

www.chicagotribune.com/health/ct-met-eco-questions-20100706,0,3618266.story

chicagotribune.com

Paper or plastic?

We asked experts to answer some of your most common questions about environment and health

By Monica Eng, Tribune reporter

10:11 AM CDT, July 7, 2010

Conscientious consumers going about their busy days eating, working, shopping and cooking are faced with many little decisions that can have a cumulative impact on the environment or their health.

We like to believe we're making the best choices, but we often don't have the resources or time to really check it out.

The Tribune recently compiled a list of consumer dilemmas from readers and staff, then consulted the experts, crunched the numbers and considered different angles to come up with some answers.

The answers, as it turns out, are not always clear-cut.

Reusable coffee cups, paper or foam?

It depends on your priorities.

Looking only at energy used in manufacturing, the winner is polystyrene foam. According to a 1994 study by the University of Victoria's Martin B. Hocking, making a ceramic cup requires 70 times more energy than making a foam cup. Glass cups and paper cups require 20 and two times as much energy to make as foam, respectively.

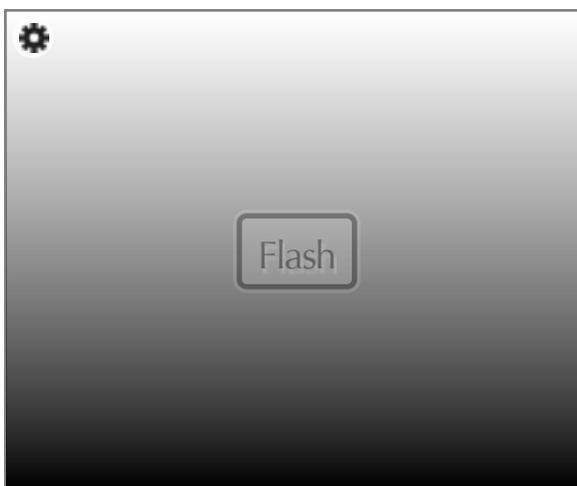
When you add the energy used to wash a reusable cup in an energy-efficient dishwasher, the disparity gets even bigger. You'd have to use and wash a glass cup 15 times to make it as energy efficient as a paper cup. And you'd have to use a ceramic cup more than 1,000 times to make it as energy efficient as a foam cup.

But there are other factors to consider.

Expanded polystyrene (which some erroneously refer to as Styrofoam) is cheap to make and transport, but it takes centuries to biodegrade in a landfill and is very hard to recycle. In the Chicago area, for instance, only one company will accept it for recycling. And because the recycler pays no money for the material, few bother.

Foam cups also are made from petrochemicals, and many people — especially in light of the BP

advertisement



oil spill — want to reduce dependence on this nonrenewable resource. Some also are concerned that chemicals can leach from polystyrene at high temperatures, though manufacturers cite studies indicating the material is safe for food containers even at high heat.

Paper coffee cups may feel greener, but most are not recyclable because of their plastic lining. (However, Starbucks Corp. recently announced it will send cups used at its Chicago stores to be recycled into napkins beginning in the fall.) Making paper cups contributes to deforestation and releases carcinogenic dioxin into the environment if the paper is bleached, and they won't biodegrade in a landfill for about 20 years.

The bottom line: The best choice is probably a ceramic, glass or steel mug you already own and reuse many times, said Paul McRandle, a Natural Resources Defense Council senior editor. Then comes paper, preferably the expensive, tough-to-find biodegradable paper cups. Foam is his third choice.

Paper or plastic grocery bags?

Both kinds of bags come with environmental drawbacks, including energy used, waste produced and airborne pollution emitted during manufacturing. When not composted or recycled, bags also take up space in landfills, where they take a long time to biodegrade.

Plastic bags are made from a nonrenewable resource (petroleum) and hurt marine life when they make their way into oceans. But paper demands more energy and creates up to 15 times more waste and pollution, experts say.

Completely plant-based bags will biodegrade, but those mixed with plastic won't. And many of these bioplastics are derived from corn, a crop that often is not grown and harvested sustainably.

Now for the good news: An Australian report found that canvas bags can be 14 times more environmentally efficient than plastic and 39 times better than paper if used 500 times.

The bottom line: Experts say the best choice is a reusable bag, preferably made from post-consumer recycled material or unbleached, organic cotton. Plan to use it hundreds of times. Second best choice: a paper bag you reuse as much as possible and then compost or recycle. Last: a plastic bag you recycle.

Cloth or paper napkins?

"The clear choice is organic, unbleached cotton napkins," McRandle said. "Preferably grown with a low water usage irrigation system."

If you already own a bunch of regular cloth napkins, don't freak out. Just use them and wash them judiciously, preferably along with the rest of your laundry load on a cool temperature. And consider hanging them on the line to dry.

Paper napkins not only are usually discarded in landfills but also present other problems, McRandle said. "If they have been treated with chlorine bleach, that can give rise to dioxins in the water and air," he said. In many cases, he explained, problem chemicals are not contained in a product but are released into the environment during manufacturing.

What if you absolutely can't get a cloth napkin at the time you are eating?

"Then look for unbleached paper napkins made with as much post-consumer recycled material as possible and look for the symbol showing they were processed chlorine free," McRandle said. Recycle or compost the napkin if it is only lightly stained.

The bottom line: Use cloth napkins, preferably organic and unbleached cotton.

Garbage disposal or garbage can?

Experts say the best way to dispose of food scraps is proper composting, which will turn them into a healthy substance that enriches the soil.

The state recently legalized commercial composting (which is still in its infancy), but home compost pickup is not yet a reality in Illinois.

If you can't compost, experts say the next best bet is to send food scraps down a garbage disposal.

According to Frank Avila, a commissioner with the Metropolitan Water Reclamation District of Greater Chicago, the district processes about 550 tons of sewage sludge a day that is later sold or given to farms to fertilize grazing fields or to serve as topsoil for landfills and golf courses. But, Avila added: "It's better to compost and save the cost of processing it."

Plus, McRandle said, many sewage departments can't process all their sludge. "When you compost, you know exactly what's happening, where it's going and you are taking responsibility for it," he said.

"When you throw your scraps into the garbage, they go into a landfill where they decompose in a slow fashion that produces methane, which is an extremely potent greenhouse gas," he said.

Another way to reduce food scraps and general food waste, McRandle said, is to simply "not buy as much food so you don't end up throwing so much away." When shopping for perishable foods, think and plan how much you can reasonably cook and eat in coming days.

What about diapers and cooking pans?

Q Should I use cloth or disposable diapers?

A "We suggest that people try to be flexible and use what works for their needs of the moment," McRandle said diplomatically.

"But at home, it is preferable to use organic, unbleached cloth diapers, wash them yourself and dry them on the line," he said, rather than having them transported to a professional cleaning service that uses bleach.

"The benefits are a reduction in the huge quantity of waste generated by disposable diapers," McRandle said. "We estimate that 250,000 trees are used each year to make diapers for babies. Plus, the bleaching of disposable diapers creates dioxin, and that's an issue."

If you must use disposables, "there are more eco-friendly diapers than others," McRandle said. Some are even supposedly 100 percent compostable and made with nonbleached cotton and plastic based on corn that is not genetically modified.

Q In a restaurant, if I can't finish the bread basket, isn't it better to take the food home for later use than to send it to the trash as the law requires?

A You're right that the law requires the bread to be thrown away after it has been served unsealed to a customer, according to the FDA and the Chicago Department of Public Health. But don't feel bad about tucking the bread away in your purse instead.

"When we see people wrapping it up in a napkin to take home, we come over with a bag," said Ina Pinkney, owner of Ina's, which serves seeded multigrain bread with its meals. "We don't want it to go to waste, so we encourage them to take it home."

Q What kinds of cooking pans should I use for health and the environment?

A Stainless steel or cast-iron is the pan of choice for researchers at the Natural Resources Defense Council. Although nonstick pans are handy for things like fried eggs and pancakes, the coating can break down, create vapors and release toxic substances at high heat.

Teflon maker DuPont says this doesn't happen until a pan reaches 500 degrees. But the Environmental Working Group, another advocacy organization, says its tests found that Teflon pans get as hot as 700 degrees when heated for three to five minutes on high heat.

The fumes, which have sickened some animals and humans, contain perfluorooctanoic acid, or PFOA, which has been classified as a likely human carcinogen. The U.S. Environmental Protection Agency is increasingly concerned about PFOA because it is so persistent in the environment, has been found in the blood of most Americans and stays in the body for years.

EPA researchers say nonstick pans aren't a major source of exposure to PFOA. Other sources include stain-resistant carpets and clothing, grease-repelling food packaging and industrial discharges into the air and water.

Q What should I do at a restaurant when they give me a wad of napkins I don't need?

A Give the pile back to the staff or save them for later. Don't leave them on the table because workers are supposed to throw away any materials that have been used by customers.

SOURCES: Natural Resources Defense Council, Environmental Working Group, treehugger.com, eHow.com, Metropolitan Water Reclamation District of Greater Chicago

Copyright © 2010, [Chicago Tribune](http://www.chicagotribune.com)