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YOUR HEALTH

Wondering what all the fuss with polyvinyl chloride is all about?

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Look no further, here's the scoop

Real talk— polyvinyl chloride (or PVC for short), seems to be in practically everything, doesn't it? If you walk down a random aisle in a store, you can find this material in upholstery, shower curtains, toys and even school supplies. You might be thinking, if it's in so many things (including items for children), it should be safe right? In reality, the answer is no. BUT, don't fret, since there are simple, yet effective ways to avoid PVC in your everyday life.

Can you break down what PVC is for me?

While polyvinyl chloride sounds like a mishmash of scary chemicals, it is, to simply put it, a type of hard plastic that is made from vinyl chloride (1). Here's where PVC can get confusing. An item made from 100 percent PVC is not inherently harmful to humans, but it is also very hard and brittle, so it's not a particularly useful material to anyone (2). But if you add in chemicals like phthalates and bisphenol-A (BPA), which DO have negative health effects (such as messing up how your hormones should normally work), you get a flexible plastic that industry loves to use to manufacture a variety of items (1). This is the kind of PVC that is used in basically all products on the market, which means unfortunately, all PVC products are harmful (cue frowny face).

Another thing to consider is the life-cycle of PVC. The manufacturing process, as well as the burning or landfilling of PVC (at the end of its life), releases a chemical group called dioxins (3). Dioxins are a chemical group with a BIG impact. Exposure to dioxins can cause reproductive and fertility problems, liver damage, and even developmental problems in children.

How can I be exposed to PVC?

Like many other chemicals, there are three primary ways you can be exposed to PVC.

1. **Ingestion**: this can occur when you swallow food or water contaminated with PVCs
2. **Inhalation**: this primarily occurs to folks working in the PVC industry when they breathe emissions from the manufacturing or burning of PVC
3. **Skin contact**: this can occur if you touch products made with PVC

How can I avoid PVC?

I know that it sounds scary that PVC is in so many products and that there are several ways for it to enter your body, but there are ways to avoid PVC in products! Here are excellent suggestions from the National Institute of Health (1).

- Avoid PVC products such as plastic bottles, toys, or school supplies that may contain PVC. An alternative idea is to use stainless steel or glass bottles, and purchase toys that are not plastic.
- Don't let children play in dirt near waste sites or factories. Watching where your children play has a variety of other health benefits too!

- Choose glass containers over plastic containers that may contain PVC materials. Here is a roundup of safe alternative containers.
- Avoid eating food stored or microwaved in PVC plastic wrap. Here's an easy tip to make your microwave meals healthier!
- Choose safer PVC-free consumer items (for instance, swapping out your shower curtain!).
- Keep indoor rooms well ventilated. If you're thinking of buying an air purifier, check out all the deets here.
- When remodeling older homes, use proper ventilation and protective equipment to minimize exposure to PVC-containing materials.

References

1. https://toxtown.nlm.nih.gov/chemicals-and-contaminants/polyvinyl-chloride-pvc
2. https://www.sciencedirect.com/topics/earth-and-planetary-sciences/polyvinyl-chloride
3. https://toxtown.nlm.nih.gov/chemicals-and-contaminants/dioxins

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