For many women with Accidental Bowel Leakage (ABL), the loss of bowel control becomes the controlling force in their lives. Fearing an embarrassing accident, many choose to stay close to home and miss out on the activities they love.

Recognizing an unmet need, a San Francisco Bay Area-based startup called Pelvalon developed a non-surgical solution that provides immediate relief. Eclipse is the first vaginal insert designed to provide bowel control. The insert is placed in the same location as a tampon and can be removed at any time. It is designed to control the rectum and prevent stool from passing unexpectedly.

Pelvalon came to Design Concepts with a detachable pump prototype made from “off-the-shelf” components, looking for assistance with usability, industrial design and the engineering design necessary for manufacture.

Our first task was to truly understand the users and set the design parameters. Our research and design team interviewed participants and even tried Eclipse themselves to gain empathy. They concluded that the pump needed to convey a balance of friendliness, femininity and comfort with enough medical cues to look professional. Because of the stigma attached to ABL, the pump also needed to be small, discreet and innocuous. The team created a brand language and form that’s closer to what you might see at the cosmetics counter and sized it to fit in a purse.

Our engineering team worked to take the first prototype to the next level, improving usability and reliability. The biggest challenge was the design and manufacture of the cap that protects the ports on the top of the pump. The cap had to be easy to operate with one hand and remain attached (since the pump is used in public restrooms), and have a high-quality feel to the opening/closing. Extra care had to be taken with this part of the design of the pump, as the pump had to be cleanable according to the instructions for use. Once physical units were produced, they would need to pass rigorous testing to ensure easy cleaning per FDA guidelines.

The design and engineering team helped Pelvalon identify the right materials and manufacturer to bring the Eclipse System to market. This was a fast project, approximately six months in total, but the results have been life-changing for many women.