

## Public Nutrition Policy, Science and Change

By Ann Gerhardt MD

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**Should public policy concerning nutrition guidelines dictate the interpretation of scientific findings or vice versa?** When science moves in a direction that would seemingly dictate a change in policy, how rapidly should that policy change? How much faith do people have in dietary recommendations that seem to always change?

These questions directly relate to the controversy concerning how much salt (sodium) we should eat. A symposium, presented at a respected nutrition meeting in April, presented data from studies done over the last 15 years that refute the prevailing idea that the lower the dietary sodium the better.

In spite of this data, the American Heart Association pushes everyone to cut sodium to 1500 mg per day, less than half of Americans' average sodium intake. The Institute of Medicine says that is harmful to the health of people with heart failure and possibly everyone else. My article '**Dietary Sodium: Dogma, Doubt, Denial and Desirable**' in this issue of DrG'sMediSense explains the science behind the incipient sodium paradigm shift.

**To understand how recommendations can change so dramatically one must understand how science usually works.** Someone gets an idea or notices an association, like, "My high cholesterol patients seem to eat a lot of cholesterol-containing foods." This leads to a population study: The design is based on knowledge at the time, but may entail unrecognized bias or practical limitations. That study confirms an association. Others repeat the test in other population groups. Someone else thinks of a few more potentially important variables, changes the study design somewhat, but comes up with similar results.

The association holds up under this increased scrutiny, but the fact that two things co-exist doesn't prove that one causes the other. Assumptions influence data interpretation, and given what was known at the time, scientists mostly concluded that dietary cholesterol = bad.

**Policy and Human Nature:** Well-meaning public policy committees decided to educate the populace about the dangers of dietary cholesterol. Money and time were invested, low cholesterol eggs appeared, and the amorphous mass of public awareness gradually coalesced around trying to eat low cholesterol foods. The rules seemed simple and health-conscious people complied.

But science marches on, with scientists drilling down ever farther into molecular mechanisms for an association. In the cholesterol story they found that dietary cholesterol raised blood levels in only a minority of individuals. It was really saturated fat... no, really a sub-type of saturated fat... no, a sub-type of saturated fat, along with other genetic characteristics and lifestyle factors, that determine a person's cholesterol level and heart disease risk.

The populace gets upset with scientists and policy-makers if policy changes. Isn't a rule a rule? Why was margarine the go-to spread of the 80's, then eschewed, along with their trans-fats, in the 2000's?

Knowing this, policy-makers drag their feet in making change – They want to be ABSOLUTELY sure that a change is justified. That way they won't spend money on unnecessary new education materials or look stupid if the need for change is later proven to be wrong.

So now sodium – Just how sure are we about our science and the public policy recommendations that result from it? We may not know until some years

later, as evidence becomes available that confirms or refutes previous findings.