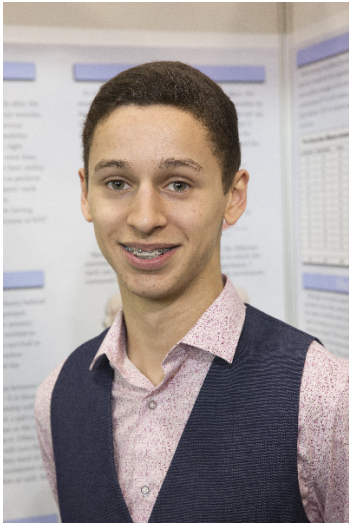


# CWSF 2019 - Fredericton, New Brunswick



## Sebastien Paradis

### The Effect of Eye Movement on Neck Mobility

**Challenge:** Health

**Category:** Intermediate

**Region:** Northwestern Ontario

**City:** Thunder Bay, ON

**School:** St. Ignatius S.S.

**Abstract:** I studied the relationship between eye and neck movements. The intrinsic muscles of the eye and the suboccipital muscles of the neck are not only related functionally but improving the mobility of one group seemingly improves the mobility of the other. This realization could potentially lead to better ways of treating neck dysfunctions, as well as having use in robotics and other biomedical applications.

### Biography

I am a student at Saint Ignatius High School in Thunder Bay. For as long as I can remember, I have been passionate about the sciences, notably biology and physiology. I am an overachieving multisport student-athlete. I have won numerous awards in both academic and athletic fields, such as being place on the Honour Roll and being named Athlete of the Year at St. Ignatius. The original inspiration for my project came from an appointment with my father, physiotherapist Serge Paradis. When asked to look over my shoulder, I began to notice that the turning of my neck started with the pointing of my eyes in the direction in which I was turning. I quickly began to speculate that there was a connection between the two. This thought quickly snowballed into my science fair project. Future research would consist of experimenting on participants with neck mobility dysfunctions to determine whether or not the eye can be used as an alternative treatment to painful neck problems. My advice for students thinking about doing a science fair project is that as long as you do research on a topic that you are passionate about, the project will be easier and more enjoyable.

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