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# FORELIMB STRENGTH METER — A DEVICE TO MEASURE INDIVIDUAL FORELIMB STRENGTH IN RATS

*Peter C. Andres*

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The elbow is highly susceptible to post traumatic joint contracture (PTJC) and treating elbow contracture is a challenging clinical problem. We previously established an animal model in the rat elbow that allows us to study the development of PTJC in the elbow and explore rehabilitation methods. The objective of this study was to create a device that would measure individual forelimb strength in rats. By comparing control limbs to injured limbs we will be able to evaluate the magnitude of functional recovery in the injured animals. These data will be valuable in understanding the effectiveness of various rehabilitation strategies. This project consisted of designing and constructing a forelimb strength device, developing an experimental protocol for device use, testing and evaluating the device design using control animals, animal handling and data analysis.