ABSTRACT

TITLE:	Nutritional Factors Comparing Predisposition to the Development of Insulin-Resistance in Native Americans & Caucasian College Students
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ABSTRACT: It is known that Native Americans are more likely to develop diabetes when compared to Caucasians. What is not known is why. This study compares the differences in diet, and lifestyle between Native American and Caucasian students at Fort Lewis College in order to determine the variables responsible for the differences in prevalence of diabetes between the two races. BMI was used to match Native American subjects to Caucasian subjects. Subjects had height, weight, %body fat and waist-to-hip measurements taken, and filled out a nutritional questionnaire. Differences between Native Americans and Caucasians when comparing % body fat, waist-to hip rations, carbohydrate, protein and fat intake, and exercise were analyzed. We found that Native Americans (NA) consumed significantly more carbohydrates (mean (NA)=54.97% + 7.87 vs. mean (CA)= 44.45% + 9.19; p=0.007), which corresponded to a higher percent body fat (mean (NA)=20.90% + 5.77 vs. mean (CA)=18.65% + 5.18; p= 0.05) and higher waist to hip ratios (mean (NA)= 0.82 + 0.08 vs. mean (CA) 0.80+ 0.065; p=0.059). Since previous studies had shown the link between inflammation and diabetes we believe that Native Americans may be more prone to developing diabetes because of a high carbohydrate diet leading to increased body fat specifically in the abdominal region, which is linked to increased inflammation in the body and the subsequent development of insulin resistance.