Waist and Triglyceride Measurements Help Gauge Cardiovascular Disease Risk in HIV

October 12, 2011

According to a new study conducted by Canadian and Italian researchers published online by *PLoS One*, two simple measurements can help determine if you're at an increased risk for cardiovascular disease (CVD): your waist circumference combined with your triglyceride level.

HIV-positive men with both a waist circumference of 35.5 inches or higher and a triglyceride level above 175 milligrams per deciliter (mg/dL) of blood are at an increased risk for CVD, compared with HIV-positive men with lower measurements, the study suggests. Among HIV-positive women, having both a waist circumference above 33.5 inches and a triglyceride level above 130 mg/dL signifies an increased risk of CVD.

Research has consistently shown that people living with HIV, particularly those with various symptoms consistent with lipodystrophy, face an increased risk of CVD compared with their HIV-negative peers. What hasn't been clear is which laboratory values and other measurements to use—readily and easily—to determine whether a person living with HIV is, in fact, at risk for CVD-related health problems.

One particular set of measurements is recommended for HIV-negative individuals. It is known as the hypertriglyceridemic waist phenotype, a combination of two measurements: a person's waist circumference and his or her triglyceride level.

To explore the value of these measurements in a population of people living with HIV, Peter M. Janiszewski, PhD, of Queen's University in Kingston, Ontario, and his colleagues analyzed waist circumference and triglyceride data collected at a single time point from 1,481 HIV-positive men and 841 HIV-positive women receiving metabolic-related care between 2005 and 2009.

Based on cut-off values that have previously been shown to be associated with CVD risk, a high waist circumference was considered to be 90 cm (35.5 inches) for the men and 85 cm (33.5 inches) for the women included in the analysis. High triglycerides were 2.0 micromols per liter (175 mg/dL, the common American measurement) for men and 1.5 mmol/L (130 mg/dL) for women.

Roughly 27 percent of the men and 20 percent of the women had both high waist circumferences and high triglyceride levels. Compared with those with high waist circumferences only, high triglycerides only, or waist circumferences and triglyceride levels below the defined cut-offs, individuals with both high waist circumferences and triglycerides were significantly more likely to have established risk factors for CVD. These factors included type-2 diabetes, an increased Framingham risk score and metabolic syndrome, which is a cluster of symptoms such as increased blood pressure, a high blood sugar level, excess body fat around the waist and/or abnormal cholesterol levels.

Specifically, the prevalence of metabolic syndrome was significantly higher in the men with high waist circumferences and triglycerides than in any other waist circumference/triglyceride group: 48 percent compared with 3.6 to 31.9 percent. Additionally, the prevalence of type-2 diabetes was highest in the high waist circumference/triglyceride group compared to all groups (16.2 percent versus 5.5 to 7.2 percent). The average Framingham risk score was also significantly higher in the high waist circumference/triglyceride men's group in comparison to all other groups (10.3 percent versus 5.8 to 9.5 percent).

"The combination of waist circumference and triglycerides was shown to discriminate high-risk and low-risk HIV-infected men and women," the authors conclude. "The present findings suggest a utility of waist circumference combined with triglyceride levels as a simple clinical tool for discerning the severity of lipodystrophy and associated cardiovascular risk."

© 2026 Smart + Strong All Rights Reserved.
http://beta.docker.poz.com/article/hiv-waist-triglycerides-21304-9666