

Cracking the Code:

10 Myths and Facts about the Environment and Your Health

myth

fact

When it comes to personal care products, if it's on the shelf, it's safe.

1

The FDA does not inspect personal care products and cosmetics for accuracy of labeling or the presence of harmful contaminants. Ingredients such as a fragrance may be a "trade secret" containing as many as 100 chemicals.

TIP: Look for USDA organic or NSF certification and choose products free of phthalates, fragrance, and parabens. Avoid loose powders and aerosols like spray sunscreens, which increase inhalation exposures.

Products labeled BPA-free are safe.

2

Many manufacturers have replaced bisphenol-A (BPA) with BPS or BPF. Studies show that these chemicals leach into food and beverages and have the same hormone-disrupting properties as BPA.

TIP: Reduce exposure to these harmful chemicals by choosing fresh or frozen foods instead of canned. Use glass or stainless steel food and beverage containers and avoid heating plastic.

GMO ingredients are toxic.

3

There is no evidence that genetically modified organisms (GMOs) themselves are toxic to humans when ingested. However, GMO crops like corn and soy that are engineered to be resistant to weed killers have been shown to be contaminated with higher levels of pesticides than non-GMO crops.

TIP: To limit pesticide exposure, choose products with USDA Organic or Non-GMO Project Verified labels.

Products with added antibacterial are better for your health than those without.

4

Antibacterial chemicals are added to many products like soaps, toothpaste, athletic clothing, cutting boards, and school supplies. In most cases these chemicals do not add additional protection against infection and can sometimes be harmful.

TIP: Avoid products labeled "antibacterial," "antimicrobial," or with the active ingredient triclosan or quaternary ammonium compounds. Wash hands with fragrance-free soap and water or use alcohol-based sanitizer on the go.

Essential oils are safe and natural.

5

Natural products are not always pure or safe. Some essential oils (EOs) are toxic to children and pets when ingested or inhaled and can cause skin burns, allergic reactions, respiratory problems, and seizures. Some examples include camphor, clove, lavender, eucalyptus, thyme, tea tree, and wintergreen. Some EOs are contaminated with harmful chemicals. EOs are not tested by the FDA or approved as medical treatments and studies do not conclusively support their therapeutic use.

TIP: If you choose to use EOs, dilute them according to instructions. Consult with a doctor regarding use during pregnancy, breastfeeding, or with children. Diffuse only for short periods of time in a well-ventilated area. EOs should never be ingested.

myth

fact

Cell phones and wireless technology cause cancer.

6

Cell phones and Wi-Fi utilize radiofrequency (RF) waves, low energy radiation that does not cause DNA damage. The World Health Organization classifies RF as a possible human carcinogen, based on evidence from laboratory and human studies, however more research is needed, particularly in children.

TIP: Because RF waves do not travel long distances, exposure can be dramatically reduced by using corded earphones or speaker phone, not carrying your cell phone on your body, and putting a barrier between your laptop and lap. Avoid sleeping with cell phones/tablets and keep wireless routers out of the bedroom when possible.

Environmental health scientists are only concerned about exposures to synthetic chemicals.

7

The field of exposomics examines the cumulative effects of all internal and external exposures to identify risk factors for disease. Non-chemical exposures like stress can be toxic and worsen the effects of chemical exposures like air pollutants and lead.

TIP: Proven strategies such as strengthening social support systems, getting sufficient sleep, good nutrition, physical exercise, meditation, exposure to nature, and the help of a mental health professional, can increase resilience and mitigate the impacts of stress and toxic environmental exposures.

The prenatal period and early childhood are the only life stages when we are vulnerable to harmful exposures.

8

Although studies have shown that the developing fetus and infant are especially vulnerable to toxic exposures, there are other “windows of susceptibility” across the lifespan. The pubertal and teen years are sensitive periods as the brain and reproductive system continue to develop into early adulthood. Periods in which the body is undergoing changes such as pregnancy, breastfeeding, and menopause as well as old age constitute additional vulnerable periods.

TIP: Men and women of all ages should avoid potentially harmful exposures to reduce risk of disease across the lifespan.

The effects of toxic environmental exposures cannot be reversed.

9

Many common chemicals such as phthalates, BPA, and some pesticides, leave the body quickly. Studies indicate that the benefits of good nutrition, a positive social environment, physical activity, and outdoor play, can counteract the effects of harmful exposures.

TIP: Choosing safer products and engaging in healthy behaviors can rapidly reduce exposures and improve overall health.

Reducing exposure to widespread environmental chemicals is difficult and expensive.

10

Studies have shown that making easy, affordable changes to your daily habits can lead to significant reductions in chemical exposures.

TIP: Take simple steps such as handwashing, eliminating dust with a wet mop or wet duster, ventilating to improve indoor air quality, using fewer products, and leaving your shoes at the door.



Icahn
School of
Medicine at
Mount
Sinai

*Institute for
Exposomic Research*

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