

# Motion Sickness

## What is Motion Sickness?

At least half of children will experience symptoms of motion sickness during their childhood. In most children, it is simply a minor nuisance, but some children find it incapacitating. It is thought to be due to a sensory conflict between our visual and our balance systems, whereby the balance (or vestibular) system believes the head to be stable while the visual system believes the head to be moving. In some children and adults, this conflict leads to symptoms which might include **nausea, vomiting, increased blood pressure, cold sweating, pallor**, and or **ataxia** (loss of balance).

## Who Suffers From Motion Sickness?

Motion sickness is most common between ages of 4-10 years, and only rarely is seen in infants. Girls are more likely than boys to suffer from this condition. Younger children are more likely to experience ataxia, or loss of balance, as a symptom of motion sickness, while older children are more likely to suffer nausea and/or vomiting.

## Are There Other Factors That Make Motion Sickness More Likely?

Consumption of dairy products and foods high in sodium and calories, just before car rides or boat trips seem to make motion sickness more likely. Ear infections and exposure to cigarette smoke also increase motion sickness. Teenage girls on oral contraceptives (birth control pills) have a higher chance of experiencing motion sickness.

## Are There Treatments For Motion Sickness?

Yes, but most of them have side effects, too, so then the benefit must outweigh the side effect. There is also an "herbal" treatment that may be effective as well.

- **Dimenhydrinate (Dramamine)**, which is widely used and effective, though it may cause significant drowsiness in some children. The dose is 1.25 milligrams per kilogram per dose, up to 4 times a day, best given 30 minutes prior to travel. Contact your physician's office for help determining the correct dose for your child's current weight.
- **Dephenhydramine (Benadryl)**, which is also widely used, although it is even more likely than Dramamine to cause drowsiness and sedation. The dose is 1 milligram per kilogram up to 4 times a day, and must be given 1-2 hours before traveling. Again, contract your physician's office for help determining the child's correct dose.
- **Scopalamine (Hyoscine, Transderm Scop)**, which is only for children 12 years and older. It comes in a 12.5 mg skin disc. Only one disc may be used every 72 hours. It is applied behind the ear 4 hours prior to travel.
- **Ginger Root**, which is available in capsules, powder, candy or tea, has been evaluated as beneficial for the prevention of motion sickness. Be aware that most ginger ales do not truly contain ginger! Ginger root should be taken 1 hour before travel, giving 1000 milligrams if age 12 years or older, 500 milligrams for ages 6-12 years, and 250 milligrams for ages 2-6 years. No more than once daily dosing is recommended.

## **What Else Can We Do To Prevent Motion Sickness?**

- Eat light meal at least 3 hours before travel
- Avoid dairy products for at least 3 hours before travel
- If older than age 13 years, sit in the front seat rather than the rear
- Focus on stable horizon while moving...avoid reading and playing hand held video games
- Use booster seat if needed to improve your child's ability to focus ahead of the vehicle (i.e. to see better out through the windshield)
- Increase ventilation by rolling down the window to allow cool fresh air in (if weather permits)
- When traveling in a ship or on a train, encourage your child to lie on their back