

Preventing Prenatal Exposures

[music] Anne Johnson: Welcome to Environmental Health Chat, a podcast about how the environment affects our health, from the National Institute of Environmental Health Sciences Division of Extramural Research and Training. I'm your host Anne Johnson.

If you've heard our podcast before, you might have started to notice that one topic seems to pop up in about every other episode.

[clips: pregnant women...women who are pregnant...pregnant women...during pregnancy...while you are pregnant]

Anne Johnson: What's the deal with pregnant women and environmental exposures? We thought we'd do you expecting moms a favor and devote today's entire podcast to prenatal exposures. And for any listeners who are not pregnant, you listen up, too, because there's a lot you can do to support healthy pregnancies. We'll also take a special look at the role of health care providers.

Our guest today is Tracey Woodruff. She's a professor and director of the Program on Reproductive Health and the Environment at the University of California, San Francisco. She also has been pregnant herself—three times. She says environmental contaminants are a real issue for women in America today. These contaminants include chemicals like BPA and phthalates that are used to manufacture many of the products we use every day. Tracey calls these 'industrial chemicals,' and they can be detected everywhere in our environment, from the dust under your couch to the takeout container from last night's dinner.

Tracey Woodruff: We know that pregnant women are exposed to many different industrial chemicals during pregnancy. The study that we did that we published a couple years ago using data that's collected by the CDC showed that there's at least 43 different industrial chemicals that are measured in 99-100% of pregnant women in the United States. So the thing is that we're finding a lot of these different types of industrial chemicals, they're measured in pregnant women, and it's a time when exposures to industrial chemicals may be particularly concerning because these chemicals can have adverse effects on development.

Anne Johnson: Those adverse effects could span the gamut from low birth weight to decreased IQ to possible long-term health effects like infertility or even cancer. It's not yet clear exactly which industrial chemicals cause adverse health effects or the level of exposure that's harmful. But Tracey says there's enough compelling evidence to say that pregnant women should try to avoid exposures where they can.

Tracey Woodruff: There are studies that show that if people do certain things, they can lower their exposures to certain types of toxic chemicals. There are things that you can do that do not cost money and that are easy to do. So they include things like taking your shoes off when you enter the house so you don't drag in dust—a lot of chemicals can hang around in dust. One way to minimize exposures is to wash your hands before you eat, and also to use cleaning products that you know are cheap and non-toxic with available home ingredients such as vinegar and baking soda.

Anne Johnson: Other tips include avoiding cigarette smoke, pesticides, lead, radon, and home-improvement products like paint. Don't put plastic in the microwave, and don't use plastic for hot food or beverages. Think about the exposures you might face in the workplace, and ask to be temporarily reassigned if your work involves toxic substances.

So basically, we're at a point now where we know what industrial chemicals are, we know that at least some chemical exposures are associated with adverse health effects, and we know at least some ways to limit exposures during pregnancy.

But here's where the story takes an unexpected turn. Thinking about where pregnant women turn for information about health issues like this, Tracey and her colleagues came up with an idea for a research study.

Tracey Woodruff: We wanted to understand what physicians are thinking about exposures to industrial chemicals because they are seen as an authoritative source of information by their patients, and they're also seen as an authoritative source of information by the public in general. And so we wanted to understand what their understanding is of industrial chemicals and what they're saying to their patients.

Anne Johnson: So they worked with the American Congress of Obstetricians and Gynecologists to survey their members—essentially all the ob/gyns in the country. The 2500 responses they received painted a clear picture, but it's one that Tracey found a little disconcerting.

Tracey Woodruff: What we found was that the vast majority of obstetricians think the issue of the environment is important for their patients. Almost 80 percent said, "Yes, I think that the environment matters for my patients' health." But very few of them actually said anything to their patients about the environment because they basically didn't know what to say. There's no clinical guidelines for them, they hadn't been trained in medical school about what to say, so they just felt pretty much at loss.

Anne Johnson: With these results, it seemed clear that what was needed was a lot more information all around. So the American Congress of Obstetricians and Gynecologists developed a statement about the environment and reproductive health.

Tracey Woodruff: And in the statement it said that the scientific evidence is robust and that we should be taking action to protect our patients. And they made several recommendations: to make sure we're incorporating this into our education system; they also said we need to be developing appropriate materials that we can give our patients and counsel our patients; and then lastly they said we should also be looking to the broader context of why women are being exposed to industrial chemicals, which is public policy. Part of the thing that's important to remember about the interaction between the obstetrician and his or her patient is that they're basically looking to prevent an exposure that wasn't intended. She doesn't want it, she doesn't know how to get rid of it, and really the burden is on the patient and it's on the doctor to figure out how to prevent it when the reality is the burden should really be on not having harmful chemicals in the marketplace.

Anne Johnson: Tracey and her colleagues also took action by developing a brochure that can be handed out in the doctor's office to offer practical tips for pregnant women. She says the overall message is to be cautious, and do what you can to reduce exposures, but don't panic. The message for health care providers is to get educated about environmental contaminants, and find ways to start talking to patients about it. And for the rest of us, we'll do what we can to make our homes and workplaces safer for the pregnant women around us and for the next generation.

Thanks to today's guest Tracey Woodruff of the University of California, San Francisco. You've been listening to Environmental Health Chat. I'm your host Anne Johnson, and our podcast is brought to you by the Division of Extramural Research and Training at NIEHS, part of the National Institutes of Health, an agency of the U.S. Department of Health and Human Services. Find us online at niehs.nih.gov/podcasts. If you liked this episode, you might also be interested in others that discuss prenatal exposures, including our episodes on arsenic, mercury in seafood, and obesity and the environment. [music]