



## TEDDY Adds a New Antibody Test

Antibodies are signs that the immune system is attacking the insulin producing cells in the pancreas. Antibodies can show up in a child or adult at any time in their life. The length of time between a positive antibody and the development of type 1 diabetes varies for each person. Antibodies can be present for years before someone is diagnosed while others develop diabetes quickly after antibodies appear. The average age to develop diabetes is 8-12 years old, but just like antibodies, type 1 diabetes can occur at any age.

Perhaps your child had an antibody at one visit, that was gone on the following visit. On the other hand, you may have a child that developed an antibody for several visits in a row, we call this a persistent positive antibody. Some children may have two or three positive antibodies. As the number of antibodies increases it usually means the immune system attack on the pancreas is getting stronger. Both persistent and multiple antibodies will increase a child's risk of developing diabetes. It's been shown that 90% of people with type 1 diabetes have had multiple antibodies in the months or years leading up to diagnosis. Sometimes just before type 1 diabetes shows up children can lose an antibody or two because there are fewer insulin producing cells left in the pancreas.

Years ago, researchers discovered the three antibodies we test for at TEDDY and saw that these. Although much improvement in detecting antibodies has been made over the years, occasionally children develop type 1 diabetes who never had these three antibodies. Barbara Davis Center researchers led by the late Dr. John Hutton have more recently discovered a new antibody now called ZnT8. This antibody usually shows up once someone is already positive for another antibody. **TEDDY has started testing for ZnT8 children who are positive for one or more of the other antibodies.** This information will help researchers to estimate diabetes risk in your child more precisely



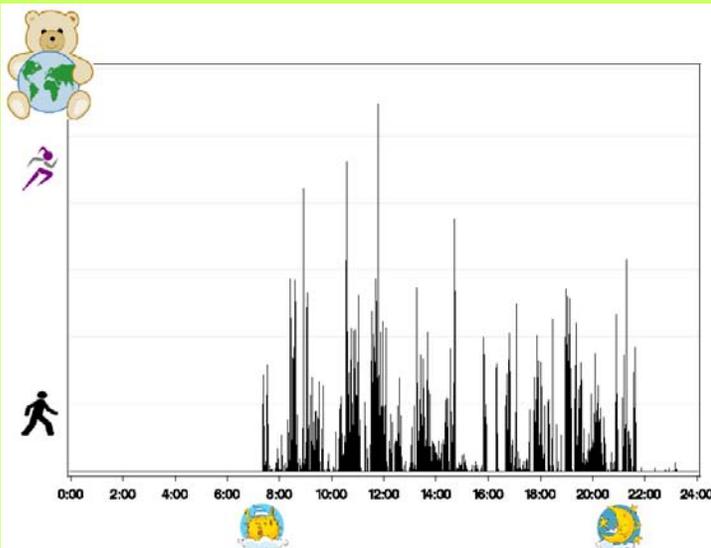
Meet fellow members of the  
TEDDY Colorado Family:

Nickolas  
3 years old

## Activity Monitor Data

Thank you to all of our participants who have been wearing the activity meter. These meters record movement in three directions: forward and backward, side to side, and up and down. They can also detect the amount of movement in all these directions. The meter must detect a minimum amount of movement in order to record activity. That means when a person is sleeping, lying down, or even sitting at a desk in school it may not record any activity.

When we get the meter back from a participant, we upload the recorded activity data to a computer which then makes a graph showing the amount of activity for every minute the meter is worn. By wearing the meter for a week, we hope to get an idea of a participant's typical activity level. We know some days might be more active than others that is why we would like participants to try to wear the meter for a full week. The graph to the left is a sample of one day of recorded activity. You can tell when this person is sleeping and when they wake up and the spikes show where there are bursts of very strong activity. We really appreciate everyone who is helping us collect information on our participant's activity. We are looking forward to using this information in our type 1 diabetes research.



# TEDDY mom blog

TEDDY 

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## COLORADO TEDDY NEWSLETTER

*The Environmental Determinants  
of Diabetes in the Young*

[www.teddystudy.org](http://www.teddystudy.org)  
[www.teddycolorado.org](http://www.teddycolorado.org)

## \$1.8 Million Microbiome Contract

Baylor College of Medicine was chosen to do very important analysis for TEDDY stool and blood samples. They will be looking for microbes (bacteria, viruses or fungi) that could be important for development of type 1 diabetes. This is very exciting news and a big THANK YOU goes to our TEDDY families for collecting all those stool samples. For more information go to the link below which was also posted on TEDDY Colorado's Facebook page in January.



We have a blog written by a TEDDY mom who is also a staff member at one of our sites. Go to [teddystudymom.blogspot.com](http://teddystudymom.blogspot.com) to see blogs about difficult blood draws, poop samples, interviews of adults with celiac/diabetes, parents of children with celiac disease and many more. If you'd like to write a guest post please email [teddy.study@ucdenver.edu](mailto:teddy.study@ucdenver.edu)

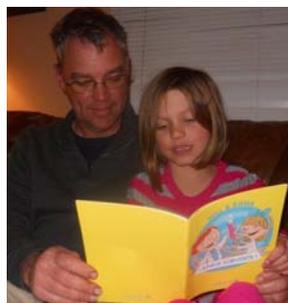
Below is an excerpt from an upcoming TEDDY blog.

### Why TEDDY is important to us, why is it important to you?

Why do we participate in TEDDY? I may be unusual in that I really like research studies. I've participated in several studies since I started working in research. Some studies compensated with money for my time and some did not, I participated just to help out. I also enjoy reading about health related research findings in the news. I'm interested in many health outcomes as type 1 diabetes isn't the only disease my family is at risk of developing.

After I got the phone call that my son has the higher risk genes, a call I've in fact made to parents countless times, I told my husband the news. He just said "Sign him up, why wouldn't we?" I also wanted to have my son participate for many reasons. Some of my reasons are more selfish than others. I really want to know those antibody results and I'm a little anxious each time I receive results. I like that we are a tiny piece of an international research study, that the information we give about our son may someday be part of finding the cause or prevention for type 1 diabetes. I know how important every single TEDDY child is and I'm glad that if my child had to have the high risk genes at least he can be monitored, followed and help this important research study...[See blog for more](#)

## TEDDY Junior Scientist Book!



You may remember Willie as the child-star of "We Go To TEDDY", a book your child received that introduced what happens during a TEDDY visit. A more grown up Will, along with his friend and fellow TEDDY participant Emma, are back in a new series of books. "Will & Emma: The Junior Scientists" is the first installment in this series, created for children 6-7 years old, that will give your child a deeper look at TEDDY.

As your child gets older they can become more involved in their TEDDY visits. To address some of the questions that they may have and to help them feel like a greater part of TEDDY we encourage you to read this book with your child at home, and several times between visits. **We would also recommend that you and your child discuss the simple questions listed at the end of the book to make sure that your child understands TEDDY and what it means to be a part of the study.** We will also have activity books and a pin to initiate your child into the Junior Scientist club! Future books will follow Will and Emma as they continue to explore and learn more in-depth facts about the TEDDY study.

## Gluten Free Mexican Black Bean Lasagna

- 2 tbsp olive oil
- 1 onion, chopped
- 2 jalapeños, chopped
- 1 green bell pepper
- 2 cloves garlic, minced
- 1 15oz canned black beans, drained
- 1 cup frozen corn
- 2 tsp chili powder
- 2 tbsp lime juice
- 1 can red enchilada sauce (Old El Paso Red)
- 9 small corn tortillas
- 12 slices Muenster Cheese



Preheat the oven to 425\*. Heat oil in a large skillet over medium heat. Add onion and cook for 5 minutes. Then, add jalapeños, green bell pepper, and garlic to the skillet and cook for 8 more minutes. Then, stir in beans, corn, chili powder, and lime juice and allow to warm for 5-10 minutes.

Coat the bottom of a 9x13 metal pan with 1/4 of the enchilada sauce. Then, cover the bottom of the pan with 3 tortillas- tear one in half to best cover. Top the tortillas with another 1/4 of the enchilada sauce. Top the tortillas with 1/3 of the bean mixture, then with 4 slices of cheese (layer as evenly as possible). Repeat in a new layer, beginning with the tortillas, two more times. Bake for 25 minutes or until golden brown on top.

This recipe is from a gluten free blog <http://kellisglutenfreekitchen.wordpress.com/>