

Inspection/palpation

Once the patient's medical history has been reviewed, a visual (inspection) and manual examination (palpation) are carried out. The following items are checked:

Inspection**View from the front**

Pelvic obliquity?
Leg axis correct?
Form of thorax?
Head and neck posture?

View from behind

Plumb line deviation of the spinal column?
Lineup of spinous processes?
Muscle relief?
Form of thorax?
Shoulder height bilaterally equal?
Horizontal pelvic position?
Waist triangles symmetrical?
Michaelis rhomboid symmetrical?
Torso overhang?
Lumbar bulge when bending forward?
Costal hump when bending forward?

View from the side

Head and neck posture?
Normal pelvic inclination?
Form of the spinal column in the sagittal plane:
· Humpback?
· Hollow back?
· Sway back?
· Kyphosis?
· Flat back?
Visible variation in height between two adjacent spinous processes?

Palpation

Does this cause pain?
Is percussion or compression pain caused in spinal column?
Muscle tenderness or pain upon application of pressure?
Spinous or transverse processes painful?
Sacroiliac joints painful?
Sciatic trigger points (Valleix points) painful?
Varying height palpable in spinous process row?

Function and mobility tests

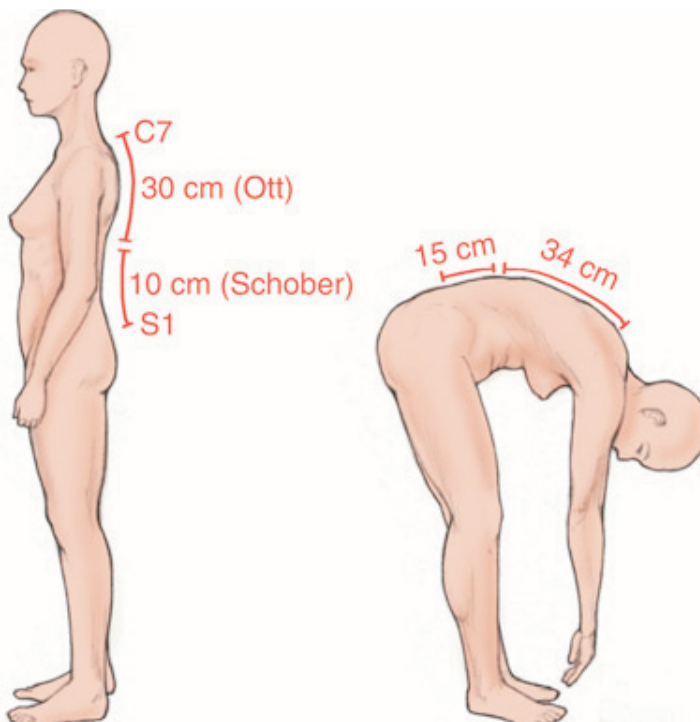
- Measurement of spinal column mobility by the neutral zero method in which the mobility dimensions are measured according to a standardized method for bending over forward (flexion), bending backward (extension), rotation (torsion) and lateral inclination.
- Finger-floor distance: Expression of spinal column mobility when bending over forward; the dimension that is measured is the distance between the tips of the fingers and the floor when the patient is bent over forward with knees and arms fully extended.

- Finger-floor distance



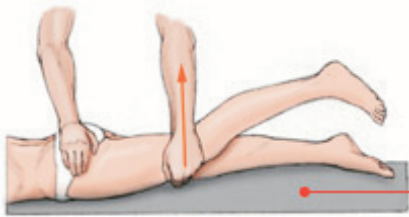
- Schober's sign: Measurement of extent to which the lumbar spine can unfold and extend. In standing position, a point 10 cm above L5 is marked. With the torso at maximum flexion the distance should increase by approx. 5 cm.
- Ott's sign: Measurement of unfolding and extension of the thoracic spine. A point 30 cm below C7 is marked on the spinal column. With the torso at maximum flexion the distance should increase by approx. 3-4 cm.

- Schober's and Ott's signs

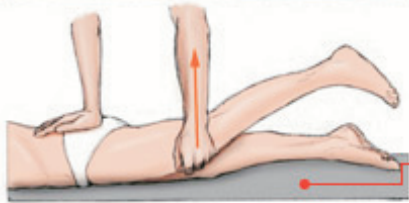


- Psoas sign: Sign of disease of the lumbar spine or sacroiliac joints
- 3-stage hyperextension test, done with patient in face-down position, provides the examiner with evidence as to whether a disease of the hip joint, sacroiliac joint or lumbosacral transition is involved.

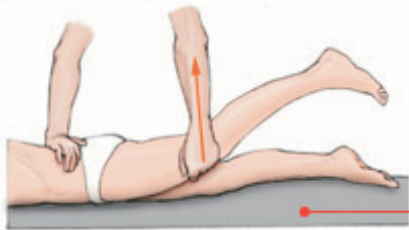
- 3-stage hyperextension test



· Spinous process of the lumbar spine



· Iliac crest (crista iliaca)



· Posterior superior iliac spine (spina iliaca posterior superior)

- Testing of the sacroiliac joints:

- Check for ligament extension pain (ligamentum iliolumbale, lig. sacrospinale and lig. sacrotuberale)
- Spine test

When the sacroiliac joint is not blocked, the spina iliaca posterior superior drops downward by approx. 1-2 cm when the leg on the same side is raised with the knee bent.

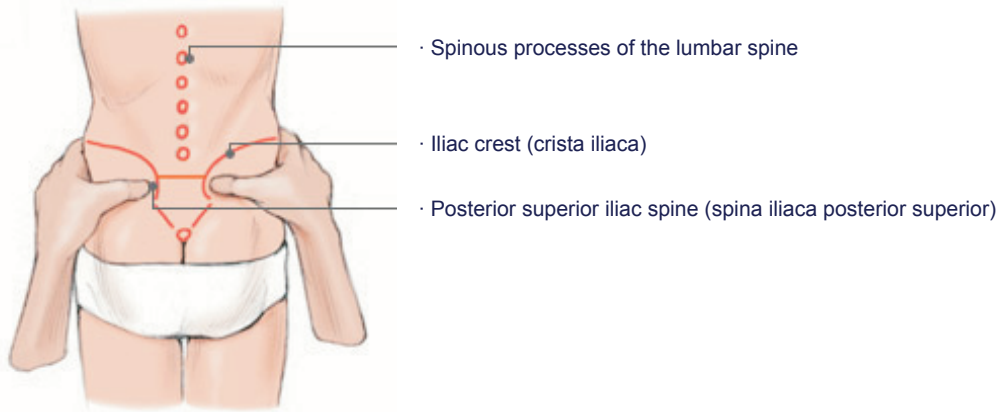
- Menell's sign

With the patient in face-down position, the sacrum is fixed in position and the extended leg raised and moved to the point of hip overextension. If the sacroiliac joint is blocked, this will be painful.

- Forward flexion phenomenon test

The posterior superior iliac spines (spina iliaca posterior superior) are palpated while patient stands. The position of the iliac spines with patient standing upright is compared to the position after flexing the upper body. The forward flexion phenomenon is said to be positive if a blocked sacroiliac joint causes the iliac spine on the blocked side to be pulled upward with the sacrum.

• Initial standing position



• Position with flexed upper body (positive forward flexion phenomenon on the left side)

