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*Ewww! What's on My Shoe?*

The purpose of this project was to discover if bacteria are more predominant on the laces, inside toe, or outside tongue of a worn tennis shoe. I hypothesized that if testing the laces, inside toe, and outside tongue of a worn tennis shoe for bacteria, then the bacteria will be more predominant on the shoelaces. This experiment involved collecting bacteria from the tennis shoes and letting it grow in the Petri dishes for 2 days in the incubator at 35 degrees Celsius. I counted the number of colonies after a 2 day period to determine if the laces, inside toe, or outside tongue of the shoe contained the most bacteria. The final step was to transfer the bacteria to a Blood Agar Petri dish and a Salt Agar Petri dish and letting it grow for 1 day in the incubator at 35 degrees Celsius to determine the identity of the bacteria. The data collected did not support the original hypothesis. The data shows that from the 3 pairs of worn tennis shoes, the laces had on average 19.2 bacteria colonies. The tongues from the same shoes had on average 64.8 colonies, and the inside toe area had on average 237.7 colonies. These findings lead me to conclude that the laces, outside tongue, and inside toe area of a worn tennis shoe all had bacteria, but the inside toe area had the most.