

## **Metabolic Syndrome: A New Way of Thinking About Long-Term Risk**

By Ruth Werner, LMP, NCTMB

Dear Readers,

The votes are in, and metabolic syndrome is the choice this month. This condition is not really a specific illness. Instead, it is a collection of features that, individually, are not great, but not particularly alarming. Together in various combinations, however, diabetes and cardiovascular disease are almost a certainty. Since cardiovascular disease and its corollaries (heart attack, stroke, heart failure, aneurysm, etc.) are responsible for nearly 40 percent of deaths in the United States, it behooves massage therapists and other bodyworkers to be familiar with this health-risk profile.

What makes metabolic syndrome especially interesting, in my opinion, is that it is a proactive approach to dealing with disease risks. Identifying when a person has some of the components of metabolic syndrome gives a person the chance to undo those processes before they progress to a more advanced and serious disease state. This idea of identifying and treating an illness before it creates significant problems is unusual in our allopathic medical community; however, this shift indicates good changes in the future.

**Demographics:** Statistics for the incidence of metabolic syndrome vary. Some researchers suggest it affects some 16 million Americans (about .06 percent), the majority of which are unaware of its existence. The Cleveland Clinic Department of Endocrinology, Diabetes and Metabolism indicates that the incidence is 22 percent, or about 47 million people. The National Cholesterol Education Program suggests that up to 44 percent of all people over 50-years-old meet the diagnostic criteria for metabolic syndrome. These inconsistencies may have to do with the age of the target group studied, differing diagnostic criteria, geographical region and other variables.

**Metabolic Syndrome Features:** Most of the features of metabolic syndrome are silent and go undetected without the appropriate blood work.

1. High triglycerides: over 150 mg/dL of blood. Triglycerides are a form of fat that provides fuel for muscular activity. High levels are associated with an increased risk of heart disease.
2. Low high-density lipoproteins (HDLs): under 40 mg/dL for men; under 50 mg/dL for women. HDLs are the "good" cholesterol carriers that reverse the deposits of fat in atherosclerotic plaques.
3. Hypertension: 130-plus over 85-plus. While the "normal" blood pressure reading of 120 over 80 is rarely seen, elevated numbers indicate a tendency toward hypertension and a risk of vascular damage.
4. Central obesity: a waist measurement of over 35 inches for women, or over 40 inches for men. The issue here is the size of the omentum: central obesity implies an "apple" shape rather than a "pear" shape for overweight people. The fat cells in the omentum are more able to produce hormones that exacerbate metabolic syndrome and its accompanying risk factors.
5. High fasting blood glucose: over 110 mg/dL after nine hours of fasting. This indicates that the ability to regulate blood glucose is impaired, probably because of insulin resistance. High levels of circulating blood glucose can contribute to the blood vessel damage seen with atherosclerosis.

Metabolic syndrome is diagnosed when at least three of these five features are present. Therefore, while a person may have a large waist, if the other components are absent, the risk of cardiovascular disease is low. Other features sometimes seen with metabolic syndrome include a high risk of blood clotting, and polycystic ovary disease in women.

**Treatment:** The first, best option for a person with metabolic syndrome is to exercise and lose weight. Reducing body weight by 5 to 7 percent (this is only 10-14 pounds for a 200 pound person) significantly reduces the risk of complications due to insulin resistance; exercise improves insulin action and decreases blood glucose. Limiting alcohol use and quitting smoking are other important steps. If these lifestyle changes are insufficient to control this disorder, medications that improve insulin uptake and/or stimulate more insulin production may be prescribed, along with agents that work to lower blood pressure and/or cholesterol.

**Massage?**

The role of the massage therapist who works with clients that are not perfectly healthy is to maximize the benefits of bodywork, while minimizing risks. This may mean changing tactics or adapting techniques to accommodate for the fragility of a client with a compromised circulatory system.

One way to make this determination is to get an idea of the client's activities of daily living (ADL). Does the client exercise regularly? Is it safe for the client to elevate his or her heart rate? Does the client huff and puff while climbing the stairs to the massage clinic? Has a doctor suggested avoiding aerobic exercise? This data informs the decisions about what kinds of bodywork are most appropriate. Techniques that focus on fluid movement may be less tolerated by a client whose circulatory system is challenged, but energetic or reflexive techniques that don't focus on fluid flow may be safe and welcome.

Metabolic syndrome patients who exercise rigorously and successfully control blood glucose, hypertension, and other features, are likely to be fine candidates for more vigorous circulatory-based techniques like Swedish or sports massage.

**For next time:** I have recently received a surprising number of letters requesting an article on contagious skin diseases like warts and herpes. Because I usually teach this material whenever I go on the road, I'd gotten it into my head that most therapists were pretty much at home with these topics. Clearly, I am mistaken! Unless I hear otherwise, I plan to focus my next column on herpes simplex. Do you have any stories you'd like to share? Let me know, so we can all benefit from your experience.

Until then, many thanks and many blessings.

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Click [here](#) for more information about Ruth Werner, LMP, NCTMB.



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