The Effect of Instrumental Rehearsal on Blood Glucose Levels of Five Low Brass Players

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Abstract

Health issues among professional and student musicians has become an increasing challenge, and educators and authors alike have voiced concerns about the reported health problems. Among these are the effects of instrumental performance on the body's chemistry. The session will focus on one facet of the musician's biochemical state, blood glucose. Blood glucose is the sugar within the bloodstream, which is directly influenced by physical activity, stress, food, and other stimuli. The presentation will explore the relationship between instrumental rehearsal and blood glucose movement.

The presentation will be an in depth examination of five low brass musicians, and will discuss multiple confounding variables, and possible relationships between measured variables. The participants were five low brass students from a midwestern university, from the ages of XX-33, and were members of a university ensemble. They checked their glucose levels before and after rehearsals recording the results, and responded to an author created tool, which gathered descriptive and participant perceptions on two distinct variables. The data was gathered over a three-month period during the course of an average college performance cycle.

The presentation will conclude with a discussion of the results covering all data points. In descriptive data, an observed difference is seen between rehearsal and non-rehearsal days (rehearsal days: range -110—44, mean -11.09, non-rehearsal days: range -48—16, mean 7.57). While there was an obvious difference between the rehearsal and non-rehearsal days, a significant relationship was seen between perceived anxiety and ,increased blood glucose, but a large number of variables prevented a definitive answer to the null hypothesis. The study presented many possible trends, and has increased the understanding of the biochemical changes that occur during instrumental performance. Future modifications to the study will increase the understanding this physical change in musicians, and possibly lead to a causal relationship.