

Georgia/
Florida

TEDDY TALK

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OUR PARTNERS, OUR HEROES

Do you know that you have been a vital part of one of the largest and longest running T1D studies ever conducted? TEDDY began gathering data in 2004, and over the first 5 years, we screened 418,328 newborn babies through our clinical sites in the US and Europe. A little over 20,000 of those babies, just under 5% of those screened, were found to carry the genes that place them at higher risk for developing type 1 diabetes.

You and your child have been our research partners, along with almost 9,000 other children enrolled in TEDDY all over the world! What you have helped us accomplish is nothing short of amazing, and we could not have done it without you.

TEDDY has discovered that early probiotic supplementation, and vitamin D levels could play a role in determining which children at risk actually begin to develop diabetes autoimmunity. TEDDY has discovered a link between the genes that place children at risk for T1D and the risk for celiac disease. Reporting the medicines you gave your child, helped TEDDY show that antibiotics during the first 4 years of life do not increase risk for T1D or celiac.

TEDDY has now followed those babies who enrolled in the study to the point that our oldest children are reaching age 15...the point at which they have completed the TEDDY study. Every year more children will “graduate” from TEDDY when they turn 15, and that last visit will be one of celebration where we review what you have done to help us, and summarize what TEDDY has learned with your help, and what health information you will carry forward with you about type 1 diabetes, celiac disease, and thyroid function.

We also want to say a very special thank you for being patient and flexible with us during COVID-19. We appreciate your continued dedication to the TEDDY Study.



CURRENT STUDY NUMBERS

The TEDDY Study as a whole has had **374** children diagnosed with type 1 diabetes so far, with **32** of those coming from our Georgia/Florida site. There are currently a total of **843** TEDDY kids who are autoantibody positive.

In Georgia/Florida, **69** kids are autoantibody positive.

VITAMIN D AND RISK OF AUTOIMMUNITY

TEDDY scientists have discovered that low levels of vitamin D in children’s blood, combined with a vitamin D receptor gene marker, are linked to a higher risk of developing islet autoantibodies (IA). Vitamin D levels were measured in TEDDY children during infancy and childhood. Levels from children who were autoantibody positive were compared to a group of similar children who were negative. Blood was also tested for different markers in the vitamin D receptor gene. This gene could affect the way that vitamin D is used by the body. TEDDY children that were autoantibody positive were more likely to have both low levels of vitamin D in their blood and a specific marker in their vitamin D receptor gene. This is exciting because previous studies have been unable to find a link between vitamin D and type 1 diabetes. It is important to note that researchers did not look at whether these children were given vitamin D supplements. Future research is needed to confirm these findings and learn more about the role of the vitamin D receptor gene.

Norris JM, et al, Diabetes. 2018

Please talk to your pediatrician before making any changes to your child’s diet based on this study or any other research you may find.

FOR MORE TEDDY STUDY PUBLICATIONS, PLEASE VISIT: <https://teddy.epi.usf.edu/news>



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ACETAMINOPHEN AND IBUPROFEN USE AMONG YOUNG TEDDY CHILDREN

Scientists at TEDDY wanted to know if the use of fever reducing drugs, like acetaminophen and ibuprofen, were associated with islet autoimmunity. They also wanted to know whether the use of those drugs was different between the US and European TEDDY centers, or if the drugs were given more often to first born children. At each visit, TEDDY asks about the use of medications. We asked parents to tell us which, if any, fever reducing drugs were given to their child and whether the medicine was given because of a fever or not. After looking at the data, TEDDY scientists found that the use of fever reducing drugs was not associated with islet autoimmunity. They also found that the use of fever reducing drugs was significantly higher in the US compared to Europe. The use of acetaminophen was higher in first born children but the use of NSAID drugs such as ibuprofen was lower in first born children.



Lundgren M, et al, BMC Pediatrics. 2017

TEDDY MOM BLOG

One of our Seattle TEDDY staff members has a personal connection to type 1 diabetes. A few years ago, she wrote about her daughter's diagnosis for the Colorado TEDDY site's blog:

A big part of my job as a TEDDY Study Clinical Coordinator is educating families about the signs and symptoms of type 1 diabetes. So, when my almost-5 year old daughter was suddenly peeing like crazy, drinking like crazy, and super cranky, I thought I was imagining things (like the way they say med students end up thinking they have each condition as they learn about it). But over the course of a weekend, I couldn't stop thinking about it, so on Monday, I brought a glucometer home from work. When I checked her blood sugar that night, she was 400. Diabetes. We hopped in the car and went down to Seattle Children's Hospital. We caught it very early, and she was relatively healthy at diagnosis. We completed our diabetes education over the next few days. Having the background of working at the TEDDY Study for 8 years was such a blessing. To understand the auto-immune processes at play, and to know that environmental triggers are yet to be found, removed much of the shock and guilt that seems to sometimes accompany a type 1 diabetes diagnosis. We hit the ground running. Today, Greta is a healthy, happy 11 year old. She manages her diabetes with a pump and continuous glucose monitor. Diabetes is exhausting. The constancy of needing to manage it, day in and day out, is draining. But I have faith that technologies will get better and better, making management easier and easier. In the meantime, we live by one of our favorite expressions from Type 1 Diabetes Camp: "Type 1 may be along for the ride, but it DOESN'T get to drive!"



You can read more posts from the TEDDY Colorado Blog on <http://teddystudymom.blogspot.com/>

CO-OCCURRENCE OF TYPE 1 DIABETES AND CELIAC DISEASE AUTOIMMUNITY

TEDDY scientists recently looked at autoantibody data for type 1 diabetes and celiac disease within the TEDDY Study. Past studies show that children with type 1 diabetes are at a greater risk for developing celiac disease. Scientists wanted to see if the early signs of these diseases behaved in the same way. They thought that having autoantibodies for one disease might impact the chance of getting autoantibodies for the other. They studied autoantibody results on more than 5000 TEDDY participants from 10 months to 9 years old! From that data, they found that children with autoantibodies for both diseases usually developed the autoantibodies for type 1 diabetes before those for celiac disease. This means that there may be shared factors that influence both diseases. Scientists hope to find ways to target both diseases by studying these shared factors in the future.

Hagopian W, et al, Pediatrics. 2017