

Spin Control: Heave-Ho, Motion Sickness

By MELANIE D.G. KAPLAN
Special to The Washington Post

I have turned green riding over giant sand dunes in Qatar, become queasy kayaking between the Virgin Islands and puked on a flight to Peru. There are few places I can travel, including across the dance floor via pirouette, where I don't risk feeling some symptoms of motion sickness.

I'm in good company. Many people suffer from motion sickness at some point in their lives, and according to the Centers for Disease Control and Prevention, all individuals will succumb given sufficient stimulus: the roughest seas, the sharpest turns and the bumpiest flights. Yet the inner ear — the root of sea-, car- and air-sickness — remains a mystery to most of us. So after my humiliating Peru flight last year, I set out to learn how — short of surgically removing my vestibular system, the body's balance center — to prevent a recurrence.

I didn't get far, and Richard Jennings

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Feel Lunch Coming Up? Some Tips on Keeping It Down.

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explained why.

"People have been getting motion sickness since they were riding on camels," said Jennings, the director of the University of Texas Medical Branch's aerospace medicine program. "And we don't have many more answers today than we did then. Any time there are 20 different remedies, it probably means none of them are that great."

When our bodies experience motion sickness, they are—oddly enough—responding the way they would to poison (i.e., back when humans were eating wild berries, regurgitating the toxic ones helped us survive). The motion sensors in our inner ear perceive that something's out of whack (as they do when vestibular information and visual information are in conflict), so they send out an APB for the body to remove the "poison."

The fact that experts have linked the symptoms of motion sickness and those of poisoning is hardly surprising to me. Motion sickness can cause such intense discomfort that many sufferers would rather face death than prolong the agony. And that's no way to spend a vacation.

So whether you're bobbing in the water, zigzagging on land or cruising at 33,000 feet, here are some ways to make your next journey less, well, unsettling.

By Sea

There is plenty of evidence that we can develop a tolerance to motion sickness. Ballerinas adapt to spinning, and acrobatic pilots get used to looping. "Deadliest Catch" crab boat captain Keith Colburn has practically cured himself of symptoms by spending decades in some of the roughest waters on the planet.

Remember, if you're vulnerable to motion sickness, no reading, no watching videos, no fiddling on the iPhone.

"I can't remember the last time I threw up," said Colburn, who leads his crew through the Bering Sea, where swells can reach 15 to 20 feet for a month at a time and 30 to 40 feet in a storm. "My body's just used to being on the ocean. I'm one of the lucky ones."

Colburn said he first suffered seasickness as an 18-year-old sailing off the coast of California, and it lasted for five days. When he began fishing off Alaska, he battled symptoms like everyone else.

"You start to feel a little wrong, then pretty soon you realize you're feeling nauseous," Colburn said. "Before you know it, your forehead starts to perspire uncontrollably, then your mouth waters uncontrollably, and then you have to find somewhere safe to let a big mess go, because there's no stopping what's going to happen next."

Each year, Colburn became less fearful of seasickness, and by his third year, he felt immune. He said that many veteran fishermen still battle sickness for the first few days of a trip, but he attributes some of that to phobias, anxieties and negative conditioning. "Some guys get themselves all worked up. The more you think about it, the more violent the reaction is."

Colburn said that a whiff of bacon grease from the galley, combined with diesel fumes and an enclosed space, can be deadly at the start of a trip. His remedy for a pale-looking crew member is fresh air, a view of the horizon and vigilant water consumption, especially if the crewman is vomiting. He also stocks the boat with pilot bread, which, like Colonial-era hardtack, is a thick cracker that doesn't go stale and tends to settle your stomach.

Seas are significantly calmer on cruise liners, especially if you select a new ship with stabilizers and more than 2,000 passengers. The rule of thumb for cruise vessels: Bigger is better.

If you feel prone to seasickness, Royal Caribbean vice president and global chief medical officer Art Diskin suggests booking a cabin that's in the center of a ship and a couple of decks above the water line. If you're not vomiting, have food (preferably bland and low-fat) in your stomach, and skip the poolside Tom Collins: Alcohol thins the fluid in your inner ear's semicircular canal and exacerbates the symptoms of motion sickness.

Diskin and other experts said the scopolamine patch is effective at reducing motion sickness, but only if passengers follow the directions explicitly and are prepared for possible side effects, such as dry mouth, drowsiness and blurred vision. There are over-the-counter medications, such as Dramamine, most of which make

you drowsy. Some people swear by eating ginger or wearing pressure-point wristbands, but I've experienced no relief from them, and there is little evidence that they defend us from that wretched feeling of being poisoned.

By Land

For the first couple of years of their lives, children are immune to motion sickness. But after that, they are the most vulnerable age group. I must have been even more prone than most kids, because I have memories of riding at the front of the bus (with my teacher) on field trips. Turns out I should still be doing that. On my roller-coaster dune ride in Doha, Qatar, I started out in the back of an SUV. It wasn't long before I started feeling clammy and nauseated.

Ken Money, president of the National Space Society, who studied the inner ear for 50 years, said that if you're in a car, the best position is behind the wheel. "Not

only are you focused on the horizon, but you can anticipate the motion," he said. "When the vestibular system reports movement, [the brain thinks,] 'Okay, this is what I should be feeling.'" (Same goes for piloting a ship or a plane: If you're in a position to take the helm, do so. I recently tested this theory in a recreational boat on the Chesapeake Bay and in a turboprop simulator. Both times, I was focused on the horizon, the route and the controls, which left my brain less space to think about feeling ill. It worked wonders.)

If you're not driving, grab the shotgun seat, where you can still lock into the horizon, rather than sitting in the back, watching the world whiz by in a blur. Remember, if you're vulnerable, no reading, no watching videos, no fiddling on the iPhone.

By Air

My flight to Peru was especially turbulent. I was feeling borderline nauseated when I made the reck-

less decision to start reading, hoping it would take my mind off getting sick. But I was reading "The Pilot's Wife" by Anita Shreve and happened upon the scene in which the wife vomits on a flight. No need to describe what ensued.

I felt better after talking to Henry Porter, head of neurology at the Naval Aerospace Medical Institute in Pensacola, Fla. He runs the Self-Paced Airsickness Desensitization program, or SPAD, which helps the 20 or so Navy pilots a year who still struggle with motion sickness after taking medication. Porter confirmed that the brain can play a significant role in airsickness.

"We've had guys walking out to the airplane start feeling motion sickness," Porter said. "They smell the jet fuel, and it's a trigger. Those are the ones that are difficult to recondition."

But the Navy does recondition pilots, with an 80 percent success rate. The pilots submit themselves to motion sickness triggers twice

a day for an hour each time, for as long as eight weeks. They go through biofeedback training that teaches them how to relax and control such things as heart rate and breathing. Then, it's on to the spinning chair, where the pilot gradually increases rotation speed to build tolerance.

Spinning isn't the sole nausea culprit, Porter said. It's moving your head (up, down, side to side) as you spin, fully confusing your inner ear. The faster you go, the worse it is. "When you get to 20 rpm and you're not sick," he said, "you can leave."

Lesson learned: When you're feeling queasy on a flight, keep your head as still as possible. Turning to the side or nodding as the aircraft moves at high speeds will further aggravate your vestibular system. Porter also suggested sitting toward the front of the plane, breathing deeply and adjusting the overhead vent so the air cools you. Another tip: Try not to be around others who are sick,

and don't think about getting sick. Once you have barfed on the brain, you're done for.

The goal of the SPAD program — and a similar three-day program at Pennsylvania's National AeroSpace Training and Research Center, which is open to the public — is to condition your brain and raise the threshold at which you start feeling sick. Which is not unlike my personal goal: to never again have to reach for that bag in the seat pocket in front of me. I've concluded that the best way to do that is to get my pilot's license, so that I can keep my eyes on the horizon and my brain on the task at hand.

In the meantime, I can be found training in my makeshift SPAD center, breathing deeply and spinning very, very slowly in my office chair.

Melanie D.G. Kaplan is a Washington writer. Last month she flew in two helicopters and a turboprop without incident.

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