Hi Alice,

I have a frying pan from which the Teflon coating is beginning to flake off. Last night I was cooking a dish involving a white sauce when I noticed what could only have been flakes of Teflon in the sauce. I threw the meal out, as I had a roommate tell me one time that Teflon is poisonous; but flaky Teflon frying pans seem pretty common. I couldn't find anything on the web to say that Teflon was bad for you in that form. Are there any health risks that go with eating from pans where the Teflon is coming off?

Answer

Dear Reader,

A worn-down pan may leave you in a sticky situation, but it most likely won’t present a serious threat to your health. Teflon, which is one manufacturer’s name for polytetrafluoroethylene (PTFE), is used to produce non-stick coated cookware. Research shows that there are relatively small health risks associated with ingesting Teflon, so worry not if you’ve accidentally eaten a tiny flake here and there. However, non-stick pans may present a health risk if significantly overheated. To keep your non-stick pots and pans spick and span and safe, keep reading for some handy maintenance tips!

While there seems to be a lack of consensus on the dangers of Teflon in food and other materials, most studies point out that the health risks associated with PTFE remain relatively small. Though its name is a mouthful, PTFE won’t affect your body if trace amounts get in your food. As an inert chemical (not active or reactive), PTFE will just travel through your system without being absorbed. The overall risks of non-stick pans are minimal, but when heated to over 300 degrees Celsius/572 degrees Fahrenheit (a temperature you won’t likely reach intentionally on your stove or in your oven), PTFE may break down. The most common side effect comes from inhaling some of the PTFE fumes that are produced at very high heat. Individuals have reported an illness resembling the flu, with symptoms including tightening of the chest, mild coughing, nausea, and sweats (it’s called polymer fume fever, and it’s rare). If, however, you’re a bird owner, you may want to limit the amount of time you use non-stick pans, as birds have been found to particularly susceptible to these fumes. Although there’s likely a negligible amount of PTFE that migrates into the food, it’s still probably best not to eat something that has visible flakes.

The chemical in non-stick pans that many have expressed concern about is called
perfluorooctanoic acid (PFOA). This is a synthetic chemical that was used in small amounts to create PTFE. The U.S. Environmental Protection Agency \[2\] is investigating whether PFOA is carcinogenic, as there have been health and environmental concerns over the manufacturing process of PTFE and chemicals such as PFOA that are used to make it. It doesn?t degrade easily, which allows it to build up on the body over long periods of time, and most people have trace amounts of PFOA in their system. Even though it?s been an ingredient in Teflon pans, studies have shown that there is minimal transfer of PFOA between pans to food. People are more likely exposed to PFOA from other sources such as foods, stain resistant fabrics, and water. Nevertheless, manufacturers have committed to eliminating the use of PFOA from PTFE products, reducing the amount of PFOA available.

To keep your non-stick cookware in its best shape, try opting for wooden or plastic utensils instead of sharp, metal utensils which may scratch the non-stick coating, causing it to flake more and reducing its non-stick powers. In addition, whether non-stick or regular, it?s a good idea to keep an eye on your pan, avoid overheating it, and heat it with something in the pan (such oil or water). If all this Teflon talk is making you lose your appetite, you may want to consider switching to cast iron, stainless steel, or other pans instead.

Here?s to cooking up a storm,

Alice!

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