

**Summer 2018** 

## Regular Exercise Throughout Life Slows Aging

Staying Active Helps the Body Remain Young and Healthy

For many people, getting older is characterized by increases in body fat and cholesterol levels and decreased muscle mass and lower levels of T cells, testosterone in men, and other hormones associated with youth. Statistics show that fewer than half of people age 65+ don't exercise enough to remain healthy and greater than half of people age 65+ have at least two chronic diseases. The prevailing theory is that staying active may help people age better, if not more gracefully. British researchers undertook a study with elite cyclists to determine whether regular exercise could mitigate or prevent any of the physiological changes linked to a sedentary lifestyle.

The study showed that regular exercise preserved both muscle mass and strength as the participants got older; body fat and cholesterol levels did not increase; and men's testosterone levels remained relatively high. The surprise finding was that the cyclists "also had an immune system that did not seem to have aged either." Evidence of this was that the thymus gland was still producing immune cells called T cells at levels similar to young people. T cells are essential to a well-functioning immune system. Normally, after puberty, around age twenty, the thymus begins shrinking and manufacturing fewer T cells. This was not the case in the cyclists who had maintained a lifetime of regular exercise.

The take-away message was that although you may not be an elite athlete, committing to regular exercise throughout one's life can make the aging process more successful and more of 'old age' will be spent in good health. With all the possible disease conditions of the body and mind, disability, pain, or suffering need not be anyone's destiny. Identify an enjoyable form of exercise that is within your physiological capabilities and make a habit of it. Independence and productivity in your later years will be a great reward for you and your loved ones.

### **Preventing Food Poisoning**

Wash hands with warm soapy water for at least 20 seconds before and after handling food, going to the bathroom, or changing diapers.

Cook food at the proper temperature and avoid undercooked meats, seafood, and eggs.

Use a meat thermometer when grilling outdoors.

Keep raw meat, poultry, seafood, and their juices away from other foods; wash hands and utensils after handling raw animal protein sources.

Keep cold foods cold and hot foods hot; refrigerate leftovers as soon as possible; otherwise discard.

Thoroughly wash raw fruits and vegetables.

Avoid unpasteurized dairy foods.

#### RESEARCH PEARLS: **Dermal Absorption of PAHs from BBQ Fumes**

Eating grilled foods and inhaling grill smoke impact health because they contain polycyclic aromatic hydrocarbons (PAHs), which are known to cause DNA mutations, respiratory disease, and lung cancer. New research suggests that PAHs are also absorbed through the skin, and more readily than being inhaled while in close proximity to a BBQ grill. Oils produced during a BBQ are believed to assist the PAHs in getting through the skin. Clothing may provide some protection, but only until the clothing becomes saturated with PAHs. To reduce risk. researchers recommend avoid standing close to the grill, changing and washing smokeexposed clothes as soon as possible, and minimizing grilled food intake.

Environ. Sci. Technol. 2018 May 23.

# Metabolically Healthy Obesity Obesity without other diseases may be risky

People often question (or assert) that even if they're obese, they're still healthy because they don't have diabetes or elevated cholesterol levels or high blood pressure. This is a common situation in women, and there's a medical term to identify it. It's known as "metabolically healthy obesity," and although definitions vary slightly, it means that despite having a high body mass index (BMI) which would classify them as obese, they do not have other health conditions that being obese puts them at risk of having. Recent research from *The Lancet Diabetes & Endocrinology* provides a definition that describes it as obesity in the "simultaneous absence of hypertension, dyslipidaemia, and diabetes."

A frequent point of debate for medical professionals when considering metabolically healthy obesity is whether it affects a woman's risk of cardiovascular disease (CVD), and if so, to what extent? Researchers looked at data from more than ninety-thousand women whom they followed for an average of twenty-four years; none had evidence of CVD when they entered the study. Not surprisingly, the women who had a metabolic disease, such as metabolic syndrome, prediabetes or diabetes, had a higher risk of CVD even if their BMI was in the normal range. Their relative risk was 2.5 times higher than normal-weight women with no metabolic disease.

What was surprising was that the women who had metabolically healthy obesity had a thirty-nine percent higher risk of developing CVD than the normal-weight women with no metabolic disease. Chief author, Dr. Matthias Schulze concluded, "Our large cohort study confirms that metabolically healthy obesity is not a harmless condition, and even women who remain free of metabolic diseases for decades face an increased risk of cardiovascular events."

BMI Categories: Underweight = <18.5 Overweight = 25–29.9

Normal weight = 18.5–24.9 Obesity = 30 or greater



### Dear Dr. Liker...

I was diagnosed with hypochlorhydria. What is it and should I be concerned?

Hypochlorhydria refers to a deficiency of hydrochloric acid



(HCI) in the stomach which can cause impaired digestion and other negative effects on the gastrointestinal and immune system. Achlorhydria is a severe form of hypochlorhydria in which the stomach secretes no acid at all. Both achlorhydria and hypochlorhydria are quite common in adults over age sixty; approximately one third of individuals have achlorhydria and an even higher number has hypochlorhydria.

Stomach acid plays an essential role in the immune system by killing harmful bacteria that have been ingested along with contaminated food. Because many bacteria strains are unable to survive in an acidic environment, stomach HCl is the first line of defense. It helps kill the bacteria which would otherwise cause a G.I. infection.

Aside from advancing age, hypochlorhydria can be made worse if individuals consistently take antacids and/or H-2 blockers (proton pump inhibitors). Certain lifestyle factors may also play a role, including drinking water with meals, which dilutes the natural HCl in the stomach; vegetarian diets or low-protein diets, which can result in decreased HCl production; and nutrient deficiencies. Having a chronic *H. pylori* infection has also been linked to hypochlorhydria.

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