

# Heart Health Times

A newsletter from NewYork-Presbyterian Hospital Preventive Cardiology Program

Affiliated with Columbia University College of Physicians & Surgeons and Weill Medical College of Cornell University



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**Special Insert** - Patient Page 

## Metabolic syndrome: Is it or isn't it?

Henry Ginsberg, MD,

Irving Professor of Medicine, Columbia University College of Physicians & Surgeons.



In the third report of the Adult Treatment Panel (ATP III) of the National Cholesterol Education Program, the panel provided new U.S. guidelines for the metabolic syndrome.<sup>1</sup> This grouping of several medical abnormalities include increased central obesity as denoted by a high waist circumference, higher than normal blood glucose, high blood triglycerides (fats), low levels of high density lipoprotein (HDL) cholesterol, and higher than normal blood pressure. The panel focused on the responsiveness of these abnormalities to non-pharmacologic approaches, including weight loss and exercise. Subsequently, a diagnostic code was assigned to the metabolic syndrome. Recently, a debate was ignited when the American Diabetes Association published a statement calling into question whether or not the metabolic syndrome actually meets criteria for a syndrome.<sup>2</sup> Moreover, the metabolic syndrome seemed to many to be a new epidemic with grave consequences of marked risk for cardiovascular disease. Actually, those who believed the latter were not completely wrong; the increasing obesity and inactivity in the country have led to increased blood pressure, more dyslipidemia (high triglycerides and low HDL cholesterol) and excess diabetes, and all of these raise risks for cardiovascular disease. Nevertheless it is crucial

for physicians and patients to understand that the components of the metabolic syndrome are what make it a risk; it may not be much more than its parts. As new treatments targeted to the metabolic syndrome are tested, we should in the interim treat the individual components as we have in the past. We especially need to increase our efforts to get people to lose weight and exercise.

**“Although the diagnosis of the metabolic syndrome is under scrutiny, there is no doubt that the synergy of cardiac risk factors increases a patient’s heart disease risk. We must do a better job of treating all risk factors.”**

**Antonio M. Gotto, Jr., MD, DPhil**  
Dean, Weill Cornell Medical College

We have always known that the latter are keys to success against these individual risk factors and they are certainly even more important if you have several of the factors all at once. So let's not worry too much about whether there is or is not a metabolic syndrome; let's take care of our patients with very high risk for cardiovascular disease and diabetes.

### References:

1. Third Report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III) final report. *Circulation*. 2002;106:3143-421.
2. Kahn R, et al; American Diabetes Association; European Association for the Study of Diabetes. The metabolic syndrome: time for a critical appraisal: joint statement from the American Diabetes Association and the European Association for the Study of Diabetes. *Diabetes Care*. 2005; 28(9): 2289-2304.

## Waistline linked to Cardiac Risk in National Study of Women

Lori Mosca, MD, PhD, Editor-in-Chief



Our preventive cardiology research team at NewYork-Presbyterian Hospital recently analyzed data from more than 6000 women without known heart disease and found those

with a waist size of 35 inches or more were significantly more likely to have hypertension, low high-density lipoprotein (HDL)-cholesterol and abnormal blood glucose. Increased waist circumference was also significantly associated with the Framingham global risk score (>10%) absolute risk of dying or have a heart attack.<sup>1</sup>

CONTINUED ON P. 2

# Winter 2006 Nutrition Myth of the Month

## Weight Loss: What Goes Down Must Come Up?

By Heidi Mochari, MPH, RD

**A**ccording to recent research, weight lost is not necessarily destined to be regained. Approximately 20% of overweight individuals are successful at long-term weight loss, defined

as intentionally losing at least 10% of their initial body weight and maintaining the loss for at least one year.<sup>1</sup>

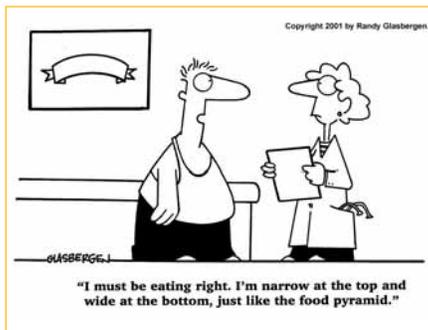
### References:

1. Wing RR, Phelan S. Long-Term Weight Loss Maintenance. *Am J Clin Nutr* 2005; 82(suppl): 222S-5S.

### Key strategies for successful weight loss maintenance include:

- |  |  |
|--|--|
| <ul style="list-style-type: none"><li>• <b>Engaging in regular physical activity:</b><br/>Activity levels approximately equivalent to one hour a day of moderate-intensity activity (such as walking).</li></ul> | <ul style="list-style-type: none"><li>• <b>Self-monitoring weight on a regular basis:</b><br/>Weighing in daily or at least one time per week.</li></ul>   |
| <ul style="list-style-type: none"><li>• <b>Eating a diet that is low in calories and fat.</b><br/>Watch portion sizes and choose wisely.</li></ul>   | <ul style="list-style-type: none"><li>• <b>Maintaining a consistent eating pattern:</b><br/>Eating the same on weekdays and weekends, holidays and vacations.</li></ul>  |
| <ul style="list-style-type: none"><li>• <b>Eating breakfast every day of the week:</b><br/>A typical breakfast consisting of cereal and fruit.</li></ul>   | <ul style="list-style-type: none"><li>• <b>Catching "slips" before they turn into larger regains:</b><br/>Those who regain the most weight in one year may be least likely to re-lose the weight the following year.</li></ul> |

## Did You Know? Facts on Overweight and Obesity



- Approximately 300,000 deaths per year in the United States (US) are attributable to overweight and obesity.<sup>1</sup>
- In women, overweight and obesity are higher among non-Caucasian populations than Caucasian women. In men, Mexican-Americans have a

higher prevalence of overweight and obesity than non-Hispanic men, while Caucasian men have a greater prevalence than African American men.<sup>1</sup>

- Nearly 46% of US adults have excess abdominal fat yet 60% of Americans do not know that it is associated with heart disease.<sup>2</sup>
- Reducing one's weight by just 5-10% can lead to significant health gains.<sup>3</sup>

### References:

1. U.S. Department of Health and Human Services (2001). The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General Rockville, MD. Accessed at: <http://www.surgeongeneral.gov/topics/obesity/> on October 24, 2005.
2. World Heart Federation. Shape of the Nations Report. Accessed at: <http://www.worldheart.org/activities-adv-obesity-shape-nations.php> on October 24, 2005.
3. American Heart Association. Primary Prevention in the Adult. Accessed at: <http://www.americanheart.org/presenter.jhtml?identifier=4704> on October 24, 2005.

higher prevalence of overweight and obesity than non-Hispanic men, while Caucasian men have a greater prevalence than African American men.<sup>1</sup>

- In a recent survey, 62% of physicians reported not regularly measuring waist circumference, more than half of physicians

## Waistline linked to Cardiac Risk in National Study of Women (CONTINUED FROM P. 1)



The participants underwent standardized cardiac risk factor screening as part of National Women's Heart Day<sup>®</sup> in February 2005 sponsored by the Sister to Sister Everyone Has A Heart Foundation. We found that 90% of women had at least one major risk factor for heart disease, and 1/3 had 3 or more.

What was most alarming in our study was that most of the women who were found to have major risk factors for heart disease were unaware of their condition(s). About half of the women with increased total cholesterol or low HDL-cholesterol did not report a history of being told they had abnormal cholesterol from a health care provider. Because knowing

you have an unhealthy level of a risk factor has been associated with greater preventive action, it is important that we clearly communicate with our patients when they have risk factors and how best to control them.

Lifestyle is the mainstay of managing both waist size and cardiac risk. Some women will need adjunctive pharmacotherapy when lifestyle is not successful in managing risk. The American Heart Association (AHA) has published evidence-based guidelines for CVD prevention in women to help physicians optimize the heart health of their patients.<sup>2</sup>

### References:

1. Mosca L, et al. Waist Circumference Predicts Cardiometabolic Risk Among Women Screened During National Woman's Heart Day<sup>®</sup>. *J Women's Health* 2006;15(1):24-34.
2. Mosca L, et al. Evidence-Based Guidelines for Cardiovascular Disease Prevention in Women. *Circulation* 2004;109:672-69.

# Heart to Heart Patient Profile: Managing the Metabolic Syndrome

*JH of Scarsdale, New York* Interview By Allison Christian, EdD



**J**H is a 64 year-old man who was diagnosed with heart disease in 1994. After receiving the diagnosis and undergoing numerous coronary revascularizations, he learned that he had metabolic syndrome; the clustering of cardiac risk factors that increase one's risk for heart disease, diabetes, and stroke. The following interview provides insight into how he became one of our "Heart to Heart" success stories.

**Q:** When did you learn you had the metabolic syndrome and had you ever heard of the condition before?

**A:** In 2004, my physician recognized that I had abnormal levels of 3 of the 5 criteria for metabolic syndrome: HDL-cholesterol < 40 mg/dL, triglycerides  $\geq$  150 mg/dL, and blood pressure  $\geq$  135/85 mm Hg. Despite being treated for heart disease for 10 years I had never heard of this condition. Receiving the diagnosis helped me understand what contributed to my heart disease, as well as motivate me to take action in making the aggressive lifestyle changes I needed to lower my risk.

**Q:** What specific actions did you take after receiving the diagnosis of metabolic syndrome?

**A:** I worked closely with a dietitian to dispel myths I had regarding foods. I learned what appropriate portion sizes were. I altered

my diet habits by reducing my intake of saturated fat, trans fat, cholesterol, and simple sugars, such as alcohol and white bread, which affect my triglyceride level. I also made efforts to maintain a healthy weight by increasing my physical activity level, with a goal of at least 30 minutes of moderate-intensity exercise on most days of the week, which helps raise my HDL-cholesterol level.

**Q:** Prior to learning what the metabolic syndrome was, did you know that an elevated waist circumference (>40 inches in men; >35 inches in women) increases one's risk of developing heart disease?

**A:** No, I was unaware that abdominal obesity (i.e., an elevated waist circumference) was a risk factor. Now I have my waist circumference measured regularly.

**Q:** What advice do you have for patients who are diagnosed with the metabolic syndrome?

**A:** Carefully follow your physicians' and dietitians' recommendations to better understand your risk and to develop a regimen that you can stick to. Learn how to manage your risk factors. For example, if your waist circumference is high, learn how to measure it so you can monitor your progress at home.

## Prevention Practice Tools: Measuring Waist Circumference

By Allison Christian, EdD

**O**besity is considered a major risk factor for cardiovascular disease (CVD).<sup>1,2</sup> Maintaining a healthy weight is crucial for reducing one's risk for developing CVD and risk factors associated with CVD, such as diabetes, hypertension, and high cholesterol.<sup>1,2</sup> If a patient has too much fat, especially intra-abdominal fat around the waist, they are at increased risk for health problems.<sup>1,2</sup> It is critical for health care providers to assess if a patient is overweight/obese and to encourage such patients to monitor their weight at home. Measurement of waist circumference is a simple method to evaluate intra-abdominal fat or central adiposity, which has been associated with several cardiometabolic risk factors.

To measure a patient's waist circumference:

1. Have the patient remove their shirt and loosen their belt (if clothes interfere with measurement),
2. Have the patient stand erect with abdomen relaxed, arms to the side, and feet together,
3. Palpate the upper hip bone to locate the right iliac crest.
4. Just above the uppermost lateral border of the right iliac crest, a horizontal mark should be drawn, then crossed with a vertical mark on the midaxillary line.
5. The measuring tape should then be placed in a horizontal plane around the abdomen at the level of this marked point on the right side of the trunk. The plane of the tape should be parallel to the floor, across bare skin if feasible.

6. An inelastic, standard tape measure should be used. The measurement should be taken under clothing, when the abdomen is relaxed, at the end of a normal expiration, without the tape compressing the skin.

USE THE IMAGE BELOW AS A GUIDE.



National guidelines recommend a waist circumference of  $\leq$  35 inches in women and  $\leq$  40 inches in men.<sup>1,3</sup>

### References:

1. National Institutes of Health. National Heart, Lung, and Blood Institute. Executive summary of the clinical guidelines on the identification, evaluation, and treatment of overweight and obesity in adults. *Archives of Internal Medicine*. 1998; 158(17):1855-67
2. Klein S, et al. Clinical implications of obesity with specific focus on cardiovascular disease. *Circulation*. 2004; 110:2952-2967.
3. Third Report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III) final report. *Circulation*. 2002; 106:3143-421.

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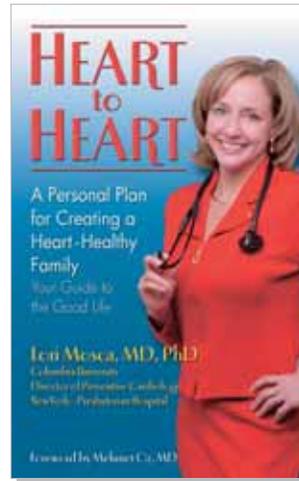
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This newsletter is partially supported by an unrestricted educational gift from Pfizer, Inc.

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Disclaimer: This resource provides brief, general information about heart health. It does not take the place of the instructions you receive from your health care providers. For answers to other questions talk to your physician or other health care provider. NewYork-Presbyterian Hospital does not endorse specifically any test, treatment, or procedure mentioned in this newsletter.

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