YOUR HEALTH (FOR GROWN-UPS)

Healthy Advice: Columnist Aaron Toro gets down to relieving lower back pain. **Page 2C.**

A NOTE TO ADULT READERS

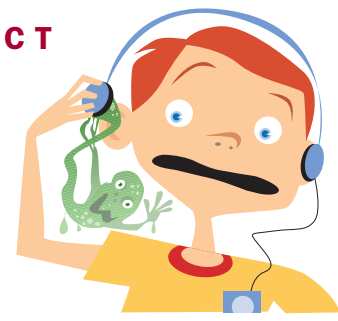
Just like children, Your Health for Kids is growing. To accommodate our more kid-friendly page, we've moved the Health Calendar to Page 2C. We hope the full-page for kids will further our efforts to inspire young readers. Of course, we didn't forget our adult readers. We moved Inside – the Your Health index – next to the Note to Parents, and we added the Your Health banner to Page 2C to better define the inside of the section as the Your Health "for Grown-ups." Despite the changes, Your Health for Kids is better when read by kids and grown-ups together – and that will never change.

Jim and Stacy

Kid's HEALTH FACT

More than music to the ears

Wearing headphones for just one hour could increase the bacteria in your ear 700 times, according to the National Institutes of Health.



The Monroe Evening News

Your Health

A kid's guide to staying healthy, fit and safe

section C
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for kids

Answer: Because it was feeling crumby.

Question: Doctor, how do I stop my nose from running?!

Answer: Stick your foot out and trip it up! ■ **Question:** Why did the computer go to the doctor? **Answer:** It had a virus. ■ **Question:** How did the patient get to the hospital so fast? **Answer:** He flu.

Question: What can you catch, but cannot throw? **Answer:** A cold. ■ **Question:** Why did the germ cross the microscope? **Answer:** To get to the other slide. ■ **Question:** Why did the cookie go to the doctor?

Just a germ

Tiny microbes play big roles in health

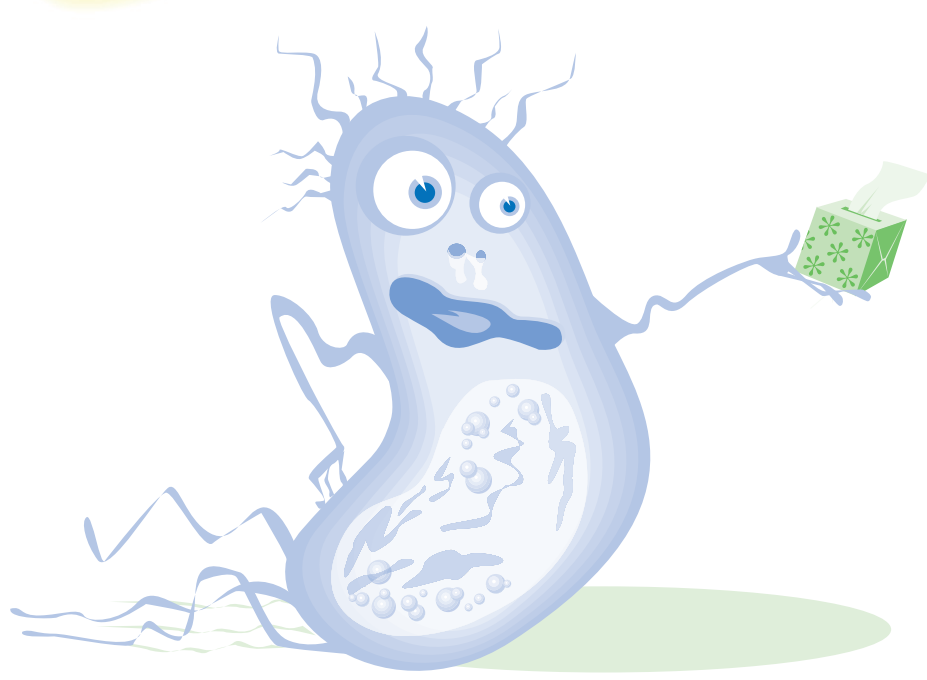
You cough. You sneeze. You sweat.

Your throat is sore. Your nose is running. You shiver from the chills.

There's no doubt about it: You have a microbe.

Yes, your fever and upset stomach, your aching muscles and your sleepy days are all caused by something so small you can't see it with the naked eye – and you need a pretty powerful microscope to even catch a glimpse.

A microbe – the tiniest of all organisms – is a general name for things like bacteria and viruses, the germs that make us say ..... **AHHHHHHCHOO!**



WHAT IS A BACTERIUM?

Bacteria (the word for more than one bacterium) are some of the oldest forms of life on Earth and can be found everywhere.

They are made of a single cell that contains genetic material called DNA. They also have ribosomes, a copy machine for their DNA. They protect their insides with a cell membrane and a cell wall, but not much else.

Bacteria, like viruses, can cause disease, but not all bacteria are bad. In fact, some bacteria are necessary for life. E. coli lives inside you, helping you digest your food. Other bacteria turn milk into yogurt and cheese, help make antibiotics and clean waste from water.

When a bacterium does cause an infection, your body reacts with its usual defense mechanisms: fever, swollen glands and a lot of antibodies. Sometimes antibiotics are given to help your body.

ebola, bubonic plague, influenza, polio, chicken pox, mumps, measles, typhoid

IT'S HOW SMALL?

How big are viruses and bacteria? It might be better to ask, "how small?"

- The head of a pin is 2 millimeters across. About 100,000 rhinoviruses (20 nanometers each) packed protein shell to protein shell or about 100 E. coli bacteria (2 micrometers each) packed cell wall to cell wall could fit on the head of the pin.
- The American Society for Microbiology suggests imagining a virus as a baseball. If a virus is a baseball, a bacterium would be the pitcher's mound and one human cell would be the entire baseball park.

WHAT IS A VIRUS?

A virus is a tiny microbe made of a protein shell and some genetic material – either DNA or RNA or both. It's a pretty simple germ.

But it's this tiny, basic "bug" that causes everything from the flu to colds to Ebola, a disease that causes bleeding. In fact, a virus can cause any number of conditions when it infects a cell.

Viruses infect cells for one reason: to make more viruses. Viruses need living cells to make more of themselves. They use the living cell to copy the genetic information kept inside the virus. That information forms more viruses. The living cell is essentially a virus factory. Sometimes they destroy the factory when they're done with it – the cell bursts and the viruses move on to the next cell. When the virus uses the "factories" and destroys them, that's when infection occurs.

That's about the time fever, coughing and sneezing may start – all to help fight the infection. The fever is one way your body fights infection by making it uncomfortable for the virus to be there. When you cough and sneeze your body is trying to rid itself of the virus.

Some viruses are prevented with vaccine shots that make your body get ready to fight the virus before infection. But your body is in charge of getting rid of most viruses – sometimes aided by sleep and a bowl of soup.

Source: American Society for Microbiology

This page was made by health editor Stacy Kess, who's favorite bacterium is E. coli, and art and design editor Jim Dombrowski, who has never met a germ he likes.