

HYPERTRIGLYCERIDEMIC WAIST AS A SCREENING TOOL FOR CVD RISK IN AUSTRALIAN INDIGENOUS WOMEN

Yumiko Hiura, BSc; Fay Acklin, BSc; Jennifer Newman, BSc; Kate Steinbeck, PhD; Ian D. Caterson, PhD; Deepika Mahajan, PhD; Kaye Brock, PhD; Margaret A. Bermingham, PhD

In Australia, as well as many other communities around the world, the prevalence of obesity is increasing in both the general and native populations. Scientists have found that obesity is associated with increased medical ill health, including high blood pressure, diabetes, early heart disease, and abnormal blood fats (elevated low-density lipoprotein cholesterol [LDL] and triglycerides [TG] and reduced high-density lipoprotein cholesterol [HDL]).

It is important to identify individuals at high risk of cardiovascular disease (CVD), so that doctors can recommend, and patients can follow, a course of action to stop heart disease from occurring. To help in this identification process, researchers have examined several risk factors, many of which are costly to measure. Mindful of costs, training, and test accessibility for those in rural or remote locations, the researchers of this study tried to find a less expensive solution to identify persons at risk of heart disease. They explored the possibility of using the measurement of a person's waist and the concentration of triglyc-

erides (TG) as a predictor of heart disease among native Australian women. Other studies have demonstrated that this group of women is known to have an unusually high prevalence of obesity, hyperinsulinemia, abnormal blood fats, and diabetes.

Subjects in this study were 92 native Australian women from the state of New South Wales, Australia; 30% were not obese. In one phase of the study, women were grouped according to size of waist and TG levels. Seventy-one percent of women with both waist circumference above 95 cm and TG levels above 2.0 mmol/L, had higher levels of insulin and apo B, both indicators of heart disease risk, placing them at an 8 times greater risk of heart disease than women with smaller waist sizes and normal TG levels.

This study confirms that this screening tool, named hypertriglyceridemic waist, can be an effective way to determine the heart disease risk of native Australian women. Both waist and triglyceride measurements are easy to take and can be determined with minimal training in remote locations.