

# Worth the Risk?

VIV reveals which of five everyday household items pose real dangers to your health and which are safe to use. The answers will surprise you — and just might change your day-to-day behavior.

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**Every day it seems that scientists piece together new information about the things around us. Many of the items we use daily and take for granted as safe, may, in fact, pose a serious threat to our health. But at the same time, researchers dismiss other widespread fears as unfounded.**

**To help ease the confusion, VIVmag delves into concerns about five common items that you encounter in your day-to-day life and, after sorting through the most current research and gathering expert opinions, delivers our verdict on whether the risk is worth the benefit.**



CLICK THE "V" TO SPIN THE RISKOMETER  
AND SEE WHICH CHANCES YOU SHOULD TAKE.



# CELL PHONES



## POTENTIAL RISK

Because cell phones emit electromagnetic radiation, some people suggest they may cause brain cancer. In addition, other recent news coverage suggests that the devices attract lightning strikes.

## CHANCE IT?

Yes

**ACTUAL RISK** A National Institutes of Health review of pertinent research found no increased danger of brain tumors from five years or less of mobile phone use. While one study found no greater risk for people who have been using cell phones for as long as 10 years, there's little conclusive long-term research available. However, the low energy level emitted from cell phones makes it unlikely. As well, cell phones — or other small metal items and jewelry — do not attract lightning, according to the National Oceanic and Atmospheric Administration.

But the discussion about cell phones and safety doesn't end there. Multiple studies, along with a good dose of common sense, have confirmed that driving while talking on the phone is a genuine health hazard. Chatting remotely while maneuvering through traffic is as bad or even worse than driving drunk — it makes you five times more likely to be in an accident, according to researchers at the University of Utah. And while some states have outlawed handheld cell phone use while driving, it turns out the distraction of the conversation itself is the real problem, not the ergonomics involved in handling the phone.

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**IF YOU AVOID IT** Not that long ago (think post-Madonna but pre-Eminem) people were actually unavailable when they weren't at home or the office. But if you're not willing to step back in time, the phone poses no danger to you or others — unless you're driving. Plus, a cell phone can allow you to call for help in emergency situations.

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**EXPERTS SAY** "Several expert reviews have concluded that to date there is no convincing evidence that mobile phone use is associated with an increased risk of brain tumors," says Minouk Schoemaker, M.Sc., a scientist at the Institute of Cancer Research in England. "The most well-established risk of mobile phones is using them while driving."

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**FINAL CALL** Use it, but not when you're behind the wheel.

## SUNSCREEN



**POTENTIAL RISK** Despite much more widespread use of sunscreen by Americans, the incidence of the deadly skin cancer melanoma is growing faster than any other cancers in the United States — in fact, new cases increased 10 percent between 2004 and 2005. This news has prompted researchers to question whether sunscreen really protects against the disease or, conversely, might even encourage it.

**CHANCE IT?** Yes

**ACTUAL RISK** Not all cases of melanoma are sun-exposure related, but undisputed risk factors include inherent sun sensitivity, such as a tendency to burn or develop freckles, and exposure to ultraviolet radiation through sun exposure. Studies have shown that sunscreen lowers the chances of developing precancerous skin lesions, leading scientists to speculate that it may help prevent melanoma as well.

What's puzzling is that some research points to a link between sunscreen use and melanoma. Recent reviews of all available high-quality studies, however, handily refute this connection. The correct conclusion seems to be that regular sunscreen users are more likely to be naturally sensitive to sunlight — which may explain the higher incidence of cancer among these people. The studies also fail to account for how well sunscreen was applied.

**IF YOU AVOID IT** You either risk contracting a deadly disease or, at the very least, premature wrinkles (or you could stay indoors and never see the light of day!).

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**EXPERTS SAY** Use a broad-spectrum sunscreen or sunblock geared toward reflecting both UVA (which has recently shown a stronger association with melanoma) and UVB rays on exposed body parts daily, even in winter. (Look for the just-approved and more potent Antheios SX.) "We reviewed data on thousands of patients and came to the conclusion that sunscreen does not cause melanoma," says Michael Huncharek, M.D., M.P.H. "Rather, when used correctly, it should decrease [instances of] melanoma. But you can't slap it on once and go to the fair or hit the slopes for 10 hours."

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**FINAL CALL** Use it. Often.



## TEFLON-COATED COOKWARE



**POTENTIAL RISK** The chemical perfluorooctanoic acid (PFOA), used in the production of Teflon, was recently declared a likely cancer-causing agent by advisers to the U.S. Environmental Protection Agency. At high temperatures, the cookware can release PFOA and other harmful chemicals.

**CHANCE IT?** No!

**ACTUAL RISK** Substantial research concluded that PFOA causes cancer in animals. Teflon's manufacturer, DuPont, responds that the chemical doesn't remain in the final product. However, PFOA has been detected in human blood, although no one can say definitively how it's gotten there. Overheated, empty pans have reportedly emitted toxic fumes, killing household pet birds. And last year, the EPA asked companies to voluntarily stop using PFOA by 2015.

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**IF YOU AVOID IT** After testing a number of pans in search of one that cooked and cleaned up as well as Teflon, The New York Times food writer Marian Burros wrote that the black enamel frying pan made by Le Creuset passed the test.

**EXPERTS SAY** While research is ongoing, the EPA says that "available information does not indicate that the routine use of household products [made with PFOA] poses a concern." And DuPont asserts that Teflon is safe and that "significant decomposition," in which chemicals may be released, occurs only at temperatures much too high for ordinary cooking. Environmentalists counter that manufacturers' willingness to phase out PFOA is a sign they recognize the danger associated with it.

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**FINAL CALL** Who hasn't forgotten a pan on the burner at some point? Dump it.

# DEET



## POTENTIAL RISK

Implicated in seizures in children, there has long been concern about this insect repellent's link to cancer and neurological disease. It's also more likely to irritate your skin than other anti-bug concoctions.

## CHANCE IT?

Maybe

**ACTUAL RISK** A pesticide deemed “slightly toxic” by the EPA, DEET is unusual in that it’s applied directly to your skin and immediately absorbed by your body. (No wonder people are anxious!) However, during DEET’s 50-year history, very few serious incidents of toxic reactions have occurred when the chemical was used properly. A 2001 Australian study did find that when compared with the newer insect repellent picaridin, DEET is more than twice as likely to produce irritation and discomfort.

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**IF YOU AVOID IT** The obvious annoyance of itchy bites aside, forgoing any sort of bug spray puts you at risk for Lyme disease (transmitted by deer ticks) as well as encephalitis and West Nile virus (both transmitted by mosquitoes). And if you’re heading to the tropics or Africa this winter, add malaria and dengue fever to the list.

Until recently, DEET provided the best and longest protection against insects, hands down. However, odorless, nontoxic picaridin —widely used in Europe — has proved nearly as effective as DEET at similar concentrations.

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**EXPERTS SAY** “I would choose products with 20 percent to 40 percent DEET,” says Noah S. Scheinfeld, M.D., a dermatologist and assistant clinical professor at Columbia University in New York City. “They’re more effective than the low-concentration picaridin available in the U.S. in [the product] Cutter Advanced.” That said, err on the side of caution, experts suggest: Don’t use more than you need and wash off the repellent at night and between applications.

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**FINAL CALL** Opt for picaridin if you don’t mind re-applying every hour and a half or so, or use DEET-based products at the lowest concentration necessary.

# PLASTIC BOTTLES



## POTENTIAL

**RISK** Chemicals in plastic containers have been found to mimic sex hormones, resulting in developmental and reproductive problems in study animals. Meanwhile, Internet chatter claims that dioxins are released by plastic water bottles when water is frozen and then thawed in them.

## CHANCE IT?

NO!

**ACTUAL RISK** Some plastics have been linked to health problems, while others are deemed safer. Many reusable sports bottles are made of the lightweight and sturdy polycarbonate (labeled #7 in the recycling triangle on the bottom of bottles), which contains the hormone disruptor bisphenol-A (BPA). Recently banned in San Francisco as an ingredient in toys or child-care products, BPA has been linked to damaged reproductive organs of rats and mice, reduced sperm counts in rats, and changes in animal tissue that resemble early-stage breast cancer. PVC (#3), and Polystyrene (#6) commonly contain phthalates or styrene, another endocrine disruptor and probable human carcinogen.

Safer plastics include PET or PETE (#1), high-density polyethylene (#2), low-density polyethylene (#4) and polypropylene (#5).

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**IF YOU AVOID IT** Lightweight glass and stainless steel containers eliminate the possibility of chemical leaching.  
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**EXPERTS SAY** “Increasing levels of BPA leach from polycarbonate plastic as the plastic ages,” says Patricia Hunt, Ph.D., a geneticist and professor at the School of Biology at Washington State University in Pullman, who has studied the chromosomal effects of BPA on mice. “High temperatures and harsh detergents accelerate this process.” On a happier note, freezing and thawing water in any sort of bottle likely does not release dioxins — which are not found in plastics. Rather, it is heat that triggers chemical migration.  
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**FINAL CALL** Dump 'em. Start a stainless-steel trend at your gym. Store food in glass containers and do not reuse plastic water bottles or other plastic containers. In particular, do not microwave food in plastics not specifically labeled for microwave use.

