

Cookware Chemical Linked to Thyroid Disease

Posted By [Dr. Mercola](#) | February 13 2010 | 104,315 views

A study links thyroid disease with human exposure to perfluorooctanoic acid (PFOA). PFOA is a persistent organic chemical used in industrial and consumer goods including most nonstick cookware and stain- and water-resistant coatings for carpets and fabrics.

The study included nearly 4000 adults aged 20 and older whose blood serum was sampled between 1999 and 2006 for PFOA.

The researchers found that the individuals with the highest PFOA concentrations were more than twice as likely to report current thyroid disease.

Previous animal studies carried out by other scientists have shown that the compounds can affect the function of the mammalian thyroid hormone system. This system is essential for maintaining heart rate, regulating body temperature and supporting many other body functions, including metabolism, reproduction, digestion and mental health.

Sources:

- » [Eurekalert January 21, 2010](#)
- » [Environmental Health Perspectives January 7, 2010](#)



Dr. Mercola's Comments:

I know it might seem a bit of an extreme position but you can do your health a great service by getting rid of any Teflon-coated cookware immediately.

Like so many products developed for the sake of convenience without concern for human health, Teflon coated non-stick cookware when heated has proven to be a primary source of a dangerous toxic fluoride derivative, specifically perfluorinated chemicals (PFOAs).

PFOA and other perfluorinated chemicals are used to create heat-resistant and non-stick coatings on cookware, as well as grease-resistant food packaging and stain-resistant clothing. Studies have linked these chemicals to a range of health problems, including thyroid disease, infertility in women, and developmental and reproductive problems in lab animals.

Teflon pans quickly reach temperatures that cause the non-stick coating to begin breaking down, releasing toxins into the air surrounding you.

When your Teflon pot or pan reaches 680 degrees F (which takes about three to five minutes of heating), at least six toxic gases are released. At 1,000 degrees F, the coatings on your cookware break down into a chemical warfare agent known as PFIB.

These chemicals are easily absorbed by your body, and have been linked to a growing number of health concerns. That healthy, home-cooked meal becomes toxic when prepared in unsafe cookware.

Should you be Concerned About PFOA?

Teflon, created in 1938 by the DuPont Company, gained wide distribution before scientists began looking into its impact on human health.

It can now be found in many areas throughout your home. Not only on your pots and pans in your kitchen, and all of your stain resistant laundry, but it can also pervade your entire home if you have wall-to-wall, stain resistant carpeting.

Vacuuming carpet that contains stain-resistant coating will release these chemicals into the air to be circulated in your home.

I don't recommend eating [microwave popcorn](#) for many reasons, but did you know that PFOA is not only present in the inner

coating of the bag, but it also migrates to the oil from the packaging during heating?

At this point PFOA is so prevalent, that even many of your sources of drinking water have been contaminated.

Not surprisingly, this toxic chemical is likely lurking in your body right now.

The CDC's Fourth National Report on Human Exposure to Environmental Chemicals, 2009, which is considered the most comprehensive assessment to date of the exposure of the U.S. population to chemicals in our environment, detected not one but 12 types of perfluorinated compounds (PFCs) in Americans, including PFOA.

This group of chemicals is among 75 that have *never before been measured* in the U.S. population, but now is showing up with great frequency.

How PFOA Damages Your Thyroid and Health

The latest research points to some very concerning news about PFOA and thyroid function. People with the highest 25% of PFOA concentrations (above 5.7ng/ml) were more than twice as likely to have thyroid disease than those with the lowest 50% of PFOA concentrations (below 4.0ng/ml).

Your thyroid is a small butterfly-shaped gland in your throat area that contains thyroglobulin protein, which binds to iodine to form hormones, which in turn influence essentially every organ, tissue and cell in your body.

Thyroid hormones are used by every cell of your body to regulate metabolism and body weight by controlling the burning of fat for energy and heat. Thyroid hormones are also required for growth and development in children.

Thyroid disease, if left untreated, can lead to heart disease, infertility, muscle weakness, osteoporosis and, in extreme cases, coma or death. Exposure to these toxic chemicals is likely one reason why thyroid disorders are becoming so widespread.

If you're concerned you may be suffering from thyroid disease, especially hypothyroidism, or underactive thyroid, please watch my recent video on the topic.

Do You Really Want to Cook Your Eggs in This?

Non-stick cookware has become enormously popular because of its convenience factor; foods don't stick to the surface, and the classic example is the sunny-side-up eggs that slide right out of the pan.

Now, about 70 percent of cookware sold in the U.S. contains a non-stick coating ... and most Americans test positive for PFOA in their blood.

Aside from potentially harming your thyroid, these nasty chemicals have also been linked to lower birth weights among newborns, and the U.S. Environmental Protection Agency (EPA) revealed that PFOA "poses developmental and reproductive risks to humans" -- an extreme understatement.

PFOA was linked to a 60 percent to 154 percent increase in the chance of infertility!

Further, in animal studies PFOA has been associated with:

- "Significant increases in treatment related deaths" in rat offspring at doses that did not affect the mothers
- Serious changes in the weight of various organs, including the brain, prostate, liver, thymus, and kidneys
- The deaths of a significant number of rat pups of mothers that had been exposed to PFOA
- Damage to the pituitary at all doses in female rat offspring (The pituitary secretes hormones that regulate growth, reproduction, and many metabolic processes. Change in pituitary size is associated with toxicity)

PFOA has even been associated with tumors in at least four different organs in animal tests, and has been associated with increases in prostate cancer in PFOA plant workers. The EPA has also ruled PFCs as "likely carcinogens."

Take Control of Your Health and Get PFOAs Out of Your House NOW

A voluntary program for companies to reduce PFOA emissions and products by 2010, and eliminate them entirely by 2015, has been introduced by the EPA. But it is entirely voluntary, so I recommend you take matters into your own hands and ditch any products that contain these toxic compounds.

Some of the products that contain PFCs, which I highly recommend getting rid of, include:

- Teflon and similar types of non-stick cookware: Replace it with either ceramic or glass. My personal choice is ceramic cookware, because it's very durable and easy to clean, and there's absolutely no risk of exposure to harmful chemicals. **IMPORTANT NOTE** Our current ceramic cookware is not actually nonstick but this summer we will be introducing a completely PFOA-free, safe nonstick metal frying pan made out of zirconium. Very high tech, completely safe and absolutely amazing
- Microwave popcorn bags
- Packaging for greasy foods
- Stain-proof clothing
- Carpet and fabric stain protectors
- Flame retardants and products that contain them

Avoiding these products is especially crucial for pregnant women or couples who want to have children, but really anyone who is interested in protecting their health would benefit by seeking to avoid them.

Related Links:

- » [Common Chemicals Linked to Infertility](#)
- » [Teflon Finds Itself in Sticky Situation](#)
- » [Non-Stick Cookware Continues to Prove Its Toxicity](#)