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Health Options
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Low sodium intake targets shortchange vital nutrient

Many times this column has emphasized that getting enough, but not too much, of each essential nutrient is "step one" in good nutrition. However, a recent recommendation to reduce the intake of one essential nutrient implies it is not an essential nutrient. This nutrient is sodium.

Question: What are the current recommendations for sodium intake?

Answer: The recently released Dietary Guidelines for Americans recommend that adults consume less than 2,300 milligrams of sodium per day and that people over the age of 50 aim for 1,500 mg per day. To put this into a food perspective, a 6-inch submarine sandwich with a cup of soup can easily exceed 1,500 mg of sodium.

Q: Isn't there universal agreement that these low sodium targets are best for everyone?

A: Although most researchers agree that excessively high sodium intake is not good for health, there is disagreement about the ideal level of daily sodium intake. Dr. David McCarron and other researchers from the University of California at Davis and Washington University in St. Louis have questioned the feasibility of aiming for such low sodium intake targets. McCarron and colleagues point out that contrary to popular belief, sodium intake has not increased or decreased during recent decades and that humans naturally consume significantly more than the new recommendations for potentially valid physiological reasons.

It is well-known that sodium is one of the few nutrients for which humans have a "specific appetite," meaning that if we are low in the nutrient we crave, we seek out foods that provide it. McCarron stresses that when sodium levels in the body drop too low, there are a series of hormonal responses that may have undesirable long-term consequences.

Q: What are some possible negative consequences of excessive reduction of sodium intake?

A: Two studies out of Australia, hot off the press in the journal Diabetes Care, report that for both type 1 and type 2 diabetics, low sodium intake was associated with increased risk of mortality from cardiovascular disease and all other causes. This was not completely surprising because it is known that low sodium intake results in increased insulin resistance. This means that more insulin is needed to stimulate insulin-sensitive cells to remove glucose from the blood. Although these studies do not prove cause and effect, they do stress the need for caution in making sodium recommendations and the need to conduct appropriately controlled human studies.

Another study found that when adults (ages 40 to 65 whose blood pressure exceeded 120 over 80) added vegetable juice containing 480 to 960 mg of sodium to their daily diet, their blood pressure dropped during this 12-week study. This juice also added a similar amount of potassium to their diets.

McCarron points out that worldwide sodium intake varies between about 3,100 and 3,800 mg per day. When sodium intake drops too far below 3,000 mg per day, hormonal changes apparently trigger the drive to seek out food sources of sodium.

Some unique groups and people with specific disease conditions may benefit from lower sodium intakes. However, when considering nationwide recommendations for the average person, it may make more sense to just encourage consumption of a wide variety of foods including moderate salt intake.

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