

# Vestibular syndrome

**Vestibular syndrome** arises when the mutual balance of the vestibular apparatus is disturbed.

- An irritating lesion on one side has similar manifestations as a disappearing lesion on the opposite side.
- The main vestibular symptom: dizziness of a rotational nature (**vertigo**) accompanied by vegetative manifestations (nausea, vomiting, paleness, cold sweat).
- The conflict of individual sensory inputs leads to **kinetosis** (e.g. carousel): pronounced vegetative manifestations, mild dizziness.<sup>[1]</sup>

## Peripheral vestibular syndrome

- Caused by **disruption of the 1st neuron of the vestibular pathway** (ie in the area of vestibular receptors or ggl. vestibular nerve).
- **Harmonic:** the same direction of the slow component of nystagmus and deviation, all tonic deviations in the direction of a relatively weaker labyrinth ("falls behind the diseased ear", is dependent on the position of the head).
- Always accompanied by dizziness (usually rotational), nystagmus, vegetative manifestations.
- **Hautant test:** tonic deviations of the arms when the forearms are raised and the eyes are closed, associated with a deviation of the trunk in the same direction, symptoms depending on the position of the head, deviations of both HKK often in the direction of the slow component of the nystagmus.
- The nerve can be damaged by many pathological processes that affect the membranous labyrinth (inflammation, noise, ototoxic ATB), or the nerve in its intracranial course (vestibular schwannoma, tumors in the posterior cranial fossa, etc.)<sup>[2]</sup>
- Hearing impairment is often added.
- **Menière's disease:** the cause is hydrops of the labyrinth, recurrent paroxysmal dizziness with pronounced vegetative accompaniment, unilateral tinnitus and hearing impairment, nystagmus beats to the side of the healthy labyrinth.
- It is examined using rotational and caloric tests (detection of the irritability of the vestibular apparatus).<sup>[1]</sup>

## Central vestibular syndrome

- **Not dependent on head position**, accompanied by permanent dizziness.
- Tonic deviations go in different directions.
- **Dysharmonic.**
- Occurs when the *2nd neuron of the vestibular pathway* is affected (nuclei and their projections affected).
- Occurrence within trunk syndromes with cerebellar involvement.
- **Etiology:** vascular, tumor, inflammatory, traumatic.<sup>[1]</sup>

notes.:

**Ataxia:**

1. **vestibular:** titubation dependent on head position, Romberg positive (worse with closed eyes)
2. **cerebellar:** titubation independent of head position, Romberg neg., paleo - backward falls
3. **spinal'** (affect. posterior cords): titubation in all directions, independent of head position, Romberg pos.

## Links

### Related Articles

- Vestibular apparatus
- Nystagmus
- Dizziness
- Nystagmus/PGS/diagnosis
- Balance disorders/PGS
- Vertigo/PGS/diagnosis
- Cervicogenic vertigo/PGS/diagnosis
- Romberg test

### References

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  - SEIDL, Zdeněk. *Neurologie pro studium a praxi*. 1. edition. Grada Publishing, 2004. ISBN 80-247-0623-7.
1. SEIDL, Zdeněk – OBENBERGER, George. *Neurology for study and practice*. 1. edition. Grada Publishing, 2004. ISBN 80-247-0623-7.

2. PETROVICKÝ, Pavel. *Anatomie s topografií a klinickými aplikacemi (III. svazek)*. 1. edition. Osveta, 2002. ISBN 80-8063-048-8.