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Motion sickness (Travel sickness)

Motion sickness (travel sickness) is common, especially in children. It is caused by repeated unusual movements during travelling, which send strong (sometimes confusing) signals to the balance and position sensors in the brain.

What causes motion sickness?

Motion sickness is a normal response to repeated movements, such as going over bumps or around in a circle, send lots of messages to your brain. If you are inside a vehicle, particularly if you are focused on things that are inside the vehicle with you then the signals that your eyes send to the brain may tell it that your position is not changing, whilst your balance mechanisms say otherwise.

Your balance mechanisms in your inner ears sense different signals to those that your eyes are seeing which then sends your brain mixed, confusing messages. This confusion between messages then causes people to experience motion sickness.

Is motion sickness normal?

Motion sickness is a normal response that anyone can have when experiencing real or perceived motion. Although all people can develop motion sickness if exposed to sufficiently intense motion, some people are rarely affected while other people are more susceptible and have to deal with motion sickness very often.

Triggers for motion sickness

Motion sickness can also be triggered by anxiety or strong smells, such as food or petrol. Sometimes trying to read a book or a map can trigger motion sickness. Both in children and adults, playing computer games can sometimes cause motion sickness to occur.

Motion sickness is more common in children and also in women. Fortunately, many children grow out of having motion sickness. It is not known why some people develop motion sickness more than others. Symptoms can develop in cars, trains, planes and boats and on amusement park rides, etc.

How long does motion sickness last?

Symptoms typically go when the journey is over; however, not always. In some people they last a few hours, or even days, after the journey ends.

Motion sickness symptoms

There are various symptoms of motion sickness including::

- Feeling sick (nausea and vomiting).
- Sweating and cold sweats.
- Increase in saliva.
- Headaches.
- Feeling cold and going pale.
- Feeling weak.

How to stop motion sickness

Some general tips to avoid motion sickness include the following.

Prepare for your journey

- Don't eat a heavy meal before travelling. Light, carbohydrate-based food like cereals an hour or two before you travel is best.
- On long journeys, try breaking the journey to have some fresh air, drink some cold water and, if possible, take a short walk.

For more in-depth advice on travelling generally, see the separate leaflets called Health Advice for Travel Abroad, Travelling to Remote Locations, Ears and Flying (Aeroplane Ear), Jet Lag and Altitude Sickness.

Plan where you sit

- Keep motion to a minimum. For example, sit in the front seat of a car, over the wing of a plane, or on deck in the middle of a boat.
- On a boat, stay on deck and avoid the cafeteria or sitting where your can smell the engines.

Breathe fresh air

- Breathe fresh air if possible. For example, open a car window.
- Avoid strong smells, particularly petrol and diesel fumes. This may mean closing the window and turning on the air conditioning, or avoiding the engine area in a boat.

Use your eyes and ears differently

- Close your eyes (and keep them closed for the whole journey). This
 reduces 'positional' signals from your eyes to your brain and reduces
 the confusion.
- Don't try to read.
- Try listening to an audio book with your eyes closed. There is some
 evidence that distracting your brain with audio signals can reduce
 your sensitivity to the motion signals.
- Try to sleep this works mainly because your eyes are closed, but it is possible that your brain is able to ignore some motion signals when you are asleep.
- Do not read or watch a film.
- It is advisable not to watch moving objects such as waves or other cars. Don't look at things your brain expects to stay still, like a book inside the car. Instead, look ahead, a little above the horizon, at a fixed place.
- If you are the driver you are less likely to feel motion sickness. This is
 probably because you are constantly focused on the road ahead
 and attuned to the movements that you expect the vehicle to make.
 If you are not, or can't be, the driver, sitting in the front and watching
 what the driver is watching can be helpful.

Treat your tummy gently

- Avoid heavy meals and do not drink alcohol before and during travelling. It may also be worth avoiding spicy or fatty food.
- Try to 'tame your tummy' with sips of a cold water or a sweet, fizzy drink. Cola or ginger ale are recommended.

Try alternative treatments

- Sea-Bands® are acupressure bands that you wear on your wrists to put pressure on acupressure points that Chinese medicine suggests affects motion sickness. Some people find that they are effective.
- Homeopathic medicines seem to help some people, and will not make you drowsy. The usual homeopathic remedy is called 'nux vom'.
 Follow the instructions on the packet.

Natural treatments for motion sickness

All the techniques above which aim to prevent motion sickness will also help reduce it once it has begun. Other techniques, which are useful on their own to treat motion sickness but can also be used with medicines if required, are:

- Breathe deeply and slowly and, while focusing on your breathing, listening to music. This has been proved to be effective in clinical trials.
- Ginger can improve motion sickness in some people (as a biscuit or sweet, or in a drink).

Motion sickness medicines

There are several motion sickness medicines available which can reduce, or prevent, symptoms of motion sickness. You can buy them from pharmacies or, in some cases, get them on prescription. They work by interfering with the nerve signals described above.

Medicines are best taken before the journey. They may still help even if you take them after symptoms have begun, although once you feel sick you won't absorb medicines from the stomach very well. So, at this point, tablets that you put against your gums, or skin patches, are more likely to be effective.

Hyoscine

Hyoscine is usually the most effective medicine for motion sickness. It is also known as scopolamine. It works by preventing the confusing nerve messages going to your brain.

There are several brands of medicines which contain hyoscine - they also come in a soluble form for children. You should take a dose 30-60 minutes before a journey; the effect can last up to 72 hours. Hyoscine comes as a patch for people aged 10 years or over. (This is only available on prescription - see below.) Side-effects of hyoscine include dry mouth, drowsiness and blurred vision.

Side-effects of motion sickness medicines

Some medicines used for motion sickness may cause drowsiness. Some people are extremely sensitive to this and may find that they are so drowsy that they can't function properly at all. For others the effects may be milder but can still impair your reactions and alertness. It is therefore advisable not to drive and not to operate heavy machinery if you have taken them. In addition, some medicines may interfere with alcohol or other medication; your doctor or the pharmacist can advise you about this.

Antihistamines

Antihistamines can also be useful, although they are not quite as effective as hyoscine. However, they usually cause fewer side-effects. Several types of antihistamine are sold for motion sickness. All can cause drowsiness, although some are more prone to cause it than others; for example, promethazine, which may be of use for young children on long journeys, particularly tends to cause drowsiness. Older children or adults may prefer one that is less likely to cause drowsiness - for example, cinnarizine or cyclizine.

Remember, if you give children medicines which cause drowsiness they can sometimes be irritable when the medicines wear off.

See the separate article called How to manage motion sickness.

What can a doctor prescribe for motion sickness?

There are a number of anti-sickness medicines which can only be prescribed by your doctor. Not all of them always work well for motion sickness, and finding something that works may be a case of trial and error. All of them work best taken up to an hour before your journey, and work less well if used when you already feel sick. See also the separate leaflet called Nausea (Causes, Symptoms, and Treatment) for more detailed information about these medicines.

Hyoscine patch

Hyoscine, or scopolamine, patches are suitable for adults and for children over 10 years old. The medicine is absorbed through your skin, although this method of medicine delivery is slow so the patch works best if applied well before your journey.

You should stick the patch on to the skin behind the ear 5-6 hours before travelling (often this will mean late on the previous night) and remove it at the end of the journey.

Prochlorperazine

Prochlorperazine is a prescription-only medicine which works by changing the actions of the chemicals that control the tendency to be sick (vomit), in your brain. One form of prochlorperazine is Buccastem®, which is absorbed through your gums and does not need to be swallowed. Buccastem® tastes rather bitter but it can be effective for sickness when you are already feeling sick, as it doesn't have to be absorbed by the stomach.

Metoclopramide

Metoclopramide is a tablet used to speed up the emptying of your tummy. Slow emptying of the tummy is something that happens when you develop nausea and vomiting, so metoclopramide can help prevent this. It prevents nausea and vomiting quite effectively in some people. It can occasionally have unpleasant side-effects, particularly in children (in whom it is not recommended). Metoclopramide is often helpful for those who tend to have gastric reflux, those who have slow tummy emptying because of previous surgery, and those who have type I diabetes. Your GP will advise whether metoclopramide is suitable for you.

Domperidone

Domperidone, like metoclopramide, is sometimes used for sickness caused by slow tummy emptying. It is not usually recommended for motion sickness but is occasionally used if other treatments don't help.

Domperidone is not a legal medicine in some countries, including the USA.

Ondansetron

Ondansetron is a powerful antisickness medicine which is most commonly used for sickness caused by chemotherapy, and occasionally used for morning sickness in pregnancy. It is not usually effective for motion sickness. This, and its relatively high cost means that it is not prescribed for motion sickness alone. However, for those undergoing chemotherapy, and for those who have morning sickness aggravated by travel, ondansetron may be helpful.

What should I do if I'm actually sick?

If you're actually sick you may find that this relieves your symptoms a little, although not always for very long. If you've been sick:

- Try a cool flannel on your forehead, try to get fresh air on your face and do your best to find a way to rinse your mouth to get rid of the taste.
- Don't drink anything for ten to twenty minutes (or it may come straight back), although (very) tiny sips of very cold water, coke or ginger ale may help.
- After this, go back to taking all the prevention measures above.
- Once you reach your destination you may continue to feel unwell.
 Sleep if you can, sip cold iced water, and when you feel ready try some small carbohydrate snacks. Avoid watching TV (more moving objects to watch!) until you feel a little better.

What is mal de debarquement syndrome?

The sensation called 'mal de debarquement' (French for sickness on disembarking) refers to the sensation you sometimes get after travel on a boat, train or plane, when you feel for a while as though the ground is rocking beneath your feet. It is probably caused by the overstimulation of the balance organs during your journey. It usually lasts only an hour or two, but in some people it can last for several days, particularly after a long sea journey. It does not usually require any treatment.

Persistent mal de debarquement syndrome is an uncommon condition in which these symptoms may persist for months or years.

Dr Mary Lowth is an author or the original author of this leaflet.

Further reading

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