

## **Motion Sickness & Persistent Motion Sickness (Mal De Debarquement Syndrome (MdDS))**

### **Motion Sickness**

Motion sickness, also called sea sickness, occurs when your brain receives conflicting signals from eyes, inner ears, skin and joints about your state of motion.

The symptoms of motion sickness include dizziness, sweating, nausea, and vomiting.

People who suffer from migraine are more likely to suffer from motion sickness.

### **Prevention**

On a ship: Choose a cabin in the middle of the ship and near the waterline. When on board, go up on deck and focus on the horizon.

In an airplane: Request a window seat and look out the window. A seat over the front edge of the wing is the most preferable spot (the degree of motion is the lowest here). Direct the air vent to blow cool air on your face.

On a train: Always face forward and sit near a window.

In a car: Sit in the front seat; if you are the passenger, look at the scenery in the distance. For some people, driving the vehicle (rather than being a passenger) is an instant remedy.

Do not read or look at your phone in a moving vehicle. If you are prone to motion sickness, reading or looking at your phone is likely to make it worse.

Get plenty of rest. Get a good night's sleep the evening before you travel. Being overtired can make you more susceptible to motion sickness.

Avoid greasy or acidic foods. Avoid heavy, greasy, and acidic foods in the hours before you travel.

Drink plenty of water

Do not drink large amounts of alcohol the evening before you travel. Alcohol speeds up dehydration and generally lowers your body's resistance to motion sickness, if you are prone to it.

Stand if you feel queasy. Stand up, if you can, and look out over the horizon. Despite what you might think, sitting or lying down actually may make you feel worse.

Don't smoke and avoid others who smoke.

Eat dry food. Dry crackers may help settle a queasy stomach.

Use the seat head rest. Lean your head against the back of the seat or head rest when traveling in vehicles with seats to minimize head movements.

Avoid others who have become nauseous with motion sickness. Seeing and smelling others who have motion sickness may cause you to become sick.

### ***Medication and other treatments***

Motion sickness can be treated with over-the-counter and prescription medicines.

*Over-the-counter medicines:* Antihistamines are commonly used both to prevent and treat motion sickness an example being Cinnarizine (Stugeron) 30mg taken 2 hours before travel and then 15mg every 8 hours if required, dose to be taken during journey. The side effect of these medications is drowsiness

*Prescription medicines:* A review suggested the most effective treatment appears to be scopolamine - also known as Hyoscine (<https://www.uspharmacist.com/article/the-pharmacologic-management-of-motion-sickness>).

Scopoderm patches (hyoscine 1.5mg) medicated self adhesive patches taken 5 to 6 hours *before* travel for the control of travel sickness - effective for 72 hours on a patch ( <https://www.doctorfox.co.uk/travel-sickness/scopoderm.html> & <https://www.medicines.org.uk/emc/product/3276>). Scopolamine may create an annoying dry mouth side effect. Certain patients with glaucoma and other health problems should not use this drug.

The above hyperlinks discuss all aspects of this medication including side-effects etc.

*Nonpharmaceutical remedies:* Numerous non-medicine options have been promoted as being helpful in relieving or preventing motion sickness. In most cases, the proof supporting these products is not very good:-

Oral use of ginger or peppermint can sooth the stomach. Ginger, in pills or powder, is available in many herb or health food stores. Eating peppermint is also thought to be generally calming.

Reliefband.com (<https://www.reliefband.com/>) provides a transcutaneous electrical stimulation at the wrist which reduces motion sickness.

### **Persistent Motion Sickness - Mal De Debarquement Syndrome (MdDS)**

This is a prolonged rocking sensation - for a month or longer - that begins immediately following a lengthy exposure after exposure to passive motion, in most cases it is sea travel. It is rare and can be over diagnosed.

MdDS is a complex condition, in that there is a lot of overlap with vestibular migraine and persistent postural perceptual dizziness (PPPD) i.e it is similar to PPPD in that it is central processing disorder of balance. It is often seen as a combination or a transition to a functional dizziness syndrome .

About 80% of MDD sufferers are women, and most of them are middle-aged.

MDD patients are often troubled by migraine.

The symptoms of MDD usually improve with re-exposure to motion.

### ***Treatment of MDD***

Treatment outcomes vary, depending on:

- A vestibular therapist assessment and “buy-in” to vestibular rehabilitation therapy (VRT). There is limited agreement about the role of VRT; some patients can benefit from reducing visual dependency, addressing any visually induced dizziness features, and reassurance to return to activities they are avoiding. Additional PPPD therapy may be useful.
- Patient perception that only the “Dai” treatment approach will work (see below). This is a novel approach by Dr Dai (Dai M, Cohen B, Smouha E, Cho C. Re-adaptation of the vestibulo-ocular reflex relieves the Mal de Debarquement Syndrome. *Front Neurol.* (2014) 5:124. doi: 10.3389/fneur.2014.00124) where they have taken a random finding from

animals and applied it to humans. They claim that the VOR can be reset with side-to-side head movements to match the velocity of perceived motion, watching B&W lines move in a specific direction. It is not something that vestibular physiotherapists have access to as a set up, but can be modified if suitable.

- Behavioural therapy
- Balance training, relaxation (Joga, Tai Chi etc).
- Any vestibular migraine being medically managed and acknowledged
- Addressing any anxiety/depression with serotonine-reuptake-blockers (mirtazapine, sertraline) depending on the personality and accompanying symptoms .
- If there is an underlying primary vestibulopathy then treat it as that condition initially.
- The common vestibular suppressants are nearly always ineffective.

Last updated: 15.07.2022