

Prevalence of Metabolic Syndrome Risk Factors in College-Aged Students

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The National Cholesterol Education Program Adult Treatment Panel III has established criteria for metabolic syndrome, including abdominal obesity and elevated triglycerides, High Density Lipoprotein (HDL) cholesterol, blood pressure, and impaired fasting glucose. A participant with metabolic syndrome would test positive for at least three risk factors. **Purpose:** To determine prevalence of metabolic syndrome in college-aged men and women. **Methods:** Three-hundred Kinesiology Physical Activity Program students were tested for metabolic syndrome risk factors. Fasting lipid and glucose values were obtained via finger stick. Blood was collected into a 40 μ L capillary tube for analysis with a commercially available analyzer. Waist girth was measured with a tension-regulated tape measure. Blood pressure was auscultated following standard procedures. **Results:** Out of 300 students, 12 (4.0%) of the students met criteria for metabolic syndrome. Out of the total 150 males studied, 1.33% had metabolic syndrome, 6.67% tested positive for at least two risk factors, 25.3% had at least one risk factor, and 66.7% showed no risks for metabolic syndrome. In males, 4.0% met criteria for abdominal obesity, 16.0% had elevated triglyceride levels, 14.7% demonstrated below recommended HDL levels, 2.0% had elevated blood pressure, and 6.0% had elevated glucose levels. In females, 6.67% demonstrated characteristics of metabolic syndrome, 20.7% met criteria for 2 risk factors, 26.7% met criteria for one risk factor, and less than half (46.0%) met criteria for 0 risk factors. Of women, 24.6% met criteria for abdominal obesity, 14.0% had elevated triglyceride levels, 34.7% demonstrated below recommended HDL levels, 0.67% had elevated blood pressure, and 10.0% had elevated glucose levels. **Conclusion:** In the cohort of 150 men (average age 21.2) and 150 women (average age 21.6), 4.0% met criteria for metabolic syndrome, 13.7% met criteria for at least two risk factors, 26.0% for at least one risk factor, and 56.3% were negative for any factors. These findings stress the importance of having college-aged adults participate in health screenings, specifically testing for fasting lipids, body fat, and glucose measures.