

The examination of the nerves is a procedure of particular importance in spinal column orthopedics, because an orientational neurological examination can clarify whether neurological abnormalities, such as locomotor or sensory disorders, paralyses or bladder and rectum dysfunctions, are present.

Any acute neurological deficits detected must then be clarified as quickly as possible.

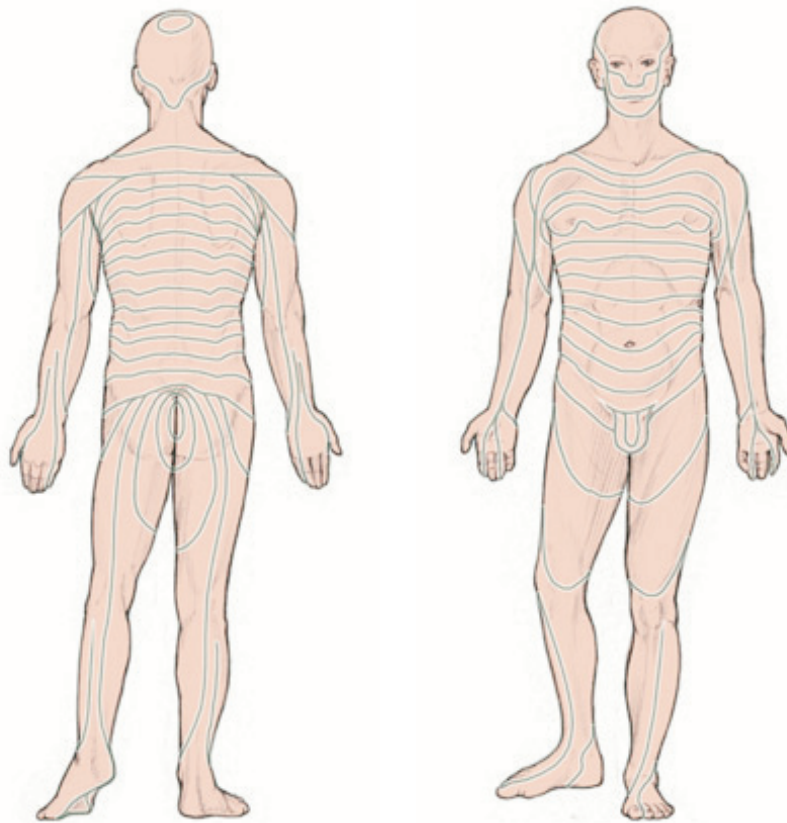
The following aspects are examined:

- Proprioceptive muscle reflexes, i. e. an examination of the functionality of the 2nd or lower motoneuron in each section of the spinal column. The reflex is caused by the passive stretching of the musculature, i. e. by a blow with the reflex hammer on the patellar tendon
- Polysynaptic reflexes are reflexes where the effect takes place at another location from where stimulus was applied. In the abdominal wall reflex, the abdominal skin is stroked to elicit a contraction of the abdominal muscles.
- Pathological reflexes constitute signs of damage to the pyramidal tract and cannot be caused in neurologically healthy persons.
- Sciatic stretch reflex tests:
 - Lasègue: The extended leg is passively raised and the angle at which a sudden strong pain occurs in back and leg noted. A Lasègue's sign exceeding 60° is more likely to correspond to pelvic inclination pain from degenerative changes at the lumbosacral transition than to a nerve root defect.
 - Bragard: The leg is lowered to below the Lasègue pain threshold and the foot is flexed dorsally, passively. The same pain should occur as in the Lasègue test.
 - Turyn: Same procedure as with the Bragard test, but the big toe is dorsiflected.
 - Crossed Lasègue's sign: When the leg is raised on the healthy side, pain occurs on the affected side as in the Lasègue test. The crossed Lasègue's sign confirms nerve root damage.
 - Bonnet: Sciatic pain upon adduction and inward rotation of the leg bent at the knee; the Lasègue's sign also shows a positive result earlier if the leg is moved in partial adduction and inward rotation
 - Valleix trigger points: Pressure-sensitive points along the n. ischiadicus above L4 or 5, the sacroiliac joint, just below the gluteal fold, in the hollow of the knee and behind the lateral malleolus.

· Sensibility test

The regions of the skin innervated by specific spinal nerves are called the dermatomes. Based on the knowledge of which spinal nerves supply which dermatomes, a sensory deficit in one of these dermatomes can indicate which vertebral segment is affected.

- Dermatomes, graphic simplification



- Testing of muscle group gross strength