

October 5, 1982

News

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*****Physician and dietitian offer tips for the patient on a low-sodium diet

DALLAS--"Water, water everywhere and not a drop to drink.

"It was the salt in the water, of course, that made it undrinkable. And on entering the supermarket, the person with high blood pressure has almost the same feeling as the Ancient Mariner adrift in the ocean.

Again, it's the salt. It's everywhere. And the wary hypertension patient has to learn how to read food labels with the zeal of an inspector.

Sodium is the likely dietary culprit in hypertension (high blood pressure). It may appear in various forms on food labels -- sodium, salt, monosodium glutamate, brine, baking soda, baking powder or the chemical symbol Na.

Most foods with any amount of processing are off-limits for the person on a strict low-sodium diet unless the foods are labelled "low sodium" and cost two to three times as much. But for most people, including those with hypertension, it should be possible to cut the amount of sodium in half with relatively little trouble.

For someone who is used to cooking with "convenience" foods and eating at "fast food" places, a lower-sodium diet requires a change in lifestyle, says Linda Brinkley, research dietitian at The University of Texas Health Science Center at Dallas. To be on the safe side, the dieter should start with fresh meats and vegetables (or plain frozen vegetables except lima beans or English peas) and prepare them without adding salt. Other foods that are low in sodium include: canned fruit, milk, rice, noodles and dried beans.

The average American adult consumes 10 to 12 grams (2 1/2 to 3 level teaspoons) of table salt (sodium chloride) each day, says Dr. Norman Kaplan, a nationally recognized hypertension expert and professor of Internal Medicine at UTHSCD. As he emphasizes in his soon-to-be-published book Prevent Your Heart Attack (Scribners and Sons, New York), salt was originally used as a preservative before refrigeration. As carry-overs, we still have salt pork, beef jerky, pickles and sauerkraut. Salt is not needed as a preservative any longer--packaging and refrigeration are much more important in preserving foods, says Kaplan. But now salt is added to almost everything for taste. ("The directions on the hot cocoa package say, 'Add salt to taste,'" says Brinkley.)

"We assume a taste for salt is a learned thing," says Kaplan. "There is no physiological need for the large amounts of salt we are now eating."

The problem with having a taste for salt is that hypertension may be caused by a slow build-up of sodium in the body. It is not certain that this is the case, but more and more evidence points in this direction. For one thing, cutting down on the sodium intake will lower the abnormally high blood pressure--even without medication. In patients taking medication for hypertension, sodium restriction will reduce the blood pressure even further.

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"Some primitive tribes of people have a low sodium and a high potassium diet and also have a low incidence of hypertension. A high potassium diet may actually protect against high blood pressure," says Kaplan.

Why sodium would cause the blood pressure to increase is not known. "Most likely it increases the fluid content of the body," says the researcher.

"It probably starts by the slow retention of a small quantity of sodium by the kidneys. Over many years, the build-up of sodium and water over-fills the circulatory system and causes the blood pressure to rise. In an attempt to protect themselves from the heightened pressure, the arteries develop thicker walls. This limits their capacity and further raises the pressure."

One of Kaplan's research projects is a preventive cardiology program with medical students, and he also sees hypertensive patients. So he is aware of the problems patients have in trying to reduce their sodium intake. He favors the proposed Food and Drug Administration policy of requiring sodium content labelling of foods that carry voluntary nutritional labelling. The listing of nutrients on food packages is voluntary -- about 30 percent of foods are now labelled. But if they carry a label, according to the proposed rule, the label would have to include the quantity of sodium in the food.

There is currently a controversy over whether the widespread addition of sodium to food should be curtailed. Some researchers believe there is no need for normal people to reduce their sodium intake. Kaplan, however, comes down strongly on the side of general sodium restriction. "Twenty percent of the U.S. population will become hypertensive. If these could be identified ahead of time, they could reduce their sodium intake, and we could leave the rest of the people alone. But they can't be identified ahead of time. Why not do something that will help a large group of people and won't hurt anybody? What we're after is only a moderate reduction of sodium intake, to a level about half of our present level. That shouldn't interfere with our enjoyment of food, but some might object to leaving off the pickles, cured ham and other heavily salted foods.

"On the other hand, a very low sodium diet is much more difficult to achieve and may predispose people to dehydration if they develop intestinal upsets or exercise heavily in hot, humid weather."

Kaplan emphasizes that the moderate sodium restriction being advocated to treat and possibly prevent hypertension doesn't pose such hazards. "Millions of people live perfectly well on even less sodium and after getting used to less sodium, most people prefer the taste."

He believes that the new FDA labelling policy will call attention to sodium content, and the increased attention by consumers will lead manufacturers to offer more reduced-sodium products.

"Most of the time people (on moderately restricted sodium diets) just need to stop munching salty foods -- chips, pickles, olives, crackers -- and stop adding salt at the table," says Brinkley. She estimates that this change would reduce the sodium intake by 50 percent in most people.

The average American diet includes 4,000 to 5,000 milligrams (mg.) of sodium daily. A "mild" sodium-restricted diet would contain 2,500 to 3,500 mg. while a "moderate" restriction would contain 2,000 mg. Some patients may need to be restricted to 1,000 mg. of sodium daily.

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Even some of the low-calorie dieter's best friends may be off-limits because of the high sodium content. Some of these with comparable low-sodium foods are:

Low sodium		High sodium	
Shredded Wheat	1 mg/oz	Corn flakes	305 mg/oz
Green beans, fresh	5 mg/cup	Green beans, canned	925 mg/cup
Orange juice	2 mg/cup	Tomato juice	640 mg/cup
Turkey, roasted	70 mg/3 oz	Turkey dinner	1,735 mg
Ground beef	57 mg/3 oz	Frankfurter, beef	425 mg each
Pork, uncooked	65 mg/3 oz	Bacon, uncooked	1,400 mg/3 oz

In adapting to cooking foods low in sodium, there are many recipes that can be made acceptable by merely leaving the salt out. "For example, you can make chili," says Brinkley. "Use the spices. Leave out the salt and the Worcestershire sauce. Use salt-free canned tomatoes or fresh ones or drain the juice off regular canned tomatoes. Now in changing recipes, I'm not talking about tuna casserole with canned tuna, canned soup and potato chips. Those foods are too salty."

Brinkley's other tips for low-sodium dieters and cooks are:

- o Reduce the salt content of canned vegetables by about one-third by draining and rinsing with tap water. Buy water-packed tuna and rinse it to eliminate most of the salt.
- o Plain frozen vegetables, except lima beans and English peas, are prepared without salt.
- o Yeast breads have a lower sodium content than quick breads, breads made with baking soda or baking powder. For the severely restricted diet, low-sodium breads and low-sodium baking powder are available.
- o Instead of cooking pinto beans with ham or bacon, use a lean pork chop or pork roast.
- o Beef bacon and wieners are still forbidden foods. They are lower in fat than pork, but that has nothing to do with the salt content.
- o For a breakfast meat, mix ground beef with sausage spices -- sage and different kinds of peppers -- and cook as you would a sausage patty.
- o It's easier to carry a lunch to work than to eat out on this kind of diet. Any lunch meat is forbidden as are regular mustard and pickles. Tuna salad and egg salad with low-sodium mayonnaise are good for sandwiches.
- o Cook a beef roast, chicken or turkey on the weekend and slice for sandwiches for lunches.
- o Cook other foods in large quantities on the weekend, make your own low-sodium TV dinners and freeze for easy preparation during the week.
- o Lunchbag "munchies" can include: salt-free chips, radishes, cucumbers, cauliflower, broccoli, cucumbers and onion marinated together in vinegar with spices.
- o Don't be misled by labelling. Saltine crackers contain 33 mg. of sodium each. Buying those with unsalted tops saves you only 8 mg. each. Shop for "low sodium" crackers. Or substitute a piece of Melba toast with 3 mg. of sodium.
- o Some health food stores have a large assortment of low-salt items -- potato chips, cornflakes, unsalted peanuts, almonds, pickles, almost everything but cold cuts. They are expensive, however.

o Salt substitutes for seasoning include: Vegit, Nature's Gourmet (Original and Hot 'n Spicy) and No Salt. These contain very little sodium, if any. Lite Salt contains half sodium chloride, half potassium chloride. "And don't use twice as much as usual," warns Brinkley. "Try to use less." Heart and kidney patients should avoid the potassium substitutes for sodium.

o Family Cookbook, published by The American Diabetes Association and The American Dietetic Association, is a good cookbook to have. It shows the nutrients and sodium content for each recipe. The recipes are not low-sodium, but it's easy to tell which ones are suitable for the individual diet.

o Food Values of Portions Commonly Used by Jean A.T. Pennington and Helen Nichols Church is another good book for people on special diets. It uses household measures of portions and includes foods and fast-food items by brand name.

o A rule of thumb when shopping is not to buy anything in which salt is listed as one of the first three ingredients. (The ingredients are listed in order of amount from most to least by weight.)

o When cooking for company, don't add salt. Just put the salt shaker on the table. Many will add their own anyway no matter how the food tastes.

o If consumers choose to buy labelled foods whenever possible, it will probably influence manufacturers to label more foods.

Cutting down on salt makes eating out more difficult. "It cuts out certain specialty foods. Both Chinese and Japanese food contain a lot of soy sauce (with a very high salt content) and Chinese food is 'loaded' with monosodium glutamate," says the research dietitian.

"Fast food" places are off-limits to low-sodium dieters. Kaplan reports that an order of three pieces of Kentucky Fried Chicken, mashed potatoes and gravy, cole slaw and roll contains 2,285 milligrams of sodium -- as much sodium as a person should eat in one day. "However, if you've got enough will-power, you can get rid of most of the sodium by stripping off the skin, since it's the 'secret' spices that contain most of the sodium," he says. Some other "fast foods" tested include McDonald's Big Mac, 962 mg.; Burger King Whopper, 909 mg., Dairy Queen Chili Dog, 939 mg., and Taco Bell Enchirito, 1,175 mg.

In a restaurant it is possible to get steak, broiled chicken or fresh fish or eggs prepared without salt; an unopened and unbuttered baked potato; a salad made of fruit or fresh vegetables served with oil and vinegar or lemon juice. Avoid hamburger -- it is usually heavily salted.

When all is said and done, cutting down on our currently excessive sodium intake shouldn't be that hard to do -- and it may pay large dividends.

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EDITOR'S NOTE: Tips in this story for reducing sodium intake should be used as an aid. An individual with high blood pressure should be closely monitored by a physician since there are many variations in response to diet and medication. Only the physician can guide the patient in how much to restrict sodium. Ideas presented here for sodium restriction should not be assumed to be approved for the patient on a low-calorie diet.