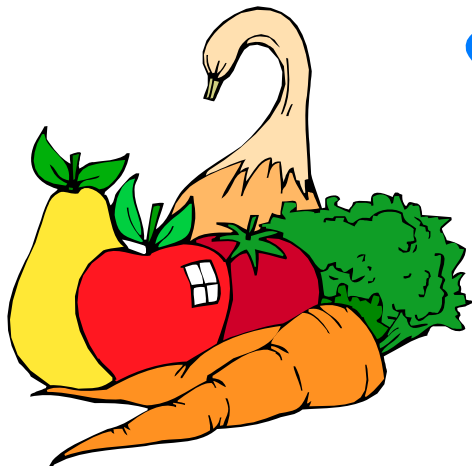
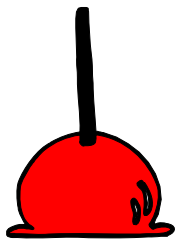
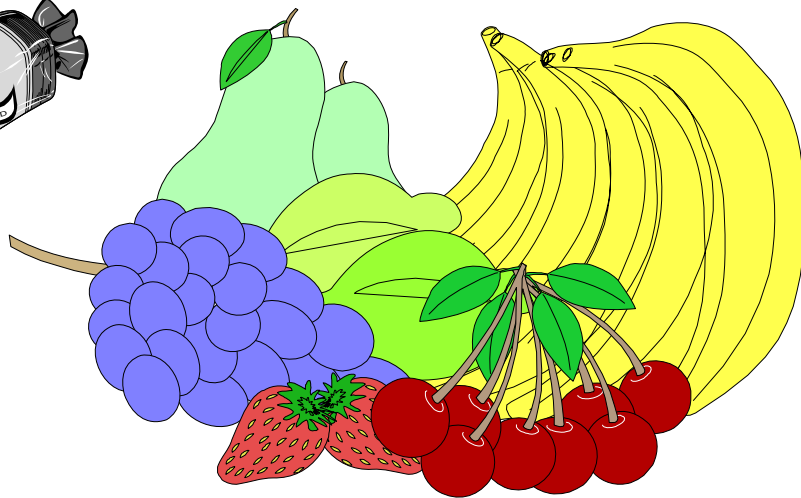
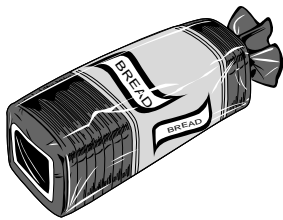


Hypertension





Blood Pressure



What is it?

*Measured with a sphygmomanometer- inflatable rubber cuff with a pressure gauge that goes around the arm, is pumped until pressure is put on the arteries

*2 pressure readings

-*systolic*- higher, heart is pumping

-*diastolic*- heart relaxed

*Hypertension- persistent elevated blood pressure

-Young adults = 119/75

-Other adults = < 140/90 **NEW GOAL: 120/80 or lower**

*When taking blood pressure relax for 5 to 7 minutes prior to taking

Who does it affect?

*Increases risk of stroke, heart attack, circulatory diseases



What are the Symptoms?

*May be no symptoms

*Anxious



What do I need to do?

*See your Physician

*Decrease sodium in your diet - **Avoid pickles, bacon, ham, sausage, sauces, gravies, dips, cheeses, cured meats, processed meats, tomato based products, soups, MSG, spices with salt, salt, casseroles and combination foods**

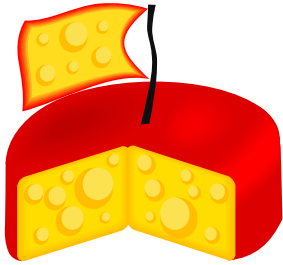
*Exercise 15 minute per day

*Eat high calcium foods

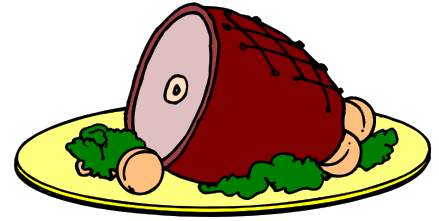
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Sodium



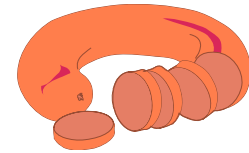
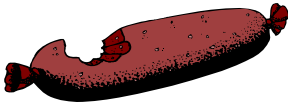
What does it do?

- *Acid-base balance, sodium (Na) is the major extracellular fluid cation
- *Nerve stimulation/function and muscle contraction/function
- *Regulates water balance
- *Blood pressure regulation, normal heart function
- *Glucose transport into cells

What are the Deficiency symptoms/Excess?

Deficiency- confusion, coma, hyponatremia, water intoxication, anorexia, nausea, muscle atrophy, poor growth, weight loss, even death

Excess- confusion, coma, high blood pressure that leads to other problems, hypertension, edema, heart failure



Best Food Sources:

*Salted nuts, bacon, ham, sausage, processed meats, sauces, gravies, pickles, soda, MSG, cured meats, cheeses, sardines, olives, potato chips, snack foods, crackers, sauerkraut, frozen dinners, soups, buttermilk, V-8 juice, tomato juice, canned tomato products, spaghetti sauce, broths, salt pork, frankfurters, corned beef, smoked meats, anchovies, marinated herring, peanut butter, commercially softened water, mustard, relishes, Kosher salt, ketchup, beets, horseradish, ketchup, soy sauce, luncheon meats, potted meats, Spam, vienna sausage, many drugs, preservatives, some drinking water, table salt, seasoning salts, baking powder, processed foods

U.S. RDA (Recommended Daily Allowance):

- *500 mg. to 1 gram per day, see RDA's
- *> 95% from a mixed diet is absorbed





Salt Substitutes



What is it?

*Used to season foods

*Used as a Substitute for Salt- due to medical reason patient cannot use salt

Signs and Symptoms:

*Hyperkalemia- large amount of K⁺ is released from the reservoir cells when
-large muscle cell destroyed- automobile accident/crash injury



-severe burn



-crack cocaine overdose

*Rapid influx of K⁺ into the bloodstream overwhelms the kidneys, can't excrete and becomes life-threatening

Brand Name/mg Na⁺ (sodium)/K⁺ (potassium)

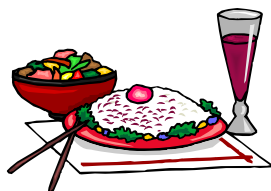
Brand Name (.7 gms/1.4 t.):	mg. Na ⁺	mg K ⁺	meq K ⁺
*Adolph's	2.75	1205	31
*Adolph's Seasoned	2.75	849	22
*Co-Salt	1.375	987	25
*Diamond Crystal	1-2	1104	28
*Featherweight	1-2	2	0
*McCormick's	1-2	1170	30
*Morton's	1.375	1250	32
*Morton's Lite Salt	488	650	16
*Mrs. Dash Original	0	10	highest of all = 15 mg. K
*Papa Dash	180	0.03	0



Facts:

*Most Salt Substitutes- are high in Potassium (K⁺), do not use if a renal patient

*Do not use without talking to your Physician and a RD



What can I do?

*See your Physician

*See RD for help as needed

*See FFF RD on line for help



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Hypertension Medications



Medications/Side Effects:

***ACE Inhibitors/Altace, Lotensin, Monopril, Accupril, Enalapril-** useful in CHF (Congestive Heart Failure)- abdominal pain, nausea, vomiting, don't take potassium

-Captopril/Capoten- alters BUN (Blood Urea Nitrogen), creatinine, reduce sodium, calories, take 1 hour before meals, loss of taste

***Amiloride/Moduretic-** diuretic/antihypertensive, avoid alcohol



***Antihypertensives/Reserpine/Serpasil-** requires a Low Sodium Diet Plan, take with food, may need a lower calorie diet

***Beta Blockers-Atenolol/Tenormin, Visken/pindolol, Inderal/propranolol-** -decreases rate/force of heart contractions, blood pressure, nausea, dizziness

***Catapres/Clonidine-** Low Sodium/Calorie Diet, edema, constipation, nausea, vomiting, dry mouth

***Diuretics/Spiro lactone/Aldactone/Aldactazide-** potassium sparing
-furosemide/thiazides/lasix- require supplementation of potassium, GI bleeding, diarrhea, altered calcitropic hormones with bone health for extended use, alters potassium levels, blood glucose, nausea, vomiting, constipation, anorexia

***Estrogen/OC's-** increase blood pressure

***Minipress/Prazosin-** diarrhea, constipation, anorexia, nausea, weight gain

***Propranolol/Inderal/Raudixin/Metoprolol/Lopressor-** use Low Sodium/Calorie Diet, abdominal cramps, nausea, vomiting, diarrhea



What can I do?

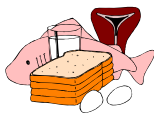
*See your Physician



-talk with about fluids, nausea, vomiting, constipation, exercise, alcohol, caffeine, potassium, salt substitute

-> 80 years of age- drugs are less useful

-takes 6-8 weeks to see results of a medication



*See RD for help as needed

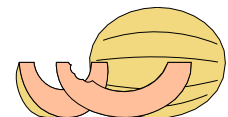
*See FFF RD on line for help

*Increase Fiber, Low Sodium, Fruits, Vegetables, Calories depend on individual weight

*Decrease Sodium/Salt, Caffeine, Alcohol, follow Cardiac Diet Plan



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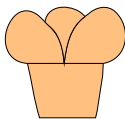


No Added Salt (NAS) Patient:

Bread or Starch Group:

Breakfast: Lunch: Supper: Snack:

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1 sl. bread, roll, 1/2 bagel, English muffin, bun, pita, 2 rice cakes, bread sticks, 6 vanilla wafers/animal crackers, gingersnaps, 3 graham crackers, Melba toast, 1/2 c. pasta, rice, 3 c. popped popcorn,

Cereals: 3/4 c. Chex/Flakes, 1/4 c. Granola, Muesli, Grape-nuts, sherbet, pudding, 1 c. puffed/shredded cereals, 1/2 c. bran, grits, oatmeal,

Vegetables: 1/2 c. mixed vegetables, baked beans, lima beans, peas, potato, plantain, winter squash, corn, pumpkin, succotash, 1 1/2 inch cube Angel

Food Cake: **High Sodium:** 3/4 oz. chips/pretzels, tortilla, muffins, cornbread, biscuits, croutons, baked beans, Soft serve ice cream, soup, popcorn, salted crackers, self rising flour/meal

Fruit Group: Fresh Fruit is Best!!!

Breakfast: Lunch: Supper: Snack:

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1/2 c. applesauce, apricots, papaya, fruit cocktail, mango, pineapple, peaches, pears, plums, grapes, 1 small-kiwi, apple, banana, orange, peach, nectarine, 4 fresh apricots, 3/4 c. mandarin oranges, black/blueberries, grapefruit, pineapple, 2 tangerines, figs, plums, dates; 1 1/2 c.-strawberries, melons, raspberries, 3 kumquats, **Fruit Juices:** 1/2 c. apple, cider, grapefruit, orange, prune, pineapple, 1/3 c. grape, cranberry, fruit juice blends, 1 c. Reduced Calorie cranberry cocktail, 1/4 c. Nectar; **High Sodium:**

All Dried Fruits-raisins, currants, apricots

Milk Group:

Breakfast: Lunch: Supper: Snack:

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Milk Group: 1 c. Skim/1/2 %/1%/Nonfat/LowFat Buttermilk, light soymilk, 1/3 c. Drynonfat milk, 1/2 c. Evaporated skim milk, 3/4 c. plain nonfat yogurt/plain lowfat yogurt **High Sodium: Buttermilk**

Healthy Meal Plan: 3 Meals a Day,

Bedtime Snack, **AVOID SALT,**

Exercise 20 to 30 minutes/Day,

Used for High Blood Pressure, Shortness of Breath, Congestive Heart Failure

Vegetable Group: Eat ALL You Want!!!

Breakfast: Lunch: Supper: Snack:

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Vegetable Group: 1/2c. artichoke, bamboo shoots, bean sprouts, asparagus, broccoli, beets, brussel sprouts, green beans, Kohlrabi, leeks, greens, okra, onion, carrots, cucumbers, eggplant, snow peas, pimento, rhubarb, rutubugas, tomato, turnips, 4 water chestnuts, (2 T.ketchup) 6 cherry tomatoes, 1 c. - alfalfa sprouts, cabbage, chicory, endive, escarole, fennel, green pepper, lettuce, mushrooms, radishes, spinach, cauliflower, celery, summer squash/zucchini

High Sodium- sauerkraut, V-8/Tomato Juice, canned tomatoes Products, Pickles, Soups, broth

Meat Group:

Breakfast: Lunch: Supper: Snack:

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Meat Group: 1 oz. or as stated-Broil, Boil, Bake, Roast, Stew, Grill, Stir-Fry- Fish, Veal, Chicken (remove skin), Venison, Buffalo, Duck, Cornish Hen, Shellfish, Goose, Lamb, Rabbit, Fresh Pork, Turkey, 2 Egg Whites, 1/2 c. dried peas, beans, lentils, Tofu, Soy Protein, Beef-trim fat-sirloin, round, flank, tenderloin, roast, Steaks-T-Bone, porterhouse, cubed, ground round

High Sodium: Cured/salted/smoked/canned/marinated meats, fish, poultry, corned beef, parmesan cheese, luncheon meats, hotdogs, sausage, cured ham, sardines, peanut butter, anchovies, creamed sauces, gravies, chili sauce, rock salt, Kosher salt, Sea Salt, MSG, Accent, Worcestershire Sauce, Soy/BBQ Sauce, Teriyaki sauce, mustard, salt, canned vegetables/vegetable juices, softened water

Fat Group:

Breakfast: Lunch: Supper: Snack:

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Fat Group: Unsaturated-Good- 1t. Margarine, Mayo, Oil-(canola, corn, olive, soybean, safflower, peanut, sunflower), 2t. Low Calorie mayonnaise/6 hickory/cashews, 10 almonds/peanuts, 5 pecan halves, 2 brazel, 3 macadamia/pistachio, 4 walnuts, 2T. avocado, **High Sodium: 2t. Tarter Sauce, 1 T. Salad Dressing;**

Saturated-Bad- 1 t.-butter/solid shortening, 2 T. coconut, chitterlings, 1T. cream cheese/sour cream/coffee creamer, 1 sl. bacon***May have drinks with Sugar, Desserts as RD/MD approves.**

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Breakfast: **L**unch: **S**upper: **S**nack:

Beverages: as desired-Tea, Coffee, Instant Coffee, Decaffeinated Coffee or Tea, Drink Mixes, Regular or Diet Carbonated Beverages, fruit juices, Cocoa Powder **Avoid:** Beverage Mixes, Instant Cocoa, Fruit Flavored Powders, commercially softened Water, Dutch Process Cocoa

Miscellaneous Soups: 1/2 cup serving per day Low Sodium canned soups and bouillon, unsalted homemade vegetable soup made with ingredients allowed **Avoid:** Regular commercially canned soups, dried mixes, bouillon, soups made w/salt

Breakfast: **L**unch: **S**upper: **S**nack:

Desserts & Sweets: as desired desserts made with plain or dietetic gelatin, fruit ices/whips, popsicles, homemade ice cream, pudding & custard made with milk & egg allowance without salt.

A **NAS** diet is a Regular diet with no salt added to the tray once it arrives at the table. Can cook with a small amount of salt. Be aware of foods that are high in sodium as tomato based, others as stated.

****May have 2 high sodium items per day!!**

Seasonings: as desired==Unsalted cream sauce made with allowed milk, , unsalted meat base gravy, pepper, unsalted spices, flavorings, vinegar, lemon juice, lime juice, low-sodium catsup, mustard, chili sauce, pickles, tomato sauce, fresh ground horseradish, , Tabasco Sauce, Unsalted nuts and popcorn, yeast, cream of tartar, potassium bicarbonate, sodium free baking powder, garlic powder, onion powder, dry mustard, parsley, chives, curry powder, bay leaf, sage, allspice, cinnamon, nutmeg, ginger, chili powder **Avoid:** Salt, regular catsup, mustard, pickles, horseradish, celery salt, all spices with salt, lemon pepper, MSG, Lite Salt, Meat Sauces, BBQ/Soy Sauce, Worcestershire Sauce, baking soda, baking powder, all commercially prepared foods, sea salt, rock salt, Kosher salt, Accent

Sample Menu -LS = Low Sodium

Breakfast:

1/2 c. Fresh Fruit/1 Egg
1/2 c. Oatmeal
2 slices Bread/1t.Marg.
1 c. Skim Milk/Coffee
1 T. Jelly/1/2 oz. Cream

Lunch & Supper:

3 oz. Baked Chicken
1/2 c. Rice or Potatoes
1 c. Broccoli or Beans
2 Roll/Bread/1t.Marg.
1 c.Fruit/1 c. Skim Milk
Toss Salad/Dressing
Ice Tea

Bedtime Snack:

Fruited Congeal Salad or 1 Bread or Starch
Tea or Coffee or Cola as described

Avoid: above use in small amounts only!!!

No Added Salt

(NAS-4 Gram Sodium)

Patient: _____

Healthy Meal Plan:

**1-Eat 3 Meals and a Bedtime
Snack daily!**

2-Do Not Skip Meals!

**3-Limit Sodium to 1/2 teaspoon
per day.**

**4-Exercise 20-25 minutes
daily**

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Breakfast: **L**unch: **S**upper: **S**nack:

Fruit Group: *Fresh Fruit is Best* 1/2 c. Apples, Applesauce, Apricots, Apricot Nectar, Bananas, Blackberries, Blueberries, Cantaloupe, Cherries, Cranberries, Figs, Fruit Cocktail, Gooseberries, Grapefruit, Grapefruit Juice, Grape Juice, Kiwi, Lemon Juice, Mango, Melons, Nectarines, Oranges, Papaya, Papaya Nectar, Peach Nectar, Peaches, Pears, Pear Nectar, Pineapple, Plums, Prunes, Raspberries, Rhubarb, Strawberries 1 c. Watermelon or Cranberry Juice, Grapes 1 Apple, Peach, Pear, Tangerine or Fresh Fruit 15 Grapes 1/2 small Grapefruit, Lemon **Avoid:** All **Dried Fruit, crystallized or glazed fruits and maraschino cherries. (1-2 times per week)**

<u>Brand</u>	<u>Mg.per t.</u>	<u>Na</u>	<u>K</u>
Co-Salt		5.5	1980
<i>Adolph's Salt Substitute</i>		11	2400
Morton's Salt Substitute		5.5	2400
<i>Morton's Lite Salt</i>		1320	1466
1 t. Salt = 2000 mg. of Na			

Breakfast: **L**unch: **S**upper: **S**nack:

Milk Group; 1 c. Whole, Low Fat, Skim, Dry, Evaporated, Condensed, Low Sodium Milk, Yogurt **Avoid:** Butter, chocolate, malted, & instant milk **NAS BACK**

Breakfast: **L**unch: **S**upper: **S**nack:

Bread or Starch Group; 6-8 Regular Breads/Day 1 sl. Bread, 6 Crackers, Matzo, Melba Toast, Puffed Wheat/Rice, Shredded Wheat, Cooked Cereals prepared without salt, Dry Cereals (Containing < 6 mg. sodium per 100 gm.) Biscuits, Cornbread, Pancakes, or Waffles made with Low Sodium baking powder, meal, flour, & no salt. Rice, Noodles, Spaghetti, Pasta. Whole grains or enriched breads, salt-free potato chips, barley, macaroni **Avoid:** Salted crackers, salt, baking powder, baking soda, instant potatoes, chips, cheetos, snack type items from the vending machines, salted nuts, popcorn, tomato juice, paste, & canned tomato products-2-3 Daily

Breakfast: **L**unch: **S**upper: **S**nack:

Fat Group; Unsaturated-Good Saturated-Bad
Unsaturated-1 t. -Unsalted Margarine, Mayonnaise, Oil- (canola, corn, olive, peanut, safflower, soybean, sunflower), **1 T.**-Reduced-Fat or Low-Fat Salad Dressing or Mayonnaise
Saturated- 1 t.-Unsalted Butter, Solid Shortening, 2T.Coconut, 2 T. Sour Cream, 3 T. Reduced Fat, **1 T.** Powdered Coffee Creamer, 2 T. Cream
Avoid: Bacon Fat, Salted Butter, Margarine, Salt Pork, Regular Salad Dressing, olives, salted nuts, gravies, dips, chitterlings, bacon, ham, sausage, non-dairy creamer (1-2 per week)

Breakfast: **L**unch: **S**upper: **S**nack:

Vegetable Group; 1/2 c. fresh, unsalted frozen or low sodium, tomato juice, artichokes, beans, bean sprouts, beets, broccoli, brussel sprouts, cabbage, carrots, cauliflower, celery, cucumber, eggplant, greens, onions, kale, mustard greens, Kohlrabi, leeks, mushrooms, okra, pea pods, peppers, radishes, lettuce/salad greens, spinach, summer squash, tomato (fresh), turnips, watercress, water chestnuts, zucchini, asparagus
Avoid: pickles, sauerkraut, (V-8 Juice-1/2/Day) vegetables in brine, regular canned vegetables and vegetable juices.(1-2 Daily)

Breakfast: **L**unch: **S**upper: **S**nack:

Meat Group; limit 6 oz./Day- all fresh or frozen poultry or freshwater fish, low sodium canned tuna, meats, fish, peanut butter, cottage cheese, cheese, cream cheese, dried peas & beans, unsalted salmon, soybeans & textured vegetable protein **Avoid:** cured, salted, canned, smoked foods as ham, bacon, sausage, ham, salt pork, luncheon meats, frankfurters, scallops, canned tuna-fish, salmon, sardines, potted meat, vienna sausage, regular peanut butter, cheeses, anchovies, marinated herring, corned beef - can use all but limit to 1-2 servings per day. (1-2 per week)