3D Printed Carpal Tunnel Splint

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A splint was designed to help absolve pain caused in the median nerve by Carpal Tunnel Syndrome. To be able to address this need, we needed to research what angle the wrist is supposed to be placed. Current models are too hindering when it comes to everyday activity, which is a major problem for people who use their hands every day. According to the United States Federal Labor Statistics five to ten people per 10,000 will have to take time off work due to carpal tunnel syndrome, and carpal tunnel is now more responsible for work absences than lower back pain (Lerner, 2014). Since the idea of making a splint started, many modifications have been made to our design. Our major parts of the splint are its modular design and how comfortable it is to wear. The biggest decision came when we decided to change the suspension method to alleviate pressure on the wrist. Our brace fulfills all our needs while still meeting the constant of the wrist angle. As of now no weaknesses have been found, but strength of brace could always be improved. Through the design process, the brace has been refined and improved to what it has become. Through the use of elastic, the splint stays firmly on the arm without moving making it able to withstand the force of the user's wrist movement.

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