## EAR, NOSE & THROAT

# When the room starts to spin

The sensation of giddiness can be induced through ear-related or non-specific conditions. Learn more about both.



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Vertigo is the sensation of the room spinning around; more often than not, it is caused by an ear-related problem. In another condition called non-specific giddiness, sufferers have described it as feeling woozy, faint or lightheaded, or as if they were swaying.

This feeling of instability is common in older patients, although the problem can arise at any age. As these attacks are unpredictable, they dramatically restrict one's lifestyle and activities, increase accidents and falls, and can lead to depression.

### Non-ear-related causes

About 70% of all cases of giddiness fall under this category. Problems that could induce the sensation include medications, dehydration or overheating, low blood sugar or anaemia, poor vision, orthopaedic and heart disease, strokes, brain tumours or injuries and even a sedentary lifestyle. Children may have giddiness from minor epileptic attacks or migraine attacks without headaches. Patients can concurrently have overlapping causes of giddiness.

### Ear-related causes

The ear balance system consists of three semicircular canals that detect rotational head movement, and two sacs that detect horizontal movement and vertical acceleration. When any portion of this ear balance system is affected by disease, it can lead to vertigo. Common causes include:

• Benign paroxysmal positional vertigo (BPPV) About half of all older adults experience this. In younger patients, it usually follows infections and head injury. A brief, intense spinning happens when the patient changes head position (getting out of bed, at an exercise class). Although the recurrence rate can be as high as 40%, most cases resolve with a particle repositioning manoeuvre in the clinic.

- Inner- or middle-ear infection This condition often accompanies a flu or cold.
- Meniere's disease Besides vertigo, this disease causes hearing loss. The patient sometimes 'hears' ringing and feels a sense of fullness in the ear.
- Ear balance nerve disorder This problem could arise due to a viral infection or tumour.
- Perilymph fistula

This happens when there is a leak of innerear fluid, which is associated with diving, head injury or physical exertion.

• Mal de Debarquement syndrome This is defined as the feeling of continuous bobbing after sea travel.

The patient should consult a doctor who is enthusiastic about getting to the root cause and pays careful attention to case history. Careful testing for positional vertigo of all three semicircular canals — not just the posterior canal — is needed. Also to be evaluated are neck-spine and neck-brain circulations, as well as blood pressure changes when lying and standing.

In recalcitrant cases, a full spectrum of tests — such as the vestibulonystamography (VNG) test, video head impulse test (VHIT), vestibular evoked myogenic potential (VEMP) and even rotatory chair tests — is usually needed. Oral anti-vertigo and anti-nausea medications are used in acute giddiness, while injection of gentamicin or steroids into the middle ear may be considered. For uncompensated giddiness, rehabilitation therapy helps. Surgery is reserved for debilitating cases. (b)