

Counterfeit Estrogens and Your Metabolism

Ask most women about their hormones and they usually think of the natural estrogens produced by the body. But how many women realize that numerous other substances—many of which come from our environment—can fool the body into processing them as if they were also estrogens?

Estrogen mimickers, also referred to as xenoestrogens, come from a large group (tens of thousands) of foreign compounds derived from synthetic materials like pesticides, plastics, body cremes, detergents, food supplies, and our environment. Xenoestrogens have the ability to disrupt our natural hormonal systems, creating hormonal havoc that can possibly lead to conditions women attribute to perimenopause, PMS, and menopause, including weight gain—especially in the abdominal area—and increased breast cancer risk. The problem is that the majority of these xenoestrogens are fat soluble, which means they have a greater potential of becoming lodged within our fat cells, and once there, they are very difficult to get rid of.

When it comes to your metabolism, xenoestrogens are known to cause a disruption in the way your body metabolizes important biochemicals that deal with stress, moods, cravings, and sleep. Research presented in the *American Journal of Physiology* indicates that xenoestrogens have the potential to create an enhanced environment for our bodies to store fat, all the while making it extremely difficult to lose it.

Japanese researchers built upon this observation in 2002 when they published a study in the *Journal of Lipid Research* on a common synthetic estrogen, called bisphenol A or BPA. Widely found in polycarbonate bottles used to hold drinking water as well as the coating in metal cans and plastic food containers, BPA triggers and stimulates two of the key mechanisms behind the accumulation of body fat, increasing the number of fat cells (hyperplasia) and

enhancing their fat storage abilities (fat cell hypertrophy). BPA and other xenoestrogens found in plastics are known to leach when exposed to high temperatures and caustic cleaners. Researchers from Stanford University School of Medicine accidentally discovered that the polycarbonate lab flasks they were using to sterilize the water used in their experiments contained enough BPA to cause hormone sensitive breast cancer cells to proliferate. Speaking of cancer, research presented in May 2004 in the *Journal of Applied Toxicology* indicates that xenoestrogens commonly found in many body care and cosmetic products in the form of p-hydroxybenzoic acid esters or **parabens** have been detected in human breast tumour tissue, indicating that they are definitely absorbed through the skin.

It is nearly impossible to eliminate our exposure to xenoestrogens, but we can take a few simple steps to reduce overexposure to these disrupting chemicals:

- If you do use bottled water, change the bottle frequently and never expose it to direct sunlight, heat, or freezing temperatures.
- Avoid heating food in plastic containers and avoid the use of plastic wraps.
- Use paraben-free skin lotions and cremes.
- Use natural cleaning products and soaps.
- Use integrated pest management instead of pesticides.
- Eat organic meats and produce.
- Exercise regularly to dislodge xenoestrogens from the body.

About the Author

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