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*The Effect of Altitude on Hematocrit*

The purpose of this study was to determine if altitude has an effect on hematocrit levels in humans and whether this can be demonstrated in an altitude difference of 2500 feet. Hematocrit is easily measured with a single drop of blood. Using a simple centrifuge, one can separate the red blood cells from the blood plasma and find the percentage of blood volume that is made up of red blood cells. Using standard medical procedure and equipment, 20 samples were collected from people living at an altitude of 5020 feet, and 23 samples were collected from people living at an altitude of 7522 feet. Other data were gathered for secondary analysis: age, gender, height, weight, and history of altitude sickness. Hematocrit levels ranged from 37% to 54% (dependent variable). Body Mass Index (BMI) levels were calculated and ranged from 14 to 35. Hematocrit levels were generally higher in the samples from individuals living at the higher altitude. From this study, one may conclude that people living at higher altitude have more red blood cells per volume in their blood. The results suggest that other variables affect hematocrit as well including BMI, gender, and hydration status.