



AUTOMOBILIZATION OF JOINTS

SPINE AND PELVIS

CERVICAL SPINE

CERVICOCRANIAL TRANSITION

Position: Sitting upright – it is possible to support the back on a chair. The patient places the fingers of one hand on the chin.

Movement: The patient presses the chin to the neck, thereby equalizing the extension position of the CC transition and the flexion CTh transition

Execution: Repeated movements to the extreme position alternate with relaxation. Repeat according to reaction 8-10 times.

Errors: Insufficiently straightened seat.



C1-2 – LATEROFLEXION

Position: Sitting upright – it is possible to support the back on a chair. The hand on the treated side is placed on the neck from the side, the edge of the little finger just below the lower jaw, the forearm is directed perpendicular to the axis of the cervical spine if possible.

Movement: With the other hand, the patient places the palm on the temple and ear and bends the head against the fixation.

Execution: The patient in the pretension deepens the breathing and observes whether the range increases during inhalation or exhalation. If during inhalation – the mobilization phase is during prolonged deep inhalation. If during exhalation, the patient in pretension takes a deep breath and the range increases during exhalation. Repeat 3-5 times.

Errors: The seat is not straight enough. The patient bends the entire cervical spine.



CERVICAL SPINE – EXTENSION

Position: Sitting upright – it is possible to support the back on a chair.

Movement: Full extension of the C spine, then head rotation with a gradual increase in range of motion.

Execution: Repeated movements to extreme position. One cycle lasts about 10 seconds. Repeat 3-5 times.

Errors: Insufficiently straightened seat.



CERVICAL SPINE – LATEROFLEXION

Position: Sitting upright – it is possible to support the back on a chair. The hand on the treated side is placed on the neck from the side, with the pinky edge on III. to IV. vertebrae. If possible, the forearm is directed perpendicular to the axis of the cervical spine. Fixation IV. or V. vertebra, the patient performs with the opposite hand using II. and III. finger.

Movement: With the other hand, the patient places the palm on the temple and ear, tilts the head against fixation – for the caudal segments, using the ipsilateral upper limb, which pulls the head into the tilt.

Execution: PIR – in pretension, the patient takes a deep breath and increases the range during exhalation. Repeat 3-4 times.

Errors: The seat is not straight enough. The patient bends the entire cervical spine.

**CERVICAL SPINE – TRACTION**

Position: Sitting upright – it is possible to support the back on a chair. The patient grabs his head in the area of the temples and ears with both hands.

Movement: By pressing the hands upwards, he performs traction on the C spine.

Execution: PIR - performs isometry by looking up, in the relaxation phase, lowers or closes the eyes. Relaxation is on exhalation. Repeat 3-4 times.

Errors: Insufficiently straightened seat. Too big a pull.

**CTh TRANSITION**

Position: Sitting upright – it is possible to support the back on a chair. The patient places the fingers of one hand on the chin and aligns the C spine – just like in the CC transition.

Movement: Extension of the C spine to the extent that allows the chin to be kept close to the neck. In this extension, the patient rotates the head alternately to both sides.

Execution: Repeated movements gradually to the extreme position. Extension is done during exhalation. One cycle about 5 times on both sides. Repeat 3-5 times.

Errors: Insufficiently straightened seat. Failure to maintain CC transition anteflexion (chin at neck).



THORACIC SPINE AND RIBS

THE FIRST AND THE SECOND RIB

Position: Sitting upright – it is possible to support the back on a chair. The hand on the treated side is placed with the palm on the temple and ear, the forearm is as perpendicular as possible to the axis C of the spine.

Movement: Lateroflexion of the cervical spine against resistance – simultaneous pressure of the head and hand against each other.

Execution: Repeated pressure and release approximately 1 - 2x per second. Repeat 20-30 times.

Errors: Insufficiently straightened seat. Repetition rate too fast.



THORACC SPINE – SEATED EXTENSION

Position: Sit on the front edge of the chair, facing the wall. Knees and feet are about hip-width apart or slightly more, touching the wall. The head, which is supported by the hands, also leans against the wall. The trunk is as straight as possible.

Movement: Extension (straightening) of the thoracic spine.

Execution: Mobilization is performed during a deep exhalation to the maximum. A deep breath takes place during relaxation. It is repeated in the rhythm of slow, deep breathing - 5-10 times.

Errors: Extension takes place mainly in the thoracolumbar junction.



THORACC SPINE – SEATED ROTATION

Position: Sit upright, knees and feet at least hip-width apart. The upper limbs are in abduction around 90 degrees, elbow joints in semiflexion.

Movement: Trunk rotation.

Execution: Repetitive mobilization. Repeated 5-7 times from preload, 2-3 times on each side.

Errors: Too much intensity of mobilization.



THORACIC SPINE – KNEE FLEXION

Position: Sit on your heels.

Movement: Lean forward. The head is resting on the ground or a mat. Inspiratory chest movement.

Execution: Mobilization using a deep breath, which increases the kyphosis especially of the thoracic spine. Repetition in a slow rhythm of breathing - 10-15 times.

Comment: Instruction of a patient with knee joint disorder/pain.

**THORACIC SPINE – FLEXION x EXTENSION**

Position: Kneeling support. The upper limbs are supported by the forearm and hand. The head is in extension of the trunk, the elbows are below the shoulders, the knees are at the width of the pelvis or a little more.

Movement: Alternating movements of the trunk into flexion and extension.

Execution: Repeated movements to extreme positions in the rhythm of slow breathing – flexion during inhalation, extension during exhalation. Repeat 8-10 times.

**THORACC SPINE – ROTATION**

Position: Kneeling support. The upper limbs are supported by the forearm and hand. The head is in extension of the trunk, the elbows are below the shoulders, the knees are at the width of the pelvis or a little more.

Movement: Rotation of the trunk and head behind the locked upper limb.

Execution: Slow movement to extreme position. The direction of rotation alternates regularly. Rotation is done naturally during inhalation. Repeat 8-10 times.

**THORACIC SPINE – LATEROFLEX**

Position: Kneeling support. The upper limbs are supported by the forearm and hand. The head is in extension of the trunk, the elbows are below the shoulders, the knees are at the width of the pelvis or a little more.

Movement: Lateroflexion of the trunk and head.

Execution: Slow movement to the extreme position during exhalation, return to the basic position with inhalation. The direction of the bow alternates regularly. Repeat 8-10 times.





THORACC SPINE – LYING EXTENSION

Position: Lying on the back, the lower limbs are in semiflexion. Support in the area of limited mobility of the Th spine – with a soft cylinder with a diameter of around 20 cm, hands behind the back.

Movement: Trunk extension – placing the head and upper torso on the mat.

Execution: Repeated movement to the extreme position – must be the corresponding diameter of the cylinder). Extension is done during exhalation. Repeat 8-10 times.



THORACOLUMBAR JUNCTION – FLEXION x EXTENSION

Position: Kneeling support. The upper limbs are supported by the palms, which are slightly in front of the shoulders. The elbows are under the shoulders and slightly bent, the head is in extension of the trunk, the knees are at the width of the pelvis or a little more.

Movement: Alternating movements of the trunk into flexion and extension.

Execution: Repeated movements to extreme positions in the rhythm of slow breathing – flexion during inhalation, extension during exhalation. Repeat 8-10 times.



THORACOLUMBAR TRANSITION – ROTATION

Position: Kneeling support. The upper limbs are supported by the palms, which are slightly in front of the shoulders. The elbows are under the shoulders and slightly bent, the head is in extension of the trunk, the knees are at the width of the pelvis or a little more.

Movement: Torso and head rotation.

Execution: Slow movement to extreme position. The rotation is performed naturally during inhalation, the direction of rotation alternates regularly. Repeat 8-10 times.



THORACOLUMBAR TRANSITION – LATEROFLEXION

Position: Kneeling support. The upper limbs are supported by the palms, which are slightly in front of the shoulders. The elbows are under the shoulders and slightly bent, the head is in extension of the trunk, the knees are at the width of the pelvis or a little more.

Movement: Lateroflexion of the trunk and head.

Execution: Slow movement to the extreme position during exhalation, return to the basic position with inhalation. The direction of rotation alternates regularly. Repeat 8-10 times.

THORACOLUMBAR TRANSITION – ISOMETRY OF THE PSOAT

Position: Lie on your side, head supported by a pillow. Upper lower limb – flexion in the hip joint 90 degrees. Rotation of the trunk and head to the opposite side. The hand of the lower upper limb rests with the palm above the knee.

Movement: Thigh pressure against palm into flexion – isometric contraction.

Execution: Repeated pressure and release approximately 1 - 2x per second. It is repeated 15-20 times on each side.



LUMBAR SPINE AND PELVIS

LUMBAR SPINE – EXTENSION LYING ON THE BELLY

Position: Support lies.

Movement: Passive trunk extension.

Execution: Repeated movements to maximum (painless) extension, short endurance at the end of the movement and targeted relaxation with exhalation. Repeat 8-10 times.



LUMBAR SPINE – FLEXION LYING ON THE BACK

Position: Lie on your back, head supported by a pillow. The lower limbs are kept in flexion by the upper limbs.

Movement: Maximum flexion of the lower limbs, which in the extreme position flexes the lumbar spine.

Execution: Repeated movements with tightening to the extreme position. Mobilization by PIR technique. The relaxation phase is performed with exhalation. Isometrics – pressure of the lower limbs into extension. Repeat 8-10 times.



LUMBAR SPINE – LYING ROTATION

Position: Lie on your side, head supported by a pillow. The upper lower limb in semiflexion, supported by the instep in the popliteal fossa of the lower lower limb.

Movement: Backward rotation of the head and trunk.

Execution: Repeated active repetitive mobilization starting from the extreme position – pretension. Repeat 8-10 times, repeat the entire cycle 2-3 times.



LUMBAR SPINE – STANDING EXTENSION

Position: Stand cross-legged.

Movement: Trunk extension, fixation according to mobilization targeting.

For upper part – position of the hands under the ribs, the little fingers are closer to the head and the thumbs from the side on the ribs.

For middle part – thumbs are as close as possible and point towards each other, fingers point towards the stomach.

For lumbosacral transition – hands on the buttocks, fingers pointing to the ground. Execution: Repetitive mobilization. Repeat 8-10 times.

Errors: The extension does not end at the point of fixation. Flexion of the knees when bending over.



LUMBAR SPINE – SITTING FLEX

Position: Sit upright on the front edge of the chair. Knees and feet are hip-width apart.

Movement: Gradual flexion of the entire spine.

Execution: Repeated active movements into flexion, at the end of the movement emphasized by grasping the hands above the ankles and passive tightening to the maximum. Mobilization during exhalation. Repeat 8-10 times.

LUMBAR SPINE – FLEXION x EXTENSION

Position: Kneeling support. The upper limbs are slightly in front of the shoulders and supported by the palms, at a height of 20-30 cm above the ground. Elbows are under the shoulders and slightly bent, head in extension of the trunk, knees at the width of the pelvis or slightly more.

Movement: Alternating movements of the trunk into flexion and extension.

Execution: Repeated movements to extreme positions in the rhythm of slow breathing – flexion during inhalation, extension during exhalation. Repeat 8-10 times.

Note: *ATTENTION IN THE VIDEO THERE IS NO SUPPORT FOR THE UPPER LIMBS! OTHERWISE THE EXECUTION IS THE SAME!*

LUMBAR SPINE – ROTATION

Position: Kneeling support. The upper limbs are slightly in front of the shoulders and supported by the palms, at a height of 20-30 cm above the ground. Elbows are under the shoulders and slightly bent, head in extension of the trunk, knees at the width of the pelvis or slightly more.

Movement: Torso and head rotation.

Execution: Slow movement to extreme position. The rotation is performed naturally during inhalation, the direction of rotation alternates regularly. Repeat 8-10 times.

LUMBAR SPINE – LATEROFLEX

Position: Kneeling support. The upper limbs are slightly in front of the shoulders and supported by the palms, at a height of 20-30 cm above the ground. Elbows are under the shoulders and slightly bent, head in extension of the trunk, knees at the width of the pelvis or slightly more.

Movement: Lateroflexion of the trunk and head.

Execution: Slow movement to the extreme position during exhalation, return to the basic position with inhalation. The direction of movement alternates regularly. Repeat 8-10 times.

SACROILIAKAL JOINT – LYING ON THEIR SIDE

Position: Lie on the untreated side, head supported by a pillow. The lower limb is bent at the hip and knee joints to about 90 degrees.

Movement: Antero-ventro-cranial pull for the front spina of the pelvis.

Execution: Repetitive mobilization. Repeat 10-15 times.

**SACROILIAKAL JOINT – LIES ON THE STOMACH**

Position: Lie on your stomach, head turned to the treated side. Abduction of arms to 90 degrees.

Movement: Abduction of the lower limb on the treated side to the maximum – the possibility of increasing the movement using the pull of the upper limb.

Execution: Repeated movements to the maximum during exhalation. Repeated 8-10 times.

