

Using Problem Solving for Healing

Haley Brouwer is a research scientist who develops technology that helps heal muscle and skeletal injuries faster. Haley became interested in this type of work as a child when she developed Type 1 diabetes. From her dependency on insulin, an insulin pump, and her blood glucose meter, she became fascinated with being a part of science and engineering advancements that have an impact on someone's life. "I want to be able to say that I invested in something that saved someone's life or at least made their life a little better."

Haley participated in PLTW courses in high school and appreciates the development of out-of-the-box thinking those classes promoted. "The structure of the classes required me to investigate, research, and problem-solve rather than memorize and regurgitate like so many other classes."

Haley further honed her research and engineering skills as she majored in biomedical engineering at Purdue University. While a student there, she explored her workplace preferences by interning in a few different engineering positions. "I highly recommend that students seek out opportunities to co-op or intern because it's a great way to find out what you do and don't like without being committed to a full-time position."

Haley is a creative yet analytical person, which is why designing medical devices is a good fit for her. Her workday includes working with a team to discuss new project ideas, completing literature reviews, designing and conducting experiments to test products, and then sharing those results with others. "What I love about my job is that it is both creative and logical. I split my time between working at a desk and working in the laboratory. I never get bored because there are constantly new projects that require me to learn a new technique or skill set."

Haley's Journey

