

## **The Connection Between Stress and Type 1 Diabetes in Children and How You can Prevent It**

Like adults, children also experience stress. While some stress can be positive, by providing one with the energy to tackle a quiz or win a sports game, too much stress can create unnecessary challenges and hardships. New research, led by Sweden's Linköping University, suggests chronic stress could also lead to the development of Type 1 Diabetes in young kids.

The research implies that children who witness crucial traumatic events, such as the divorce or separation of parents, death of a loved one, presence of a new adult in their lives, and experiences of conflict within the home or at school, face a higher risk of developing Type 1 Diabetes.

The researchers examined 10,495 families that included children who were between two years old and fourteen years old and who did not have Type 1 Diabetes before data collection started. By the end of the study, 58 children had developed the condition.

The main goal of the study was to demonstrate whether psychological stress from distressing events and lack of social support played a role in triggering Type 1 Diabetes in the first fourteen years of a child's life. The researchers not only studied a child's stress levels, but also the parents' perception of stress associated with childbearing. To measure this, the researchers provided questions to the parents, which referred to pivotal life events and the worries, stress and social support that parents have.

"This first prospective study concludes that the experience of a serious life event during the first fourteen years of life may be a risk factor for developing Type 1 Diabetes" the Swedish researchers wrote in *Diabetologia*, the journal of *European Association for the Study of Diabetes*.

Although the main cause of Type 1 Diabetes is yet to be known, experts believe both genetics and environment play a role in its onset. For example, a person's DNA may lead to his or her own immune system to attack the beta cells found in the pancreas, the organ responsible for producing insulin.

One hypothesis suggests that kids, whose DNA already indicates a predisposition to developing Type 1 Diabetes, may experience increased insulin resistance when they are exposed to traumatic events.

Another theory proposes that children may suffer from an imbalance in their immune system caused by chronic stress. Chronic stress can lead to higher levels of the stress hormone, cortisol, which then leads to excess insulin production. Simply imagine the immune system as a guard dog. Now imagine a slightly confused or "stressed out" guard dog. He will attack anything and everything that comes his way. So what essentially happens is that the immune system goes into overdrive, causing it to attack the beta cells that help the pancreas function normally.

Other influences connected to the onset of Type 1 Diabetes are birth-weight, early weight gain, diet during infancy and the exposure to viral infection and chronic stress. The rise in Type 1 Diabetes among children all over the world is demanding more research on the

possible environmental factors leading to the development of the disease, making the connection between Type 1 Diabetes and psychological stress in children a number one research priority.

Researchers hope statistics will change with a higher understanding of the abnormal immune system response that causes Type 1 Diabetes in children and young adults. In the meantime, it is extremely important for parents to watch out for symptoms of stress in their children.

Before you do anything, familiarize yourself with the indications of stress in your child. For children, stress can appear through changes in behavior. Common changes include being moody, acting irritable, withdrawing from activities that otherwise gave them pleasure, complaining, worrying more than usual, crying, clinging to a parent or teacher, being overly fearsome, and extreme changes in sleeping and eating routines. For teenagers, it is normal to spend more time with friends than family, but increasingly avoiding one's parents, losing interest in long-term friendships or being hostile at home, may imply that the teen is experiencing stress of some sort.

While negative behavior isn't always linked to chronic stress, negative changes in behavior are usually an obvious indication that something is wrong. It's every parents duty to pick up on their kids' behavioral changes and to make things right!

So, what are some ways you can help your child de-stress?

#### **Don't Over-schedule.**

Over-scheduling can lead to one super overwhelmed kid! Kids today are expected to perform in school for seven hours, excel at extracurricular activities, come home, finish homework, and go to bed just to do it all over again the next day. Kids need downtime to rejuvenate. Their brains and bodies need to rest, and they might not realize this by themselves.

#### **Create a healthy playtime.**

Allow your kid to participate in an activity that involves no competition or lesson. Younger kids will do this naturally, but older kids may forget how to simply play. Combine play with physical activity, which is critical for every individual's well-being. Some ideas include riding your bikes, hiking, throwing around a ball, and swimming.

#### **Make sleep time a priority.**

This could not be stressed more. Sleep is everything. Sleep is vital for everything from minimizing stress to boosting mood to improving school performance. Try not to stress the importance of sleep, but instead creating an environment that facilitates it.

Preferably keep the TV and other electronic gadgets outside your child's bedroom. Did you know that staring at cell phones, iPads or TV before hitting the sack can hamper one's sleep by suppressing melatonin by 22%? No. More. Gadgets. Before. Bedtime.

#### **Help your kids listen to their bodies.**

While it's totally normal for children to say they have butterflies in their stomach on the first day of school, leaving class because their stomach hurts or complaining about continuous headaches is a sign there's something wrong about their daily schedule. It could be anything, so carefully re-plan a daily schedule and keep note of improvement in your child's moods, behavior and health.

**Help your kids truly focus.**

This very basic idea is based on a type of meditation called *mindfulness*. “It’s about focusing on the body’s physical sensations, as opposed to the mind’s runaway thoughts and feelings,” says Danny Dreyer, a mind-body educator in Asheville, North Carolina, and coauthor of *Chi Running*. You can start by asking your child to pick an object in the house, or a plant in the garden. Encourage your child to truly notice the object for a good 3-4 minutes without any distractions.

**Laugh the stress away!**

When stressed out, the body constricts blood vessels, elevates the production of potentially damaging stress hormones, and raises blood pressure. Does that sound good? Nope. Don’t worry! There’s an easy way to prevent that from happening.

Short periods of stress are normal and not dangerous to one’s health, but long-term stress weakens the immune system, making one more susceptible to high blood pressure, diabetes and depression. Laughter increases the number of antibody-producing cells we have working for us, and enhances the effectiveness of T cells. All this means is a stronger immune system, as well as fewer negative physical and mental effects of stress.

**Give your kids Vitamin “G”.**

How about that? Children who spend more time in *green* spaces have lower stress levels. Outdoor experiences promote brain development and are often linked to heightened imagination, curiosity, and a sense of wonder. Go on a nature walk together, smell the grass, listen to the birds chirping, have a picnic, and have FUN! There’s nothing like spending playtime outdoors, and that’s exactly why it’s every adult’s favorite childhood memory.

**Repeat soothing words.**

This one might seem a bit silly to your kid, but it’s certainly worth a try! This is the kid version of a mantra that involves the calming repetition of certain special words. Combine deep breathing with repeating soothing phrases out loud. Words like “relax” and “calm” are a great way to start. Your child will eventually be able to do this exercise silently, so he or she can use it to feel peaceful anywhere and anytime.

**De-stress yourself.**

Stress is contagious. It’s as simple as that. Stressed out parents can lead to stressed out kids. If you can show your kids how well you deal with your problems, they’ll pick up on your stress-management skills! No one wants a disorganized home to wake up to, so set a calm tone every morning.

Have you ever noticed your anxiety has the effect of making your kids a little slow and dull? “The more you rush in the morning, the slower your kids will move,” says Kirk Martin, a behavioral consultant in Nashville, TN and executive director of Celebrate Calm, an organization that specializes in working with kids with learning disabilities. So if you notice your kid stalling or being a bit aloof, reassure your kid of positivity and support by placing a hand on the arm or making eye contact with a smile on your face. Connecting with your kids is key to a happier, relaxed home environment.

**De-stress your morning routine.**

Do not wait until the school year starts to attempt to get on a new schedule. Never, EVER do

that. Ease your child back into a routine a week or two before school starts. Slowly push back bedtime, which will make your child get up earlier as the week progresses. Also try to minimize morning time to showering, breakfast and ample time for your child to get to school on time without panicking or racing. For example, make your kid pack his or her backpack, take out clothes for the morning, set the alarm clock and obviously, have homework finished before bedtime.

Even if you woke up on the wrong side of the bed, throw on a smile and make a light conversation with your kids before you send them off to school. It's surprising how a good morning start can pay off for the rest of the day, or week!

### **Follow the leader.**

Teachers are great at making jobs seem exciting and enjoyable and this is a trick parents can learn from. If you have more than one kid, let them take turns being the morning leader. Create a weekly schedule where each child gets to be the leader of the day throughout the week. The tasks of the leader should include healthy chores like receiving the mail, doing the dishes, and motivating everyone to leave the house on time for school and work. You can also reward the leader by letting him or her choose the radio station on the way to school.

Sharing is caring though, so don't let your kids compete for the task of the leader. Always encourage sharing, kindness and respect for the other sibling or siblings before anything else. Siblings who fight less and get along better, have an easier time dealing with stress.

### **Use music as a positive reinforcement.**

The right kind of music can give kids the healthy energetic boost they need to get through the morning routine. Try to create a play list that includes songs your children enjoy. Have it play for about 10-15 minutes. Don't forget to enjoy the music yourself. Sharing interests is a great way to connect with your child.

### **Talk to your kids – prepare them for their mistakes.**

For kids, a lot of stress comes from the fear of making terrible mistakes. Don't let them dwell on their mistakes. Remind your kids it's okay to not know how to do something right. Help your child learn to figure out the next steps after a bad decision. Help them figure out how to fix it, make amends, learn the lesson and simply, move on. In Bob Marley's words, don't worry, be happy! An excellent choice for the morning boost by the way.

### **Switch to action mode.**

Sometimes, you're so caught up in your feelings that you never get around to dealing with them. It's the same, if not worse, for kids. Kids not only feel weighed down by stress, they have no clue how to deal with, let alone fix their worries. When you help your kids identify their problems, also help them realize that sitting around worrying isn't the most fun thing in the world. Switch to action mode as soon as possible. Taking action can help your kids feel more hopeful and less anxious.

It's often easier for children to verbalize their feelings in diaries, journals or letters. And no, it's not only specific to little girls. Ask your child to make a list of what is worrying them, what they think they can do to take action, and encourage them to ask someone for help.

There you have it – the strongest armor to protect your child from chronic stress and its alarming effects on physical and mental health. Next time you sense your kid worrying, don't

worry. You're more than prepared to provide your kid with all the techniques of fighting unwanted stress. Here's to a healthy start and a stress-free child!

**Suggested Reading**

*Worry Less in 3 Steps* by KidsHealth

*The Mindful Child* by Susan Kaiser Greenland

**- Fatima Khan**