No matter how much this little fella eats, he won't lose his lunch.

You probably try not to think about barfing too often, but some researchers at the University of Pittsburgh think about it all the time. They are interested in the action of vomiting, which is a pretty complicated maneuver that requires a lot of muscles and nerves working together in a coordinated process. As it turns out, evidence suggests that rodents don’t throw up. Ever. Not if they eat something poisonous; not if you give them medicine that causes vomiting; not even if you stimulate the nerves that cause emesis (a fancy medical term for puking) in humans and other animals. They simply cannot toss their cookies—no matter how many they eat. If we knew more about why some animals throw up and some don’t, we might be able to help people who suffer from nausea because of dizziness, motion sickness, drugs that put people to “sleep” for surgery, cancer-fighting medicines known as chemotherapy, or pregnancy.

Vomiting is controlled by a group of nerve cells at the bottom of the brain (in its “stem”) that mice and other rodents don’t have. Now researchers are looking for a way to stop those nerve cells from revving up the puke process in the first place; they are imagining a barf-free future.

—Jenifer Lienau Thompson

Many thanks to Pitt School of Medicine prof Charles Horn, a PhD, for telling us more than we ever wanted to know about losing our lunch. For more kid-friendly science, visit How Science Works at www.howscienceworks.pitt.edu