

Heart TALK

Heart-healthy and Stroke-free Living with Dr. Amy L. Doneen, DNP, ARNP

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Thoughts from Dr. Amy

Why Is Sleep So Important to Heart Health?

Regardless of other risk factors, people who don't sleep enough face an increased threat of cardiovascular disease (CVD), the leading killer of American men and women. In fact, one study of about 3,000 people over the age of 45 reported that those who snoozed fewer than six hours a night were twice as likely to suffer a heart attack or stroke as people who slept six to eight hours a night, according to the [National Sleep Foundation](#).



But why does skimping on slumber have such a dramatic effect on heart attack and stroke risk? Research suggests that lack of sleep has adverse effects on blood pressure, inflammation, weight, and the body's ability to metabolize glucose (blood sugar). Here are some important discoveries about sleep and heart health.

- **Snoring can be a warning sign of increased heart attack and stroke risk.** Loud, persistent snoring is a common symptom of obstructive sleep apnea (OSA), an often-undiagnosed sleep disorder that has been shown in several studies to double risk for stroke, heart attack or other cardiovascular events. The good news is that if OSA is treated, the excess risk can be eliminated, a recent study found. Treatment may include using a CPAP (continuous positive airway pressure) machine.
- **If your blood pressure medication isn't working, a sleep disorder could be the problem.** Undiagnosed OSA is a common cause of hypertension that doesn't respond to prescribed medications. If you fit this scenario, talk to your medical provider about having a sleep study, even if you think you don't snore, since many people with OSA are unaware of their symptoms, which can also include frequently waking up in the night and daytime drowsiness.
- **Sleeping fewer than six hours a night more than quadruples risk for pre-diabetes!** When researchers tracked 364 people for a six-year period, those who averaged fewer than six hours of shut-eye were 4.7

times more likely to develop impaired fasting glucose (also known as pre-diabetes) than those who got more sleep, even when other factors, such as family history of diabetes or weight gain, were taken into account.

- **Sleeping 7 to 8 hours a night may be ideal for weight control.** Compared to people who slept 7 to 8 hours a night, those who slumbered 5 to 6 hours were 27% more likely to become obese, according to a six-year study. The researchers also found that people who averaged 9 to 10 hours of shut-eye a night had 21% rise in obesity risk. One theory is that sleep duration may influence levels of the hormones leptin and ghrelin, which regulate appetite.
- **Sleeping too little--or too much--nearly doubles stroke risk in people with high blood pressure.** Hypertension is the leading risk factor for stroke and a major contributor to heart disease. In a study of 200,000 people with high blood pressure, those who snoozed fewer than 5 hours a night were 1.83 times more likely to suffer a stroke than those who slept 7 to 8 hours. Sleeping more than 8 hours a night raised stroke risk by 74%.
- **Regular exercise can dramatically improve sleep quality.** In a study of more than 2,600 adults, those who got at least 150 minutes of moderate-to-vigorous physical activity a week, as advised by national guidelines, reported a 65% improvement in the quality of their sleep--and felt less drowsy during the day--than people who exercised less. Before starting a new fitness regime, check with your medical provider to make sure it is appropriate for you.



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A Diet Based on Your DNA

What's the best diet for weight loss and cardiovascular wellness? When researchers compared four popular low-carb or low-fat diets, the results were puzzling. Over a 12-month period, some study participants lost 30 or more pounds on each of the diets, while others gained 10 pounds. What the researchers inadvertently proved was that the one-size-fits all approach doesn't work for weight loss.

Similarly, studies of dietary approaches intended to reduce heart attack and stroke risk--such as the well-known Mediterranean-style diet--reveal striking individual differences in response. That's prompted the American Heart Association to advise more emphasis on genetically based dietary recommendations. Here's a look at how to personalize your eating plan for optimal cardiovascular health.

The Bale Doneen Method uses genetic tests to identify the best diet for each patient. Ask your healthcare provider for more information about the two tests discussed. For more information on using the Bale Doneen Method to take your lifestyle to the next level--and use leading-edge genetic insights to prevent heart disease, stroke and diabetes--read [Beat the Heart Attack Gene](#), now available in paperback and Kindle editions.

Apo E Genotype

This test analyzes your Apolipoprotein E (Apo E) genotype, which influences both your lifetime risk for heart disease and the best diet to avoid it. The Apo E gene has three variants (E2, E3, and E4), resulting in 6 possible genotypes: Apo E 2/2, Apo E 2/3, Apo E 2/4, Apo E 3/3, Apo E 3/4 and Apo E 4/4.

People with Apo E 2/2 or 2/3 genotypes, which occur in 11% of the population, have the lowest risk for heart disease and do best with a diet containing 30% to 35% fat from heart-healthy sources, such as Omega-3 rich oily fish, nuts and olive oil.

Those with the 3/3 or 2/4 genotypes, which occur in 64% of the population, do best with the Mediterranean diet, which emphasizes plant-based foods, such as fresh fruits and vegetables, nuts, whole grains, legumes, olive oil, nuts and moderate amounts of yogurt, cheese and wine. This diet should have 25% to 30% fat.

About 25% of people have the Apo E 3/4 or 4/4 genotypes, which are linked to the highest risk for heart disease. Their best bet for prevention to eat a very low-fat diet (less than 20% fat) and limit or avoid alcohol.

Following a diet based on your Apo E genotype fights the leading risk factor for heart attack and a major risk for stroke: abnormal lipid levels. Studies show that eating the right foods for your Apo E genotype helps raise levels of heart-protective HDL (good) cholesterol and lower levels of LDL cholesterol and triglycerides.

Haptoglobin Genotype

This blood test analyzes your haptoglobin (Hg) genotype, offering insight into your risk for heart disease and which diet and supplements would be most beneficial for you. If you have diabetes, you can not only find out if you have a genotype that raises heart disease risk as much as smoking does, but if you have this high-risk genotype, research suggests that you can almost entirely eliminate this excess risk by taking an inexpensive vitamin.

If you're not diabetic, you can find out if you have a genotype linked to increased risk for intestinal, autoimmune and inflammatory disorders and if you'd benefit from a gluten-free diet and probiotics.

The Hg gene has two alleles (Hg 1 and Hg 2), resulting in 3 possible genotypes: Hg 1-1 (low risk), Hg 1-2 (intermediate risk) and Hg 2-2 (high risk). Diabetics with Hg 2-2 genotype are five times more likely to develop heart disease than those with the Hg 1-1 genotype! The good news, however, is that randomized studies show that taking 400 i.u. of vitamin E daily counteracts this increased risk in people with diabetes.

While you might wonder if all diabetics should take vitamin E--and skip the gene test--research shows that for most people, vitamin E supplements raise risk for heart attacks and early death from cardiovascular disease. The only people who benefit from this supplement are diabetics with the Hg 2-2 genotype.

There is also recent evidence that both diabetic and non-diabetic people with the Hg 1-2 or Hg 2-2 genotypes do best if they follow a gluten-free diet and take a daily probiotic supplement. Before taking any dietary supplement, discuss the pros and cons with your medical provider and ask if it's appropriate for you.

Roasted Carrot-Kale Medley

Ready in just 30 minutes, this tasty dish is low in calories, but rich in heart-healthy nutrients, including beta-carotene, the compound that gives carrots their orange color. In [a large study](#) of older adults, those who consumed the most beta-carotene in their diet had a 45% lower risk for heart attack than those who ate the least.

In this recipe, carrots are paired with kale, another nutritional powerhouse known as "the queen of vegetables." Serve with brown rice, couscous or your favorite pasta for an easy, colorful meal. This mildly spicy veggie mixture is also a delicious filling for crepes or pita bread.



Recipes for the heart

Ingredients

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| 1 pound carrots, peeled and sliced lengthwise, then sliced on the diagonal | 1 small red onion, minced |
| 8 ounces kale, washed, with tough stems removed, then chopped | 1 jalapeño pepper, seeded and chopped |
| 2 tablespoons olive oil | 4 garlic cloves, crushed |
| | Freshly ground black pepper |
| | Salt and grated Parmesan cheese to taste (optional) |

Preheat oven to 400. Combine all ingredients except salt and Parmesan in a mixing bowl and mix well. Spread mixture in a 13 X 9 baking dish and bake for 20-25 minutes, stirring once. Season with salt and grated Parmesan if using, then enjoy. Serves four.

Adapted from [GeorgieFear.com](#) and [Vegkitchen.com](#).