



From Heartwire

## New Joint Statement Streamlines Definition of Metabolic Syndrome

Michael O'Riordan

October 8, 2009 (Brussels, Belgium) — A new joint statement from a number of professional organizations has identified specific criteria for the clinical diagnosis of the metabolic syndrome, tightening up the definition, which previously differed from one organization to the next [1].

The statement, published online October 5, 2009 in *Circulation*, includes the participation of the **International Diabetes Federation (IDF)**, the **National Heart, Lung, and Blood Institute (NHLBI)**, the **World Heart Federation**, the **International Atherosclerosis Society**, and the **American Heart Association (AHA)** and is an attempt to eliminate some of the confusion regarding how to identify patients with the syndrome.

"This paper represents an attempt to make the definition global," **Dr Robert Eckel** (University of Colorado, Denver), one of the authors of the new report, told **heartwire**. "The IDF definition and the **[National Cholesterol Education Program Adult Treatment Panel] ATP III** definition have been the two that have been utilized most frequently, and now the different organizations--the IDF, the International Atherosclerosis Society, the NHLBI, and the AHA--have all signed on to a single definition. I think that's a step forward in terms of not continuing to confuse people who are working in this field."

Specifically, the new metabolic-syndrome definition streamlines previous differences related to abdominal obesity as defined by measurements in waist circumference. Substantial disparities existed between the previous IDF and the ATP III definitions of what constituted an excessively large waist circumference, by as much as 8 cm between the two groups, but these have been amended. Now, the criteria for elevated waist circumference are based on population- and country-specific definitions, which, although streamlined, do leave some work to be done, said Eckel.

"The problem that still exists is that regional differences around the world may be substantial in terms of what waist circumference confers additional risk for heart disease and diabetes," he said. "The new definition relies on different geographic regions, or different countries, to drill down into their own databases in terms of relating waist circumference to risk." Eckel noted that the IDF previously considered elevations in waist circumference mandatory when defining metabolic syndrome, although the ATP III did not. Now, waist circumference is just one of five criteria that physicians can use when diagnosing the metabolic syndrome. Patients with three of the five criteria--including elevated waist circumference, elevated triglycerides, reduced HDL-cholesterol levels, elevated blood pressure, and elevated fasting-glucose levels--are considered to have the syndrome.

### Criteria for Clinical Diagnosis of the Metabolic Syndrome

| Measure  | Categorical cut points                       |
|--|--|
| Elevated waist circumference   | Population- and country-specific definitions |
| Elevated triglycerides (drug treatment for elevated triglycerides is an alternate indicator) | ≥150 mg/dL                                   |
| Reduced HDL cholesterol (drug treatment for reduced HDL                                      | <40 mg/dL for males and <50                  |

|   |  |
|---|--|
| <b>cholesterol is an alternate indicator)</b>   | mg/dL for females  |
| <b>Elevated blood pressure (drug treatment for elevated blood pressure is an alternate indicator)</b> | Systolic $\geq$ 130 mm Hg and/or diastolic $\geq$ 85 mm Hg |
| <b>Elevated fasting glucose (drug treatment for elevated glucose is an alternate indicator)</b>       | $\geq$ 100 mg/dL   |

Notably absent from the joint statement is the **American Diabetes Association**. As reported by *heartwire*, there are unresolved scientific issues between the ADA and other associations, including the AHA, regarding the metabolic syndrome. Specifically, the ADA, as well as the **European Association for the Study of Diabetes** (EASD), objected to the manner in which the metabolic syndrome was characterized as a risk factor for heart disease or diabetes, arguing that there was no need to diagnose a patient with the syndrome because emphasis should be placed on aggressively treating the individual risk factors. In 2005, the ADA and EASD issued their own joint statement calling for a critical appraisal of the metabolic syndrome, its designation as a syndrome, and its clinical utility.

To *heartwire*, Eckel said the IDF, AHA, NHLBI, and others began working on the new metabolic syndrome definition in 2008 and that they simply went ahead without ADA participation. He stressed the metabolic syndrome is not a disease but simply a clustering of risk factors. The original intention of identifying the syndrome was simply to draw clinicians' and the public's attention to the importance of a high-quality lifestyle, and the metabolic syndrome is never meant to be used as a predictor of heart disease or diabetes risk.

## References

1. Alberti KG, Eckel RH, Grundy SM, et al. Harmonizing the metabolic syndrome. A joint interim statement of the International Diabetes Federation Task Force on Epidemiology and Prevention; National Heart, Lung, and Blood Institute; American Heart Association; World Heart Federation; International Atherosclerosis Society; and International Association for the Study of Obesity. *Circulation* 2009; 120:1640-1645. [Abstract](#)