

## Jaundice in Newborns Associated With Type 1 Diabetes

Nov. 11, 1999 (Los Angeles) -- It is not unusual for a child in the womb to develop blood proteins that are incompatible with the corresponding proteins in its mother's blood. Often these infants are born with jaundice, a yellowish discoloration of the skin due to an abnormal breakdown of blood products. A new study has found an association between this form of jaundice in newborns and a higher occurrence of diabetes that starts in childhood, also known as type 1 diabetes.

However, "we are nowhere near saying that if you have a particular [type of blood protein], your risk is increased," one of the investigators tells WebMD.

In the paper, published in the October issue of the journal *Diabetes Care*, lead researcher Gisela G. Dahlquist, MD, PhD, of Umeå University Hospital in Sweden, and co-authors from Ireland and Hungary, found a strong association between jaundice caused by incompatibility of the ABO blood protein between mother and infant and the child's subsequent risk of developing type 1 diabetes.

ABO blood proteins determine the type of blood the child will have, such as A, B, or O. Certain situations can arise where the blood type of the child will cause a reaction or be incompatible with the mother's blood type, and thus cause problems. If a severe reaction develops, the child may die.

Incompatibility to Rh factor, another blood protein, had no effect. The Rh factor determines whether your blood type is positive or negative, as in B+ or O-.

Other important [diabetes risk](#) factors included a mother older than 25, a [high blood pressure](#) disorder during [pregnancy](#) known as preeclampsia, and lung disease in the newborn. The authors looked at approximately 900 cases of children who developed diabetes before age 15 from seven countries throughout Europe, and compared them to around 2,300 children without diabetes.

"This is an interesting paper, generally well done, and an exciting confirmation of earlier findings [by the same authors]," says Trevor Orchard, MD, in an interview with WebMD seeking objective comment. "But even though this is a significant finding, we're not sure what proportion of ABO-incompatible mothers will have a child with diabetes." In other words, he says, the actual risk "is small."

"There were some unusual findings in this study," says David Hadden, MD, professor of endocrinology and leader of the study center at Royal Victoria Hospital in Belfast, Northern Ireland. "It is probably not just a statistical chance." However, he says that the risk of [type 1 diabetes](#) in a child is still quite low, about one case in every 500 to 1,000 births both in Europe and the U.S. "This gives a hint of one of the many potential mechanisms behind the development of juvenile type 1 diabetes." adds Orchard, who is with the University of Pittsburgh.

Type 1 diabetes is increasing in Europe, says Hadden. "That's what keeps drawing us along in this study."

Signs of possible diabetes in a child include excessive thirst, failure to eat and grow properly, 'not feeling well,' and frequent urination. If a child has these symptoms, Hadden recommends testing the urine for sugar. "That is often forgotten while doing more sophisticated tests," he says. "It's a very easy diagnosis to make, but somebody has to remember to do it."

Source: <http://diabetes.webmd.com/news/19991111/jaundice-newborns-diabetes>