

The benefits that exercise provides to an individual's physical health are very well documented and have been known for a long time. Regular exercise also leads to adaptations that enhance the exercise itself. These adaptations depend on the style of exercise that is being done. In order to gain specific adaptations, one needs to train at a specific workload. However, it can be difficult to monitor exercise intensity in the field. Many of the biological markers of improvement are challenging measure and require invasive measuring techniques that are only attainable in a laboratory setting. Blood lactate is a common measure used in laboratory settings. However, this requires a finger-prick blood sample. At Castleton, we use the Nova Biomedical Lactate Plus portable analyzer. While valid and reliable, it's invasive and requires the presence of skilled technicians. The BSX INSIGHT device uses infrared technology to detect lactate levels during exercise, negating the need to use invasive methods. The purpose of this study is to determine the validity and reliability of the BSX INSIGHT in estimating blood lactate during submaximal exercise.