



Mal de Débarquement

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What is it?

Mal de débarquement literally means sickness of disembarkment. This term originally referred to the illusion of movement felt as an aftereffect of travel on water by ship or boat. Some experts now include other types of travel (such as train and airplane) and situations with new and different movement patterns (such as reclining on a waterbed).

This illusion of movement almost always stops after several hours of time. This sensation is very common, with a study finding that 73% of professional sailors experience it.⁶

Longer lasting mal de débarquement

For a handful of people this illusion of movement seems to last for long periods of time: weeks to months, even years after a voyage. This potentially disabling *persistent* form was formally described in the medical literature in 1987¹ and is the form covered here. Some physicians refer to it simply as mal de débarquement while others call it mal de débarquement syndrome, reflecting that it is a collection of symptoms rather than a specific disease.

What causes it?

Exposure to an unfamiliar movement type (such as experienced in a ship, train or

airplane) and then the removal of that movement initiates mal de débarquement. But why it becomes the longer lasting form in a few people and not in the vast majority is unknown. Sea travel continues to be the most common starting point for the disorder.

Leading explanations for mal de débarquement conclude that the problem is not in the inner ear and most likely occurs someplace in the balance areas of the brain. The brain adapts to the motion of the ship or other vehicle; but once the movement stops, the brain is unable to readapt once again. Why this ability to adapt would suddenly stop is not understood.

One theory considers that certain movements, such as experienced in a boat, expose a person to simultaneous upward and downward movements, along with tilts to the left and right, as well as forward movement in a nearly straight path. During this time the brain must send out signals to the leg and body muscles so that they move in ways that will counter the different, rhythmical shipboard movements. Adaptation to such movement is sometimes referred to as gaining "sea legs." These new patterns of adjustment are unlike usual movements. So it may be that the brain

becomes accustomed to this new pattern of signals and cannot return immediately to the old patterns once the movement stops. This prevents the redevelopment of "land legs."

Long lasting mal de débarquement is experienced by middle aged woman more than by other groups. The reason for this is unknown. One theory is that mal de débarquement is a migraine variant, an alternate way for a migraine to be experienced. And since more women than men experience migraines, more women than men experience mal de débarquement.

What are the symptoms?

Symptoms of mal de débarquement include the sensation of bobbing, rocking, swaying, swinging, floating and/or tumbling. These may be accompanied by disequilibrium (a vague sense of unsteadiness, imbalance, or tilting), anxiety, difficulty concentrating, and a loss of self-confidence.

This disorder does not include spinning vertigo, vomiting, cold sweat, ear pressure, ear pain, sound sensitivity, tinnitus, hearing loss or distortion, double vision, or bouncing vision.

Symptoms of mal de débarquement usually increase in enclosed spaces and when trying to be motionless, such as when attempting to fall asleep in bed, when stopped in a car at a traffic light, or while sitting still in a classroom, or in front of a computer monitor. Stress or

fatigue can cause the symptoms to become stronger or more noticeable in some people. The symptoms improve or even disappear during constant, steady movement such as experienced while in a moving car.

The experience of mal de débarquement

Persistent mal de débarquement usually begins within hours of stopping the novel movement (e.g., sea-going) and resolves within six to twelve months. There are also reports of it not resolving for years.

Some people with persistent mal de débarquement after a cruise report feeling as if they are still moving with the deck of the ship, even though they know they are not. The information received by the brain from the eyes, ears, and limb pressure sensors no longer agrees with the movement it assumes is still being experienced. This can interfere with the ability to concentrate and can make most facets of life more difficult.

"Mal" comes from the Latin "malum" for evil. Long time sufferers of mal de débarquement might agree that this is an evil disorder.

How is it diagnosed?

Currently there is no specific test to diagnose mal de débarquement. A physician must diagnose it by collecting a thorough history, conducting a physical examination, and then doing tests for other disorders in order to rule out other causes for the symptoms. These tests

usually include hearing, eye movement, and balance tests and may also include magnetic resonance imaging (MRI) of the brain.

For a diagnosis of mal de débarquement to be made there must be a history of a ship voyage or other new movement, the return to a normal environment, and the start of the symptoms of bobbing, rocking, swaying, etc. Symptoms start immediately, not weeks or months later.

Is it possible to experience similar symptoms but not have mal de débarquement?

Other disorders that can account for these same symptoms include but are not limited to endolymphatic hydrops, perilymph fistula, and pseudotumor cerebri. So the possibility always exists that the symptoms being experienced are not caused by mal de débarquement at all, but are caused by a vestibular or other disorder having nothing to do with the cruise (or other novel movement). In this case, if the timing of the onset of symptoms seems linked to a recent cruise, it may be coincidental.

What is the treatment?

At this time, there appears to be no single highly successful treatment approach to mal de débarquement. Individual doctors approach treatment differently. Their treatment is usually based upon successes or failures they have had in the past with other patients.

Standard drugs given for motion sickness (including meclizine, diphenhydramine, and scopolamine patches) seem to be ineffective in stopping or even dulling the symptoms. Some treatments suggested by physicians include walking while watching the horizon, vestibular rehabilitation therapy, diuretics, anti-seizure drugs, antidepressants of the tricyclic family, and benzodiazepines. (Note: when benzodiazepines or antidepressants are stopped, the symptoms can reappear, at least for a while, and seem stronger than they were before the treatment began.¹³ This phenomenon is generally referred to as “rebound” in pharmacology texts.)

Others¹⁰ suggest that if hormonal medications (such as estrogen) are being used, a trial shift in the dose or use might be evaluated. This, of course, is only to be considered upon consultation with each individual’s physician.

Symptom management

Although there is no single established method of symptom management, suggestions offered by individuals with mal de débarquement vary. Some are included here.

- Move the head while stopped at a traffic light.
- Sit still and look ahead for a few minutes prior to leaving the car after a drive.
- After the end of an activity with constant movement (such as a car, train, or boat ride), take a walk while focusing on the horizon.

Why are many doctors and health care professionals unfamiliar with mal de débarquement as a disorder?

- It is difficult to diagnose and treat.
- The disorder falls into a sub-area of otolaryngology called neurotology, and is not well known to physicians outside this branch of medicine.
- In the vast majority of people, mal de débarquement is a short-lived response to travel by boat and other vehicles and is considered to be normal.
- The persistent form affects a relatively small proportion of people.
- Because of its prevalence in women as opposed to men, many health professionals consider it to be a 'female malady.'
- Mal de débarquement is not considered life threatening.

Preventing recurrence

If you have experienced mal de débarquement and your symptoms have finally resolved, avoiding the same activity that caused the initial onset may be helpful in preventing a recurrence. If this activity cannot be avoided, some doctors advise the use of drugs such as Valium or Klonopin during the causative activity in an attempt to prevent the recurrence of symptoms. It is really up to the individual who has had the mal de débarquement to determine if doing the activity again is worth the risk.

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