



**HEALTHY LIFESTYLES
FOR
HEALTHY AGING**

APRIL | 2008 | ISSUE 6

Belly Fat May Increase Dementia Risk

That middle-age bulge may do even more harm than previously expected. A recent study suggests it might increase your chances of having Alzheimer's or other types of dementia later on, in your senior years.

The study—*Central obesity and increased risk of dementia more than three decades later*—was published in the online March 26, 2008 *Neurology* journal and authored by research scientist Rachel A. Whitmer, PhD, from the Kaiser Permanente Division of Research in Oakland, California.

In the past, other reports have demonstrated that being overweight or obese (particular with a centralized distribution of adiposity) puts you in a higher-risk category for chronic conditions, from insulin resistance, type 2 diabetes, high blood pressure, high cholesterol, stroke, heart attack, congestive heart failure, gallstones, gout, osteoarthritis, sleep apnea and a liver disease called nonalcoholic fatty liver disease (NAFLD).

However, motivating the Whitmer research was the fact “no studies have evaluated whether the same pattern exists with dementia.” Researchers conducted a longitudinal analysis of 6,583 Kaiser Permanente members who had their visceral fat (belly fat) determined via a sagittal abdominal diameter (SAD). The SAD measurement has been shown as a viable marker for cardiovascular risk factors (such as insulin resistance), inflammation and raised serum lipids.

The study's SAD measurements occurred from 1964 to 1973. For the sake of the study, dementia diagnoses were determined using medical records approximately 30 years later (January 1, 1994 to June 16, 2006).

Toxic fat. According to an interview in a March 27 *Washington Post* article by Rob Stein, Whitmer said, “A large belly, independent of total weight, is a potent predictor of dementia. . . the effect of the belly is over and above being overweight . . . There's a lot of work out there that suggests that the fat wrapped around your inner organs is much more metabolically active than other types of fat right under the skin . . . it's pumping out toxic substances. It's very potent toxic fat.”

There are two types of fat: subcutaneous and abdominal (found inside the abdominal cavity). Most of that fat is found on the greater omentum—a large apron-like sheet that drapes over all the organs. Some people are prone to storing their body fat in their abdomen as part of this greater omentum.

As a result, large, globule clumps of fat attach to the omentum, where they release toxic materials into the venous drainage and onto the bloodstream, ultimately causing adverse effects. This kind of fat releases adipokines, harmful chemicals that can cause Alzheimer's, type 2 diabetes, insulin resistance, high blood pressure, etc.

Study results:

- 15.9% of the study subjects were diagnosed with dementia
- Subjects with the highest SAD had nearly three times the risk of dementia
- Subjects with a high SAD level (equivalent to a 39-inch waist) and normal BMI showed an increased risk of dementia
- Subjects with both obese (BMI >30 kg/m²) and with high SAD had the highest risk of dementia

Study conclusions:

- Central obesity in midlife increases risk of dementia, independent of diabetes and cardiovascular comorbidities
- 50% of adults have central obesity; therefore, mechanisms linking central obesity to dementia need to be unveiled

Also in the *Washington Post* article, Dr. Jose A. Luchsinger, assistant professor of medicine at Columbia University College of Physicians & Surgeons, explained that “stomach fat may increase the risk for dementia in the same ways it promotes heart disease—by boosting blood pressure and constricting blood flow.”

Toxic belly fat is thought to promote amyloid accumulation, existent in various diseases. Amyloid is an abnormal protein, which deposits in the body's tissues or in more organ-specific areas, such as in the pancreas (type 2 diabetes) or central nervous system (Alzheimer's, Parkinson's, Huntington disease).

In the same article, Sam Gandy—Chair of the Alzheimer's Association's advisory council, Sinai professor of Alzheimer's Disease Research and professor of Neurology and Psychiatry at Mount Sinai School of Medicine—said, “We think the buildup and clumping of this material is an important risk factor.”



Obese individuals have demonstrated high amyloid levels in past research. Yet, further investigation is needed to determine if any other factors play into the raised risk for dementia.

Action course. Whitmer gave hope in the *Washington Post* article, saying belly fat isn't "as stubborn as the fat under the skin . . . it's a modifiable risk factor."

It's important to know that visceral (belly fat) is the last reservoir people get rid of when they're losing body fat—and it's the first place they store it when they gain back body fat. To date, there are no ways to specifically target that fat, but there are things you can do to work your way down to healthier body fat levels (16% for men, under 22% for women).

- **Start making lifestyle choices now**—the roots of dementia develop years before presenting symptoms
- **Create a moderate exercise plan**—experts say it can reduce visceral fat; be sure to do plenty of cardio workouts to burn calories as well as resistance training, crunches, Ab workouts on an exercise ball
- **Opt for smarter food choices**—select olive oil and canola oil over saturated fats; lean meat, skinless poultry and fish; nutrient-dense vegetables and fruits; and avoid trans fats, overly processed/refined foods

Lose that bulge with a personalized Cenegenics program. Our well-established protocols—validated by prestigious institutions and medical journals—are based on solid science and customized to meet your specific health needs, whether toxic middle-age belly fat or cognitive, libido, energy and immune system concerns.

Based on an extensive health evaluation, your Cenegenics medical team works with you to design a program centered on four synergistic components: low-glycemic nutrition, appropriate exercise, nutraceuticals and hormone optimization (when clinically indicated).

The low-glycemic nutrition eating plan and nutraceutical supplementation help you optimize your health potential and reduce belly fat. Consistent exercise can increase metabolic rates, lower heart disease risk and improve body composition, muscle endurance, flexibility, cardiovascular endurance, core strength/stability and posture.

More specifically, resistance training helps you lose abdominal fat and overall body fat while lowering cholesterol: Weight training is the best way to burn fat; it's more effective for losing weight than aerobic activity because it burns calories while you're exercising and at rest (Cooper 1998).

It's the science behind our medical specialty—age management medicine—that allows us to improve your health span by identifying and meeting criteria that places you in the lowest possible risk category for disease, including Alzheimer's, heart disease, diabetes, metabolic syndrome and stroke.



Go beyond medical excellence.

**Learn more about personalized Cenegenics programs and the science behind age management medicine.
Call 866.953.1510 today.**