



The Low-Sodium Diet

SOME METHODS OF MAKING IT MORE ACCEPTABLE WITH SPECIAL REFERENCE TO THE USE OF BITTERS

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THE LOW-SODIUM diet, often referred to as the low-salt diet, has attained a very wide sphere of popularity and usefulness. In many milder cases of cardiac decompensation, sodium restriction alone, without the use of digitalis or other medication, often suffices to prevent symptoms, enabling the patient to carry on even in the presence of severe cardiac damage. Resumption of the use of table salt in these instances, even if digitalis is given, will often result in overt heart failure. Generally speaking, it is wiser and safer to depend on dietary measures rather than to rely on diuretics to rid the body of sodium once invested. There is little probability of reaching dangerously low blood sodium levels or otherwise producing undesirable electrolyte disturbances unless there is renal disease, excessive sweating, or injudicious use of diuretic agents.

Nevertheless, this particular diet, especially among a people like ourselves, accustomed as we are to large amounts of dietary sodium chloride, is a real hardship for many patients, and often results in a feeling of deprivation and frustration. Some will resist the physician's admonitions, orders, or cajoling and return to more tempting and enjoyable foods. Our objective, recently achieved in large measure, is

to make the foods offered in the typical low-sodium diet more acceptable. We have learned a great deal about how to do this since the publication of a previous paper on the subject.¹

A common complaint is that food prepared without salt is flat, uninteresting, and lacks character. This defect can be largely corrected by the use of spices frequently avoided by patients and others concerned with preparing diets on the mistaken assumption that they are harmful. The following may all be used safely to add variety and zest to the menu.

Allspice	Marjoram
Almond extract	Mushrooms
Basil	Mustard seed
Bay leaves	Nutmeg
Cardamom	Onion
Carroway	Paprika
Chili powder	Parsley
Cinnamon	Pepper, freshly ground
Clove oil	Peppermint
Cocoanut	Pimiento
Curry	Rosemary
Dill	Saffron
Garlic	Savory
Ginger	Sesame
Honey	Sour salt (U.S.P. citric acid)
Horseradish (home prepared)	Sugar
Jams	Tarragon
Lemon juice	Thyme
Lime juice	Vanilla
Mace	Vinegar

Several herb dealers are marketing combinations of these as highly satisfactory seasonings for foods. Yeast has been toasted over hickory smoke to produce a powder greatly resembling bacon in flavor.

We have found that a significant advance in giving salt-free foods the tang or "bite" that

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they usually lack is the use of Angostura Aromatic Bitters hitherto employed almost entirely in the preparation of alcoholic drinks. The bitters pick up at once the flat taste of salt-free soups. They may be used too in salads, pies, fruit salads or mixed with low-salt cottage cheese, gravies, and puddings.

The sodium content of Angostura Aromatic Bitters is unexpectedly low. The sodium content in 100 ml is 3.88 mg; in one "dash" (1.3 ml) is 0.05 mg and in one teaspoonful 0.16 mg. The bitters can therefore be used freely, and this innovation has been accepted with relief and eagerness by nearly all patients. So far, 100 patients have been instructed to use this spice, and only seven report that they have discontinued its use after three months' trial. Of these seven, three report that they still use the bitters occasionally to improve the flavor of special foods. Despite its name, the manufacturers report that the bitters do not contain Angostura bark. The product, although produced by secret formula, is a mixture of aromatic spices such as cloves, cinnamon, mace, sweet orange peel, cardamom, with gentian in an alcoholic menstrum. The amount used will vary with taste but is usually about 1 ml to the average portion.

Some of the ways in which taste may be added to vegetables and meats are listed below:

Vegetables

Asparagus: Sprinkle with freshly grated nutmeg.

Broccoli: Add butter and lemon juice.

Corn: Add sugar and freshly ground pepper.

Carrots: These should be boiled, the water discarded, and boiled again. Mint, tarragon, or butter and chives can be used to add flavor. Carrots should not be used at all in very restricted diets.

Cauliflower: Add butter or cream sauce seasoned with nutmeg or Angostura Bitters.

Cucumbers: May be diced and boiled in cream sauce with nutmeg, sliced raw very thin and then marinated in any vinegar.

Eggplant: Peeled, diced, boiled, and drained. Add tomatoes, bay leaf, and oregano.

Green beans or lima beans: Add nutmeg or savory and butter.

Sweet potatoes or yams: Boil and peel, then bake sliced and covered with a mixture of brown sugar and rum.

Leeks: Sprinkle with freshly grated nutmeg.

Mashed potatoes: Add freshly grated onion and nutmeg.

Mushrooms: Saute in butter with chopped onion.

Onion: Boil with clove and thyme.

Peas: Boil in sweetened water, drain, and add butter and chopped or powdered mint.

String beans: Marjoram improves the taste greatly.

Tomatoes: May be broiled, halved, with butter and a pinch of oregano or basil. May be stewed with bay leaf, onion, and oregano. Angostura Bitters add flavor to tomatoes, raw or cooked.

Meats

Goulash: Onion, bay leaf, tomato, sweet paprika, pepper, rosemary leaves or oregano, and Angostura Bitters are suggested for flavoring.

Lamb chops: Rub chops with pepper and ginger before broiling.

Roast beef: Rub meat with pepper and ground ginger. Put 1 large bay leaf in roasting pan and baste every 15 minutes.

Veal chops: Rub chops with pepper and saffron. Brown a little margarine, then add a little water and simmer until done.

Veal stew: Onion, bay leaf, powdered mace, celery leaves, and bitters to flavor.

Breads

"Salt-free breads" which are generally satisfactory are available in almost all large cities or may be ordered by mail. Toasting the bread makes it very palatable. The toasting process will improve other bread products. In addition unsalted Italian breadsticks and even pretzels can now be bought.

SOME WARNINGS

Both butter and oleomargarine are usually sold salted. The patient should insist on unsalted varieties. Nearly all canned foods and soups contain salt as do some frozen foods. Here, too, the purchaser should learn to read labels warily. Celery, garlic, and onion salts, it should be remembered, contain huge amounts of sodium. In addition, many "flavor improvers" contain sodium. Special foods offered as "salt-poor" should contain statements as to their actual salt content. Edam and Port Salut cheeses bought as low-sodium cheeses in a large department store were found to have 0.39 and 0.44 meq of sodium per gram. Such foods could not of course be eaten freely in a salt-restricted diet.

Some of the artificial sweeteners now on the market contain sodium; sodium-free substitutes are available and should be used. Many candies contain salt and the admonition to read the label applies here as well. This is particularly true of candies containing chocolate, especially the Dutch process chocolate.

COMMENT

A cook who reads one of the several very satisfactory cook books now on the market and uses some ingenuity of her own can easily make life more agreeable for the patient. The

author and his staff would be glad to receive further suggestions from the readers of this paper.

There is little likelihood that the low-sodium syndrome will develop in patients who follow a diet such as this unless they are getting diuretics in addition or are losing sodium in other ways. The physician of course, must be on the alert for this condition in patients to whom he is giving mercurials or other diuretics.

Angostura Bitters were found to be an exceptionally acceptable flavoring agent for daily use over a three-month trial period for 93 out of 100 patients; three patients had

occasional use for it, and only four discontinued its use.

The low-sodium diet is a useful one and is now deservedly popular. With the exercise of some ingenuity, the diet may be made quite palatable. Specific suggestions are given in the article.

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REFERENCES

1. PLOTZ M.: The Salt-Poor Diet. *New York State J. Med.* 49: 1439, 1949.

