

# Trunk reflexes

\_\_bezobsahu\_\_

**Trunk reflexes** correspond to the **intactness of a certain part of the trunk**. Basically these are **unconditioned reflexes** and their examination does not require the cooperation of the patient. This is especially beneficial in a situation where it is necessary to evaluate neurological findings in an unconscious person . Examination of the trunk and diencephalic reflexes is usually preceded by the determination of the level of consciousness using the Glasgow Coma Scale . In people with an altered neurological condition, clinical diagnosis is quite complicated. The equipment of the trunk reflexes makes it possible to specify the vertical localization of the problem, as well as the possible progression or regression of the condition.

Reflexes are always examined in **craniocaudal order** (see table). The last non-equipped reflex and the first equipped reflex determine the lowest level of trunk disability. Trunk reflexes tend to be **symmetrically preserved** in metabolic, anoxic and toxic bilateral impairments of the hemispheres. It gradually disappears during the progression of the craniocaudal deterioration syndrome. They are renewed in the same order when the syndrome recedes, no later than the end of the second week. A delay in recovery indicates a secondary complication of the condition, such as infection or intracranial hypertension . **Reflexes are unilaterally** affected in unifocal lesions.

Etáž Trunk floor	Reflex	Equipment	Expected reaction	Extinction	Benefit
diencephalon	cilio-spinal	strong pressure of the skin in the upper bud	unilateral pupil dilation	lesions of the midbrain, trunk and cervical spinal cord	equipment together with other trunk reflexes indicates a disorder of consciousness conditioned by a lesion in the cortex-subcortex plane
diencephalon-mesencephalon	nasopalpebral (frontoorbiokular)	tap on the glabella	slow contraction of the upper parts of the orbicularis oculi muscle	lesion of the mesencephalon-midbrain reticular formation extinguishes 	equipped on both sides at the onset of the awakening reaction; if it is not present half a year after the correction of the coma - probable irreversible structural damage to the cerebral cortex
diencephalon-mesencephalon	oculocephalic vertical	repeated head movements head tilt-forward head tilt	conjugate movement of the bulbs in the opposite direction (baby-doll response) = when the head is tilted, the patient looks down	damage to the vestibulo-ocular structures	they cannot be recalled when fully conscious, they are inhibited from the visual centers  paralysis of the vertical reflex with preserved horizontal = bleeding into the thalamus and compression of the upper part of the brainstem
mesencephalon-pons (middle mesencephalon)	pupillary	unilateral illumination of the eye	standard reaction = constriction of the pupil ipsilaterally (direct reflex) and contralaterally (indirect reflex)		
mesencephalon-pons (superior)	corneal	unilateral irritation of the cornea	standard reaction = closing the lids of both eyes (again direct and	lesions of the trigeminal nerve , facial nerve ,	bilaterally incapacitated with severe

pons)		with a piece of cotton wool	indirect depending on the side)	and oculomotor nerve	brainstem damage
mesencephalon-pons (middle pons)	masseteric	tap the mallet over the finger on the center of the chin with the mouth slightly open	contraction of the masticatory muscles		death in deep coma due to muscle atony, hyperreflexia is common in coma
mesencephalon-pons (inferior pons)	oculocephalic horizontal	movement of the patient's head from right to left	conjugate movement of the bulbs in the opposite direction = I turn the head to the left - the patient looks to the right	secondary = diffuse damage to the hemispheres unilateral = occlusion of the basilar artery , bleeding into the cerebellum, hematomas of the posterior cranial fossa bilateral = primary lesion of the pons, barbiturate poisoning, transtentorial herniation dissociation = oculomotor nerve palsies accessory/hyperactive = primary hemispheric structural lesion or diffuse hemispheric damage (excludes trunk involvement at the level of the oculomotor nuclei) unilateral disappearance = homolateral lesion of the abducens nerve	
pons-bulbus	oculocardiac	finger pressure on the bulbs with closed eyes	slowing of the heart rate, present repeatedly, min.  15 beats/min	pons lesion, trigeminal nerve lesion (orbital fractures)	maximum reflex response in the first 20 seconds; when fully conscious, it is accompanied by nausea, the presence of only this reflex is a sign of an unfavorable prognosis
medulla oblongata	cough and gag reflex	we do not deliver on purpose	gagging/coughing during insertion of the endotracheal tube		

## Links

- ws:Kmenové reflexy

## Related articles

- Brainstem

## References

- CMP manuál (<http://www.cmp-manual.cz/Kmenovereflexy.html>)
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## External links

- Hodnocení vědomí u akutního bezvědomí (<https://slideplayer.cz/slide/2908804/>)

Kategorie:Neurologie