

IV tube chemical linked to premie liver woes

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CHICAGO (AP) — A chemical used in many plastic products and already under scrutiny for potential health risks is suspected of raising the risk of liver problems in premature babies, according to a new study. The small study in a German hospital suggests a chemical known as a phthalate, used in some intravenous feeding bags and tubing, may raise preemies' chances for liver damage.

Rigorous research on phthalates' effects in humans is lacking, and at least one expert found the German study unconvincing. There is no solid proof implicating the phthalate studied, DEHP.

However, the researchers said their results show that hospitals treating newborns or preemies should turn to IV feeding equipment that doesn't contain DEHP. Some hospitals in the United States already have switched.

Premature babies' livers are immature so they are already at risk for liver complications. They also are often fed intravenously, a practice already known to increase liver problems. The new study, published Monday in the journal *Pediatrics*, says one possible reason is DEHP. Animal studies suggest the phthalate chemical may cause various health risks including liver abnormalities and reproductive system damage.

Phthalates (pronounced thowl-ates) are found in many products besides medical supplies — toys, vinyl flooring and cosmetics. They're used to stabilize fragrances and make plastics flexible. Some countries and the state of California have restricted their use.

They are different from bisphenol-A, or BPA, a plastic-hardening chemical that also has raised health concerns and is found in food containers and other products. It's no longer used in many baby bottles.

In a 2002 phthalates advisory, the Food and Drug Administration recommended alternatives for

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patients most at risk from the chemical leeching out of plastic medical equipment, including sick infant boys because of possible damage to developing reproductive organs.

The German study involved 30 mostly premature infants treated in a Mannheim intensive care unit before the hospital switched to feeding equipment without the chemical, and 46 infants treated there afterward.

Serious liver problems involving reduced flow of bile, a digestive fluid produced by the liver, developed in 50 percent of the infants fed with the tubes containing DEHP versus just 13 percent of the other infants.

The researchers took into account other factors that might contribute to liver problems, and the two groups were mostly similar. However, the chemical group was intravenously fed for an average of 26 days, four more days than the other infants.

That is a limitation that could have skewed the results. But that alone "wouldn't have accounted for the magnitude of the difference" between the groups, said Deborah Cory-Slechta, an environmental medicine professor at the University of Rochester medical school.

"This is a pretty strong damnation of" phthalates, she said. "It needs to be replicated. But I still think this makes a very strong case for getting rid of these compounds" in infant intensive care units, she said.

Edmund Crouch, a scientist who served with the Rochester professor on a National Research Council committee on phthalates risks, was skeptical and said the study doesn't rule out other factors that might have caused liver problems.

Steve Risotto of the American Chemistry Council, which represents chemical makers, also disputed the results and said the study "doesn't show any direct cause and effect."

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But Beth Lyman, a pediatric nutrition nurse at Children's Mercy Hospital in Kansas City, called the results intriguing. Her hospital switched to phthalate-free feeding systems more than a decade ago. Lyman said she'd noticed fewer liver problems in IV-fed infants since then, and that the study makes her wonder if the switch might have contributed.

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