

# Vestibular Neuritis

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## Fact Sheet

Vestibular neuritis (VN) is the third most common cause of peripheral vertigo.<sup>1</sup> The reported incidence is 3.5 per 100,000 and accounts for 7% of patients seen in vertigo specialty clinics.<sup>1</sup> The diagnosis is one of exclusion. The main signs and symptoms are acute or subacute onset of:

- Sustained rotatory vertigo
- Horizontal spontaneous nystagmus toward the non-affected ear, with a rotational component
- Oscillopsia – blurred vision or movement of visual surrounding
- Gait and postural imbalance – falls toward the affected ear –positive Romberg test
- Nausea and vomiting

The intensity of the spontaneous nystagmus described above should be enhanced by eye closure (increase can be seen or felt through eyelids), Frenzel glasses, and convergence. If there is no significant difference in the intensity of nystagmus with eye closure or Frenzel glasses, the diagnosis of vestibular neuritis is excluded. This indicates a central lesion. Suspected diagnosis of VN is supported by a positive head-impulse test, which represents a unilateral defect of the vestibuloocular reflex.

### Should steroids be used to treat Vestibular Neuritis?

Studies suggest that steroids accelerate early recovery of vestibular function measured by canal paresis but may not improve the long-term prognosis of VN. Steroid therapy was recommended as the pharmaceutical treatment of choice for vestibular neuritis in a review on medical treatment of vestibular disorders with recommendation that it should be started within the first few days but not after one week of onset.<sup>2,3,4</sup> The two dosage regimens that have been studied are presented in the Table below taken from Walker 2009.<sup>5</sup>

Drug/Dose	Day	Drug/Dose	Day
Methylprednisone		Prednisone	
100 mg	1-3	1 mg/kg	1-5
80 mg	4-6	1 mg/kg minus 20 mg	6-8
60 mg	7-9	1 mg/kg minus 40 mg	9-11
40 mg	10-12	1 mg/kg minus 60 mg (minimum dose 10-20 mg)	12-14
20 mg	13-15	1 mg/kg minus 80 mg (minimum dose 5-10 mg)	15-17
10 mg	16-18, 20, 22	5 mg/kg (only if prior dose > 7.5 mg)	18-20

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## What are the recovery and recurrence rates of VN?

Most patients prefer to stay in bed for 1 to 3 days, and after 1 to 6 weeks are symptom-free during slow movements. Recuperation is dependent on recovery of the vestibular nerve through functional restitution, central compensation, and physical activity. Central compensation is improved by vestibular rehabilitation. Brandt et al. reported peripheral function recovery between 40-63% and recurrence rate of 2% within 10 years with no recurrence observed in the initial affected ear.<sup>6</sup> Recovery can be complicated by benign paroxysmal positional vertigo that develops within a few weeks in approximately 10 to 15% of patients with VN.<sup>6</sup> It is recommended that patients be instructed in this possibility, and that they can be treated with repositioning treatments if needed. Another complication of VN is a somatoform phobic postural vertigo.<sup>7</sup>

## Why do some patients retain persistent imbalance?

Persistent balance problems can be due to inadequate central compensation or to incomplete peripheral recovery, both of which respond to vestibular rehabilitation.<sup>1,8</sup> The key to successful treatment is starting early and continuing for at least a month.<sup>8</sup>

## Where can patients with Vestibular Neuritis receive Vestibular Rehabilitation?

A physical therapist with advanced training in vestibular rehabilitation can provide effective care. Physical therapists reporting experience treating patients with vestibular disorders can be found at [http://www.neuropt.org/map\\_Vestibular/map.html](http://www.neuropt.org/map_Vestibular/map.html).

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