HEALTH & WELLNESS

Calling All Germs
Cellphones Are Great for Sharing Photos—and Bacteria; Cleaning May Harm Screens

By CAROLINE PORTER
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When you combine a cellphone’s proximity to your ears, nose and mouth with its bacteria-loving warmth, the result can be harmful to your health. This hazard, says Jeffrey Cain, the president of the American Academy of Family Physicians and chief of family medicine at Children’s Hospital Colorado, often goes unnoticed. “Some things we think are personal are actually more public than we imagine.” Bacteria and other infectious agents on a phone can cause flu, pinkeye or diarrhea, says Dr. Cain.

For people who want to keep a clean touch screen, there is a disconnect between what doctors and medical researchers advise and what device makers suggest for phone sanitizing.

While products are marketed specifically for mobile-phone cleaning, they can sometimes damage the phone’s screen coating or fail to remove 100% of the germs.

Even though computers, keys, pens and landline phones can harbor germs, many people’s cellphones have become extra appendages—never far from the pillow, health club treadmill or restaurant table.

“We’re feeding the little creatures,” says Michael Schmidt, a professor and vice chairman of microbiology and immunology at the Medical University of South Carolina. “We’ve all seen that greasy smear [on the touch screen]. Where there is grease, there are bugs.”

A lab tested eight randomly selected phones from a Chicago office for this article. The phones showed no signs of E. coli or staphylococci bacteria. But all
phones showed
abnormally high
numbers of coliforms,
a bacteria indicating
fecal contamination.
Of the eight phones
tested by HML Labs of
Muncie, Ind., there
were between about
2,700 and 4,200 units
of coliform bacteria.
In drinking water, the
limit is less than 1 unit
per 100 ml of water.

"The results are pretty bad," said Dr. Donald Hendrickson, president of
HML Labs and professor emeritus of medical microbiology at Ball State
University. He says the results suggest
a lack of hand-washing and proper
hygiene.

HML then tested four different
cleaning methods, including water,
alcohol, Windex Original glass cleaner
and Nice ‘N Clean electronic cleaning
wipes. Alcohol performed best,
cleaning nearly 100% of the bacteria.

Plain water proved to be the least effective method of the four.

Emily Evitt, 29, who lives in Culver City, Calif., and works as an intellectual
property attorney, says she wipes down her computer keyboard and work phone
each morning, but she hasn’t found a solution for her iPhone that both cleans
well and won’t harm the screen.

"I see people at the gym with their iPhones and think, ‘Ugh,’ " says Ms. Evitt, who avoids taking her phone to the gym but brings it with her to work lunches. Ms. Evitt’s husband, Mark, who founded a website called The Manly Housekeeper, wipes down the couples’ phones with alcohol on the back cover and with water on the front.

Audio
Caroline Porter stopped by The Wall Street Journal This Morning to break the news.

"People are just as likely to get sick from their phones as from handles of the bathroom," says Dr. Cain of the American Academy of Family Physicians.

"These are the unintended consequences of new technology that we haven’t seen before so we don’t know all the risks yet," he says.

Phone companies caution against using most household cleaners—which can leave phone owners like Ms. Evitt in a bind.

"It’s really problematic because a lot of manufacturers don’t tell you what coating is on the phone," says Dr. Schmidt. "It’s hard to tell if an alcohol wipe will strip the oil-repellent coating and damage the phone screen.” Screenmaker Gorilla Glass, a provider to more than a dozen smartphone brands, says one of its screens has an easy-to-clean coating that will “survive repeated wiping.”

MORE ON KEEPING CELLPHONES FIT

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- CPR for Cellphones (/articles/SB122463465354156833)

An Apple spokeswoman directed a reporter to the customer manual, which explicitly forbids the use of window cleaners, household cleaners, aerosol sprays, solvents, alcohol, ammonia or abrasives.” BlackBerry’s advice is similar. Its manual states: "Do not use liquid, aerosol cleaners, or solvents on or near your BlackBerry device.” A spokesman for Google Inc.’s Android says the various manufacturers for its phone platform don’t carry an official policy on cleaning methods. Company representatives for the Android, BlackBerry and iPhone smartphones all said that they don’t have particular brands to recommend for cleaning.
New industry solutions may also be in the works. A start-up in Aurora, Colo. is using microscopic patterns that mimic shark skin—known for its unique design that is more resistant to bacteria than other animals’ skin. The company, Sharklet Technologies, is working on products for medical devices, furniture and countertops, but aims to release phone products by the second half of 2013.

**Corrections & Amplifications**
The flu is caused by viruses, not by bacteria. An earlier version of this article incorrectly said that bacteria can cause flu.

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