the body, resulting in a reduction of the accompanying pains.

In cold treatments (cryotherapy), application of ice cools the affected tissues, resulting in pain relief.

Electrotherapy

In this therapeutic method, the application of pulsed electricity at a constant or varying frequency enhances local circulation in the affected tissues, regulates muscle tone, activates local metabolic processes, and reduces pain.

Massage

The term massage is derived from a Greek word meaning to knead or rub. Early descriptions of massage techniques were passed down from Hippocrates (460-377 BC).

The objective of massage is to stimulate the tissue to be treated by means of specific manipulations with the following results:

- Pain reduction
- Mental relaxation
- Enhancement of circulation
- Decongestion of veins and lymph vessels
- Restoration of normal muscle tone

Depending on the specific dysfunction involved, a number of different massage techniques can be used such as: classical massage, connective tissue massage, reflex zone massage, manual lymph drainage, etc.

PNF (proprioceptive neuromuscular facilitation)

PNF is a specialized stretching technique that uses resistance applied by the therapist to the patient's body during the exercises, and helps restore the physiologic interplay between muscles and controlling nerves.

PNF is used in the treatment of post-stroke paralysis, craniocerebral trauma, after locomotor apparatus surgery as well as with multiple sclerosis and Parkinson's disease.