

## 7 Everyday Biohazards

by Jennifer Everett, *Men's Health*; Photograph by David Arky

Men's Health

Even if [avian flu](#) never enters America, it's already in our heads. See, we checked with the Centers for Disease Control and Prevention, and as of right now, the only verifiable pandemic is fear. But that's the thing with bugs, whether they're cutting-board bacteria or ultravirulent viruses: They are the ultimate invisible enemy, often infecting us with anxiety before they've triggered a single immune response.

The key to staying safe — and sane — in a world crawling with germs is knowing which ones are worth worrying about. OI' H5N1? Not unless you like your chicken so fresh that you raise your own. Bubonic plague? Only if you reside in New Mexico and play with prairie dogs. On the other hand, do you own a cellphone? Take a shower every day? If so, then we have some high-priority pathogens we'd like you to meet — and, with our help, defeat.

### THE CELLPHONE

What's Lurking: Methicillin-resistant *Staphylococcus aureus* (MRSA)

Think of MRSA as staph on steroids — it's resistant to most antibiotics and can be deadly if it enters the bloodstream. And even though MRSA usually hides in hospitals, at least 12 percent of the infections in 2005 occurred in the general community, often inside locker rooms. Another hot zone: cellphones.

When University of Arizona researchers tested 25 cellphones, 20 percent came up positive for MRSA. "When was the last time you cleaned your cellphone? I'm willing to bet never," says Charles Gerba, Ph.D., the study's lead researcher and coauthor of *The Germ Freak's Guide to Outwitting Cold and Flu*. "These things are very germy, especially the keypads and mouthpieces." Picture it: Every time you dial a number or send a text message, you're transferring the germs on your hands to your phone and then straight to your mouth.

**How to beat it:** Sanitize your cell once a week with Clorox disinfecting wipes (or any of the supermarket-brand clones). "The wipes won't get into the internal parts of the phone and damage it the way a spray might," says Gerba. If you want more peace of mind, consider Motorola's new i870 cellphone (\$300 with a 2-year Nextel contract). The i870 comes treated with AgION Antimicrobial, a very fine ceramic powder coating that contains silver ions, the same substance that's woven into some gym apparel to help inhibit the growth of bacteria.

### THE SHOWER

What's Lurking: *Methylobacter* and *Sphingomonas*

Germs thrive in warm, wet environments, which is why they like showering with you. When Norman Pace, Ph.D., a professor of molecular biology at the University of Colorado at Boulder, tested five plastic shower curtains — including his own — he discovered millions of microbes lining every square inch, with 80 percent being either *Methylobacter* or *Sphingomonas*. What makes this finding worrisome is that studies of indoor pools show that both bugs can form an aerosol and rise into the air. "There's no doubt the same phenomenon occurs in the shower, and thus we're breathing in these potentially harmful bacteria," says Pace, though exactly how harmful is unclear. "We know people get sick for reasons we can't put our finger on. This could be one of them."

**How to beat them:** You could hold your breath while you lather up, or you could simply make your shower less inviting for infectious agents. For starters, pull the curtain all the way closed after you're finished. This will help prevent bacteria from thriving inside the plastic folds. Or, better yet, opt for a fabric shower curtain and an all-metal showerhead. "These types of organisms feed on the organic compounds that form on plastic," says Pace. They also like to gorge on skin cells and other organic material that sloughs off in the shower, so if you go with a cloth curtain, toss it in the washing machine once a month, using the hottest water the fabric can handle.

### HOSPITALS

What's lurking: *Clostridium difficile*

Also known as C. diff, this bacteria has been causing diarrhea in hospitals for decades. Ironically, the bug remains dormant inside healthy people until they begin popping certain antibiotics, which eliminate beneficial bacteria that keep C. diff in check. But, as bad as it is to have the runs while relegated to a bedpan, there's a greater danger: Last winter, two studies in the *New England Journal of Medicine* identified a more virulent variation of C. diff. In an accompanying editorial, John G. Bartlett, M.D., chief of infectious diseases at Johns Hopkins University, notes that "this C. difficile strain produces 16 to 23 times more toxins."

**How to beat it:** If you're going to be laid up in the hospital for more than a day, make sure your menu includes yogurt that contains "live" or "active" cultures. You'll be ingesting *L. acidophilus*, one of those good bacteria that can beat C. diff but is killed off by antibiotics. "It's an amazing thing. The number of cases of C. diff has dropped dramatically since we started serving yogurt," says Jimmy McDaniel, M.D., a staff physician at Baxter Regional Medical Center, in Arkansas. "Take a teaspoon morning, noon, and night, just as you would regular medicine." Try our favorite brand of live-culture yogurt: Stonyfield Farms Organic Nonfat, laced with *L. acidophilus* and several other microbial MVPs.

## AIRPLANES

**What's lurking:** Norovirus

Most cruises are all-you-can-eat . . . and all-you-can-expel, if Norovirus is on board. What most travelers don't realize, however, is that this bug can also hijack airplanes. A recent CDC study of a flight from London to Philadelphia shows that 9 percent of the passengers and more than half of the crew were stricken with diarrhea and/or vomiting within 18 to 60 hours of the flight.

That norovirus could infect so many in so short a time doesn't surprise Mark Gendreau, M.D., an emergency-medicine specialist who studies aircraft infectious disease for the Lahey Clinic, in Burlington, Massachusetts. "When we look at how contagious a disease is, we calculate how many microorganisms of that species are required — from less than one to 100,000 — to produce an infection," he explains. "Norovirus has a dose of 0.6, which means a single bacterium can produce a very serious outbreak."

**How to beat it:** Assume that the flight attendants are infected. Because they interact with everyone on the plane — and on any other flights they've been on that day — the attendants are the most likely people to contract and transmit norovirus. So if they hand you a beverage, drink it with a straw. And if they serve you a prepackaged meal, sanitize your hands after opening it.

Not packing Purell? Soap and water is fine, but avoid whichever restroom the flight attendants are using. Of course, you could escape norovirus only to catch a cold, especially if someone's hacking in your airspace. Dr. Gendreau's defense: "Typically, I'll turn the gasper [the overhead air vent] on at the lowest setting possible and aim it straight down so I don't feel the current," he says. "This circulates clean air without drawing germs toward you."

## GOLF COURSES

**What's lurking:** West Nile virus

The water hazard at your golf course is also a West Nile hazard; it's where mosquitoes that carry the virus buzz around and breed. And while West Nile fever typically affects older, immune-compromised individuals, a newly identified condition called West Nile poliomyelitis can hit healthy adults in their 30s and 40s. "It's a very serious neuroinvasive disease that attacks the cells in the spinal cord that are responsible for motor strength and activity," says Taylor Harrison, M.D., a professor of neurology at Emory University. "Some people regain movement of their limbs; others don't recover as well."

**How to beat it:** Simple: Steer clear of the drink. Also, "if the course is wet, it's a good idea to stay off the golf-cart path," says Gilbert Waldbauer, Ph.D., a professor emeritus of entomology at the University of Illinois and the author of *A Walk around the Pond: Insects in and over the Water*. "The puddles that form in the tracks are filled with stagnant water where larvae develop."

He also suggests a midmorning tee time: "They're out in full force at dusk and dawn." To further shield yourself from skeeters, wear Buzz Off pants and shirts, apparel that's been treated with an EPA-approved insect repellent called permethrin. Both Tommy Hilfiger Golf ([tommygolf.com](http://tommygolf.com)) and Oxford Golf ([oxfordgolf.com](http://oxfordgolf.com)) make Buzz Off duds for duffers.

## THE BEDROOM

**What's lurking:** Chlamydia trachomatis

Chlamydia is the stealth STD — a woman can carry the bacteria without symptoms for several years, which means your partner could pass it on to you, even if you're currently monogamous. And once a guy gets chlamydia, he's at risk of developing nongonococcal urethritis (NGU), a bacterial infection of the urethra, says H. Hunter Handsfield, M.D., a clinical professor of medicine at the University of Washington Center for AIDS and STD.

NGU is one of the most common reasons men find themselves sitting in an STD clinic. Or standing, since NGU may cause dull testicular pain as well as cloudy discharge and frequent, painful urination. Left untreated, it can lead to infertility.

**How to beat it:** Either commit to wearing condoms or ask that your wife or girlfriend be tested for chlamydia. If you opt for the latter, tell her you'll be tested, too; it's possible for someone who's been cured of chlamydia to be reinfected by their partner.

Think you may already have NGU? See your doctor — and take this article along. "Although NGU is very common, not all doctors are as insightful about it as they could be," says Dr. Handsfield, explaining that you'll often get faster results at an STD clinic. "Most men with NGU will be diagnosed and given a prescription on the spot."

Antibiotics such as azithromycin and tetracycline have been shown to be effective 90 percent of the time.

*Provided by Men's Health*

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