

Title: The Outcome of Sports Vision Training on Collegiate
Softball Players

NCT number: Not assigned.

Protocol ID: 2022-1225-EXP

Date: 04 Aug 2023

Research statistical analysis plan.

This is a within-subject before-after design to assess the efficacy of sports vision training on functional visual skills. Parametric repeated measures ANOVA will be used with post-hoc t-tests corrected for multiple comparisons. After completion 2 main outcomes will be evaluated: 1) a Senaptec Sensory re-evaluation will be performed to compare visual skill performance to the baseline evaluation. Results are compared to other Division 1 softball athletes in Senaptec's database and percentiles are given for each individual athlete for each skill evaluated. 2) a comparison of baseline training performance to post training performance in sports vision training activities, such as Dynavision and Senaptec Sensory Trainer activities. To analyze change in training performance, a student's T-test will be utilized to measure effect size and look for statistical significance. Analysis will utilize both individual and team comparisons. We will evaluate the impact of the sports vision program by comparing baseline values to final values for each primary outcome measure. A recommendation from literature review that we will heed, is suggesting we need to adjust the significance level, to account for multiple tests being performed, the multiple comparison correction so that statistics are not artificially inflated to significance when they are truly not.