What Happens To BPA In Your Body? Are We Sure We Know?

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If you browse around on this website, you'll quickly find the answer to the first question. The most common way we encounter BPA is through our diet and, after oral exposure, BPA is quickly absorbed into the body through the intestine.

Before it can go anywhere in the body, BPA is efficiently converted to a biologically inactive metabolite by enzymes that are plentiful both in the intestinal wall and the liver. That inactive metabolite is then quickly eliminated from the body through urine.

If you look for BPA in the body, you probably won't find it. But you probably will find low levels of the metabolite in urine.

But how sure are we about that? After all, this is an internet site and you know you can't believe everything you read on the internet. That's where a recently published study and a key principle of the scientific method come into play.

Simply speaking, the scientific method is the systematic way in which we acquire new knowledge. Scientists conduct experiments through which they gather data and, as a result, we learn something we didn't know before.

To confirm what we learned, a key principle of the scientific method is the concept of replication. If an experiment cannot be replicated to get the same result, the original result may be an error. Conversely, if an experiment is replicated with the same result, we have more confidence that the result is valid.

Recently a pair of researchers from Sweden and Canada published a study in which they dosed a group of human volunteers with a small amount of BPA that was placed on a

cookie. The researchers then monitored what happened to BPA as it passed through the body.

They did not find any BPA in the blood of the volunteers after the exposure. What they did find is the metabolite of BPA in the volunteer's urine very soon after exposure.

These new results aren't really unexpected but they are very reassuring. They're exactly what we would expect based on three previous studies on human volunteers. According to the scientific method, our confidence in knowing what happens to BPA in the body is further increased by replication of results across all four studies.

In this case, the four studies were conducted independently by four different groups of researchers. The first study, dating back to 2002, came from academic researchers in Germany. That was followed by two studies in 2015, the first from researchers at the Pacific Northwest National Laboratory, which is a U.S. government lab, and followed by a study from the U.S. National Toxicology Program, another U.S. government lab.

Along with being a good example of how the scientific method works, the results from these four studies are important for consumers who regularly contact trace amounts of BPA through our diets. Thanks to this normal process of metabolism, BPA is not likely to be harmful at the low levels to which we're exposed since our bodies are very good at eliminating it before it could build up or do us any harm.

Now that you're tuned in to the scientific method and the important principle of replication, you might be questioning that reference to trace amounts of BPA. How do we know that and how sure are we? After all, you are reading this on an internet site.

In this case, more than 140 studies conducted in 30 countries worldwide have consistently reported that human exposure to BPA is hundreds to thousands of times below safe intake limits set by government bodies worldwide. With more than 85,000 data points from these studies, we can be quite sure that human exposure to BPA is very low.

It's not always the case that scientific studies and their findings are replicated as they have been in the examples discussed here. Before believing the latest scientific result that you read on the internet, it's worth asking the question. Has it been replicated?