

## **Type 1 Diabetes Research and Management**

### **Breakthrough T1D. (n.d.). Early detection.**

<https://www.breakthrough1d.org/early-detection/> This article explains how important it is to catch Type 1 Diabetes (T1D) before a person ends up in the hospital with an emergency. It talks about the stages of the disease and how screening for certain markers in the blood can help families prepare. This is a great source for showing how testing can change the way the disease is diagnosed. This reminds me of my little brother feeling sick but his diagnosis wasn't identified so we were unaware but this really goes into his experience and how it may look, the precautions and awareness.

### **Breakthrough T1D. (n.d.). T1D technology.**

<https://www.breakthrough1d.org/daily-management/t1d-technology/> This site gives a rundown of the latest tech people use to stay healthy, like insulin pumps and continuous glucose monitors (CGMs). It's really helpful for understanding how "artificial pancreas" systems work to automate insulin delivery. It shows how much easier it is to manage the disease now compared to when people only had manual shots. Since this is about my younger brother, it really is beneficial because he uses insulin with his glucose monitor (CGMs). I feel as though this is helpful with me as well because in order to present my capstone, I would need more knowledge and education when it comes to specific topics, building off of what I already know because of my brother.

### **Children with Diabetes. (n.d.). Welcome to children with diabetes.**

<https://childrenwithdiabetes.com/> This website is more of a community resource than a medical textbook. It offers support for families and kids who are actually living with the condition. It's useful for my research because it focuses on the social and emotional side of diabetes, like going to school or finding a community, rather than just the biology of it. This is helpful because this is based off of children and my topic, along with my device is based on children so this is educational and a good source to use.

### **City of Hope. (n.d.). The Wanek Family Project to cure type 1 diabetes.**

<https://www.cityofhope.org/research/riggs-institute/wanek-project> This source is all about the search for a cure. It describes a specific research project that is looking into immunotherapy and how to get the body to start making insulin again. It is a bit more scientific than the others, but it's important because it highlights the hope for a future without T1D. This is just important scientifically, future reference to what can be done besides another product for type 1 diabetes being invented.

**DeVries, J. H. (2009). Combining insulin pumps and continuous glucose monitors. PubMed Central (PMC).** <https://pmc.ncbi.nlm.nih.gov/articles/PMC2771492/> This is a

medical article that looks at the history and development of diabetes tech. It focuses on how much better patients do when they use a pump and a monitor together. Even though it's an older study, it provides a lot of the scientific proof needed to show why technology is so important in modern treatment. This is great because I can take what is being provided from this source about type 1 diabetes but advancing and making it better than what it already is, specifically for children.

**Diabetes-M. (n.d.). Diabetes in children and adults: What are the main distinctions?**

<https://diabetes-m.com/blog/news/diabetes-children-adults-distinctions/> This blog post compares how kids and adults experience diabetes differently. It mentions that while the biology is the same, kids have a harder time because they are growing and need more help from parents or teachers. This is a good source for showing the different lifestyle challenges based on age. This connects to the educational purpose of my capstone because I also wanna discuss type 1 diabetes vs type 2, which type 2 is common for me because diabetes genetically runs in my family.

**Lucier, J., & Weinstock, R. S. (2023). Diabetes in children and adolescents. NCBI**

**Bookshelf.** <https://www.ncbi.nlm.nih.gov/books/NBK597411/> This is a very detailed academic source that covers the statistics and medical definitions of diabetes in young people. It explains the difference between Type 1 and Type 2 and discusses how doctors diagnose it. This is probably the most "heavy" source, but it provides the best facts for a formal paper. This is just another source that is good with learning about type 1 and type 2 diabetes on their differences, their diagnoses because even though there is a deeper part of my capstone, I still wanna educate people on how important it is to acknowledge and understand not only the difference but what they are.

**Mayo Clinic. (2023). Type 1 diabetes in children: Diagnosis & treatment.**

<https://www.mayoclinic.org/diseases-conditions/type-1-diabetes-in-children/diagnosis-treatment/drc-20355312> This page from the Mayo Clinic focuses on what happens after a kid is diagnosed. It covers things like carb counting, insulin types, and how to monitor blood sugar. It's a very reliable source that gives a clear picture of what a patient's daily life actually looks like. Since my brother's process of diabetes was quite complicated, this gives me more to work with even though it may be similar to what he have experienced because this is about the "after diagnosis effect".

**Mayo Clinic. (2023). Type 1 diabetes: Symptoms & causes.**

<https://www.mayoclinic.org/diseases-conditions/type-1-diabetes/symptoms-causes/syc-20353011> This is another Mayo Clinic source, but it focuses on the "why" and the "how." It lists the warning signs, like being really thirsty or losing weight for no reason. It's useful for explaining the biology of how the immune system accidentally attacks the pancreas. This really gives caution about what can happen with this diagnosis prior, more so signs and what is happening with the body. This is just educational even though this isn't something to escape but it is something that anyone should be aware of and take precautions as much as possible even though type 1 diabetes cannot be fixed but it can be navigated.

**National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). (n.d.). Clinical research in type 1 diabetes.**

<https://www.niddk.nih.gov/research-funding/research-programs/clinical-research-type-1-diabetes>

This government website lists all the different research programs being funded right now. It talks about "TrialNet" and other big studies. This is a good source to show that the government is actively spending money to find better treatments and, eventually, a cure. This isn't as helpful to my capstone because we aren't speaking about how to "cure" but how to navigate through diabetes because in reality, this cannot be cured by far, it is about adaptation and my device would help children feel normal, making it kid-friendly.