## CHF Handbook

KNOWLEDGE IS POWER



Strong Hearts CHF Clinic

ARKANSAS Heart H**o**spital



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# Congestive Heart Failure Overview



**CONGESTIVE HEART FAILURE (CHF)** is a scary sounding name for a fairly common disease.

Heart Failure simply means that the heart is not pumping enough blood to meet the body's demands. This weakened pump frequently results in fluid backing up in your lungs or legs and abdomen.

#### Common Symptoms of new or worsening heart failure:

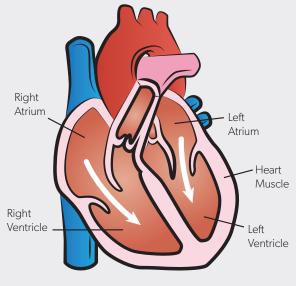
- shortness of breath that is worse when you sleep
- swollen feet, ankles and legs
- tightness in belly
- Increased fatigue and shortness of breath with routine activity
- rapid weight gain of 3 pounds in a day or 5 pounds or more in a week

However, being diagnosed with CHF does not mean you can't enjoy life. With proper treatment and your active involvement in committing to lifestyle changes (most importantly, a low sodium diet), you can significantly improve your symptoms, feel better, and live a longer and more active life. Learning as much as possible about your condition will enable you to work with your health care team to accomplish these goals.

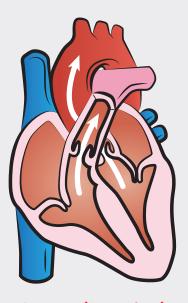
Heart failure is usually diagnosed with an Echocardiogram (or "echo") which uses ultrasound waves to show an image of your heart as it is pumping. Normally, about 60% of the blood is pumped out of your heart with each beat. This number is called the EJECTION FRACTION or EF. This number is important to diagnose what kind of heart failure you have.

## NORMAL HEART FUNCTION

Your heart is a pumping muscle that works nonstop to keep your body supplied with oxygen-rich blood.
Signals from the heart's electrical system set the speed and pattern of the pump's rhythm.
Valves keep the blood moving in one direction, through the heart's four chambers.



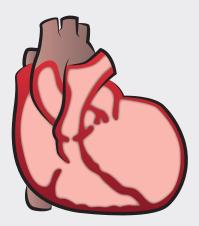
**Diastole (Filling)**The ventricles fill normally with blood.



Systole (Pumping)
The ventricles pump out about 60% of the blood.

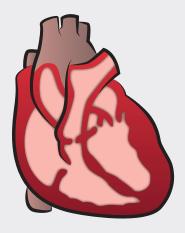
## HEART MUSCLE AND CHF

Past heart attacks and other risk factors may cause your heart muscle to become damaged. This can result in heart muscle that is either too thin and weak, or too thick and stiff to function properly.



#### **SYSTOLIC FAILURE**

Thin and weak heart walls are a sign of Systolic Failure.



#### **DIASTOLIC FAILURE**

Thick and stiff heart walls are a sign of Diastolic Failure.

#### SYSTOLIC HEART FAILURE

Systole is the squeezing phase of the heartbeat. Systolic failure means the heart has trouble squeezing. Commonly, the heart muscle has been damaged from a past heart attack and is now thinner, weaker, and more enlarged than it should be. The EF may be 45% or less.

#### **Treatment of Systolic Heart Failure**

"Evidence-based medications" have been proven in clinical trials to decrease death rates and hospital readmissions for heart failure patients.

These medications act by blocking bad chemicals in your bloodstream that make heart failure worse over time.

These medications include:

- ACE (angiotensin converting enzyme) inhibitors which relax blood vessels so the heart does not have to pump against too much pressure. Common ACE inhibitors include Lisinopril, Enalapril and Ramipril.
- ARBs (angiotensin receptor blockers) are an acceptable alternative to ACE inhibitors if they cause a cough. Common ARBs are Valsartan, Candesartan and Losartan.
- Beta Blockers will lower your heart rate ease the workload of the heart. The beta blockers used for treatment of heart failure are Carvedilol, Metoprolol Succinate and Bisoprolol.
- Aldosterone Antagonists (such as Spironolactone or Eplerenone) block bad stress hormones which make heart failure worse.

Do not stop these medications on your own because you think your blood pressure is too low! Many people with Heart Failure will have a low blood pressure. Although these medications can lower your blood pressure, the purpose of these medications when used to treat heart failure is to increase your lifespan and decrease heart failure symptoms which lead to hospitalizations. If you think your blood pressure is too low, please discuss this with your doctor before making any medication changes yourself.

#### **DIASTOLIC HEART FAILURE**

Diastole is the relaxation phase of the heartbeat. Diastolic failure means the heart muscle has trouble relaxing. The muscle walls are thicker and stiffer than a normal heart. Therefore, the heart has trouble filling with blood. Pumping against high blood pressure is the most common cause of diastolic heart failure. Patients with diastolic heart failure may have an EF range of 45-70%.

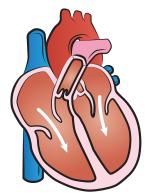
#### **Treatment of Diastolic Heart Failure**

The main treatment of diastolic heart failure is control of high blood pressure. The "evidence based medications" for systolic heart failure listed on page 6 can be used to lower blood pressure in people with diastolic failure.

#### **Diuretics**

Diuretics or "water pills" are used to pull excess fluid from your blood stream by making you pass more urine. Diuretics are necessary for most heart failure patients, but it is important to keep the doses as low as possible. High doses of diuretics are hard on your kidneys. Your doctor's ability to lower your diuretic dose depends on your willingness to follow a low sodium diet and fluid restriction as discussed below.

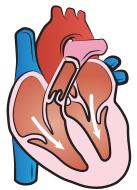




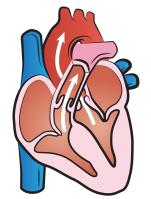
The enlarged ventricles fill with blood.



#### DIASTOLIC DYSFUNCTION



The stiff ventricles fill with less blood than normal.

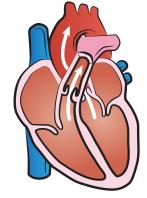


The ventricular squeezing or pumping is normal, but the amount may be lower than normal.

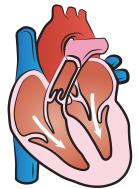


**Diastole** 

(Filling)



The ventricles pump out less than 40 to 50% of the blood.



**Systole** (Pumping)

**Diastole** 

(Filling)

#### LIFESTYLE CHANGES

#### 3 things YOU can do to control your heart failure



#### 1. Limit Sodium

Sodium is a mineral that is necessary for your body, but too much sodium in your diet will cause your symptoms to worsen and frequently results in a trip to the emergency room.

Water is attracted to sodium. If you eat too much sodium, you will pull excess fluid into your blood stream that your weakened heart will have to pump. When your heart is unable to keep up with the increased fluid volume, it will back up into your lungs and/or be retained in your legs and abdomen (edema). These symptoms frequently result in a trip to the Emergency Room.

Eat no more than **2000mg** of sodium daily (unless otherwise directed by your doctor).

Record your sodium intake from each meal on the Daily Food Diary at the end of this booklet. Additional copies of the Daily Food Diary can be downloaded from arheart.com/services/strongheart-clinic.



#### 2. Limit Fluid

If you have heart failure and are taking strong diuretics such as Lasix (furosemide), Bumex (bumetanide) or Demedex (torsemide), you usually need to limit fluid intake. Otherwise you will undo the work of the diuretics in pulling fluid out of your bloodstream (You can't drain the sink if you don't turn off the faucet). Everything you drink is absorbed by your blood stream and then must be pumped by your heart before it is urinated out. Drinking more fluid than your heart can pump will cause your body to retain excess fluid and make heart failure symptoms worsen.

If you have had a hospitalization due to fluid overload with heart failure and are taking diuretic pills, you should limit your fluid intake to **64 ounces a day** (unless otherwise directed by your doctor). Count anything that is liquid at room temperature including the water you take your pills with.

Record your fluid intake on the Daily Food Diary at the end of this booklet.

Tip: Try a cup of ice chips instead of drinking glasses of water. It will last longer.



#### 3. Daily Weights

Increases in your daily weight are an important sign of worsening heart failure. A rapid weight gain of 3 pounds overnight or 5 or more pounds in a week is usually due to fluid overload. Keeping a record of your daily weights will help you identify fluid overload at the early stages so you can contact your healthcare provider who can adjust your medications to keep you out of the hospital.

#### Weigh once a day in the morning:

- after you have emptied your bladder before eating
- wearing the same amount of clothing

Record your daily weights on the Daily Food Diary in this booklet. You may be able to see a connection between increases in your weight and increased sodium intake the day before.



### THE CHF STOPLIGHT

### Identifying Fluid Overload

Health Care Professional's

. 1	
Name:	Phone Number:
Value	r none mumber

#### **GREEN ZONE: ALL CLEAR!**

- ✓ No shortness of breath
- ✓ No Swelling
- ✔ Weight is stable
- ✔ No chest pain
- ✓ No decrease in your activity level



#### **GREEN ZONE MEANS:**

- ✓ Your symptoms are under control
- ✓ Keep taking your medications as directed by your doctor
- ✓ Keep all your medical appointments
- ✓ Eat foods that are low in salt
- ✓ Weigh yourself daily

Goal Weight:

#### **YELLOW ZONE: CAUTION!**

- ✓ Weight gain of 3 or more pounds overnight or 5 pounds of more in a week
- ✓ Coughing more
- ✓ More swelling in legs or belly
- ✓ More short of breath when active
- ✓ Sleeping on more pillows?



#### **YELLOW ZONE MEANS:**

- ✓ You have fluid overload
- ✓ Your medications may need to be adjusted
- ✓ Call your health care professional

CHF Clinic: M-F 7:30 a.m.-4 p.m. | (501) 978-8633 Arkansas Heart Hospital Clinic: (501) 664-5860 Weekends or after hours, call Medical Exchange (501) 663-8400, and ask for physician on call for AHH.

#### **RED ZONE: DANGER!**

- ✓ Shortness of breath all the time, even at rest
- ✔ Chest pain that doesn't go away
- ✓ Wheezing or chest tightness at rest
- ✔ Need to sit up to sleep
- ✓ Weight gain of 7 pounds or more
- ✓ Confusion



#### **RED ZONE MEANS:**

✓ You need to call your physician

#### **RIGHT AWAY!**

PHYSICIAN:
PHONE NUMBER:
If unable to contact your physician right away, call 911.

#### **HEART FAILURE HOME CARE INSTRUCTIONS**



#### Report these signs of dehydration to your Health Care Provider:

Weight loss of 5 pounds or more in a week that may occur with one or more of the following symptoms:

- Increased lightheadedness, dizziness
- Decreased blood pressure
- Decreased urination



#### Keep all doctors' appointments.

After a hospitalization with Heart Failure, changes in your medication (especially diuretics) require close follow-up by your Health Care Provider and monitoring of blood work to prevent potential problems such as heart rhythm disturbances and kidney problems.



#### Abstain from alcohol.

Heart Failure patients should abstain from alcohol. Alcohol worsens Heart Failure and in some cases, large sustained amounts can even cause Heart Failure.



#### Avoid over-the-counter pain relievers.

Heart Failure patients should avoid all over-the-counter pain relievers (such as Advil, Motrin, Aleve, Naproxen, Ibuprofen) except for Tylenol (acetaminophen). Also prescription Cox-2 inhibitor pain medications (such as Celebrex and Vioxx) should be avoided. These meds inhibit the action of your diuretics and can cause fluid retention which can lead to another ER visit or hospitalization.



#### Take medications exactly as ordered.

After you return home, carefully compare your discharge medication list from the hospital to the medications you were taking before coming to the hospital. If you have any questions about med changes, please call your doctor.



#### **Activity**

- Do some kind of physical activity every day. Activity can make you feel better and may also decrease your symptoms and improve your heart's function.
- Learn how to balance activity with your need for rest.
- Whatever you do, take it step by step and give yourself plenty of time to adjust to being more active.
- Discontinue activities if you have shortness of breath, chest pain, dizziness, extreme fatigue, or a racing heart.



## IT'S NEVER TOO LATE!

#### **Smoking Cessation for Heart Failure Patients:**

- Heart Failure patients that quit smoking have a 30% lower rate of death than Heart Failure patients that smoke.
- This improvement in death rates from quitting smoking is the about the same benefit that patients gain from taking important Heart Failure medications such as ACE inhibitors, beta blockers and aldosterone antagonists.
- The benefits of quitting smoking kick in within one year for Heart Failure patients (as compared to decreases in cancer risk which accrue at a slower rate).
- When tobacco addiction can be documented as a contributing factor to Heart Failure, smoking cessation therapy is often covered on a case-by-case basis by Medicare. Medicaid and private insurance vary in their coverage policies.

#### **RESOURCES:**

- Arheart.com/services/strong-heart-clinic This is AHH's CHF Clinic website. You can download food diaries, watch the AHH CHF educational videos and more.
- Aahfn.site-ym.com/mpage/patiented. The American Association of Heart Failure Nurses patient education website-all aspects of heart failure.
- Heartfailure.org has HF information in Spanish.
- Dietfacts.com lists sodium content of foods from common restaurants, including fast food.
- Healthyheartmarket.com is a resource for ordering low sodium and no-sodium products for cooking needs (for example, no-sodium baking powder and baking soda), condiments (low sodium BBQ sauce) and snacks.
- Megaheart.com has low sodium recipes and many cooking tips from a chef that also has heart failure.

Heart Failure is a challenging disease to manage. The goal of improving your quality of life and maintaining independence as much as possible requires your active involvement and cooperation. The more you know about your condition, the better you and your health care team will be able to accomplish these goals together.

#### **LOW SODIUM TIPS**

Cutting down on sodium in your diet is the most important lifestyle change you can make to feel better and improve your heart failure symptoms. After you leave the hospital, it is very important that you keep track of your sodium and fluid intake on your Daily Food Diary. The following tips are helpful when transitioning to a low sodium diet:

**READ** nutrition labels on food. Sodium can be hidden in surprising places such as cold breakfast cereal, doughnuts, muffins and cake.

**LIMIT** sodium to 500mg per meal. This will allow for some snacks during the day. When buying food at the grocery store, if the sodium content on the label is more than 250mg/serving, put the food back on the shelf.

**COMPLETE** your food diary every day. Refer to the attached "Sodium Contents of Foods" along with nutrition labels on food when calculating your daily sodium intake.

**LEARN** to use herbs, spices, onion and garlic for flavor. Try seasoning with lemon or lime juice.

**CHOOSE** fresh meats instead of cured or processed meats. Choose fresh or frozen vegetables instead of canned. Avoid canned soups.

**REPLACE** table salt with an herb mix or sodium-free seasoning blend. These are available in the spice section at the grocery story. Read the nutrition label and make sure the sodium content is "0 mg". Talk to your doctor before using a salt substitute.

**BUY** a low sodium cookbook. Experiment with new recipes. You may discover something new that you really like!

**BE PATIENT.** You will eventually lose your craving for salt after a couple of months (this is a learned desire that can be un-learned). You will begin to appreciate the natural tastes of fresh food, fruits and vegetables, and will begin to prefer these foods over the processed versions.

**ENJOY** feeling better, sleeping better and participating in more activities that you used to enjoy!

#### **Nutrition Facts** Serving Size 2/3 cup (55g) Servings Per Container About 8 **Amount Per Serving** Calories 230 Calories from Fat 40 % Daily Value\* **Total Fat 8g** 12% Saturated Fat 1g 5% Trans Fat 0g Cholesterol 0mg 0% Sodium 160mg Total Carbohydrate 37g 12% Dietary Fiber 4g 16% Sugars 1g Protein 3g Vitamin A 10% Vitamin C 8% Calcium 20% 45% Iron \* Percent Daily Values are based on a 2,000 calorie diet. Your daily value may be higher or lower depending on your calorie needs. Calories: 2,000 2,500 Total Fat Less than 65g 80g Sat Fat Less than 20g 25g Cholesterol 300mg 300mg Less than 2,400mg 2,400mg Sodium Less than Total Carbohydrate 300g 375g Dietary Fiber 25g 30g

Always check the serving size at the top. The amount of sodium listed in "mg" is the amount contained in ONE serving.

Track the Sodium content in MILLIGRAMS (mg), not percentage of Daily value.

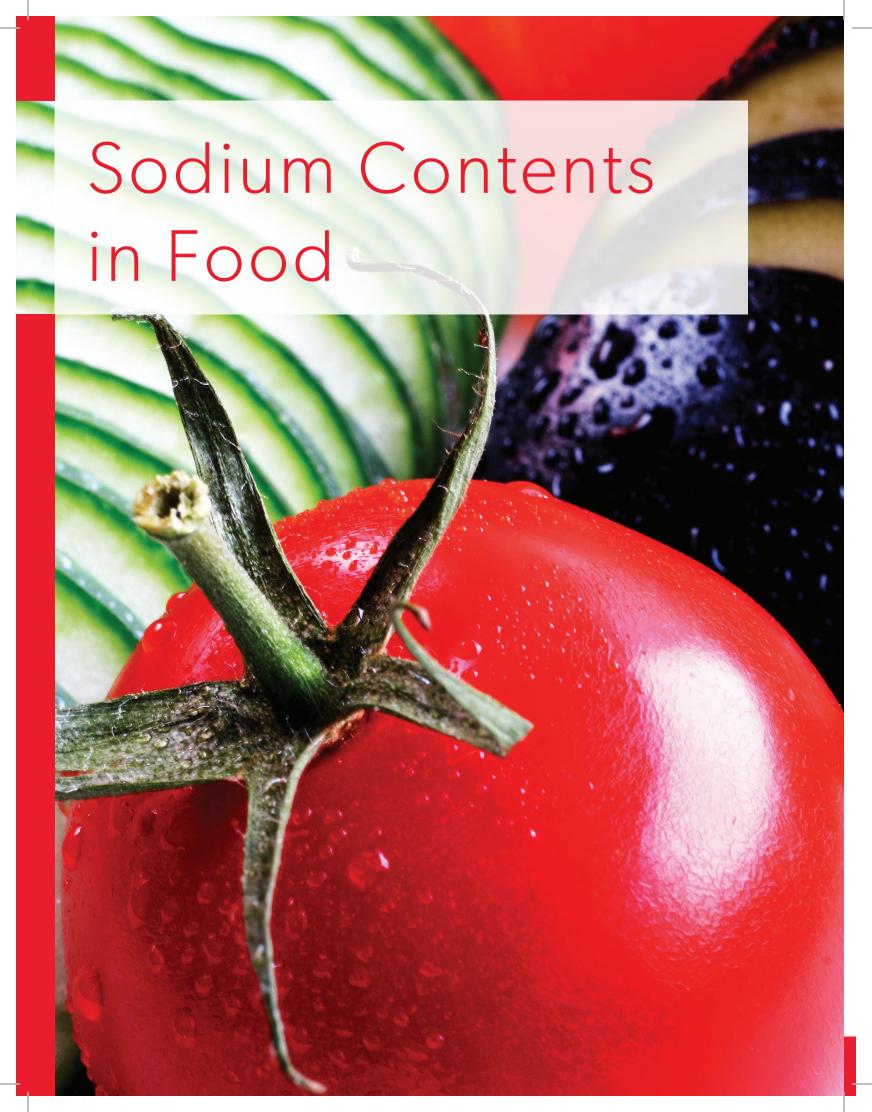
## When recording sodium content in your Daily Food Diary,

- refer to the sodium content on Nutrition Labels for packaged food.
- Refer to the "Sodium contents in Food" section of this booklet for foods that may not have a nutritional label.

#### Remember:

If it's pre-made, pre-sliced, pre-mixed or pre-pared...

#### IT'S PRE-SALTED!



#### **BAKING** (sodium content in mg.)

#### **Baking Chocolate**

- Semi-Sweet, 1 oz 0
- Sweet, 1 oz 30
- Unsweetened, 1 oz 7
- White, 1 oz 30

#### **Baking Chocolate Chips**

- Chocolate Semi-Sweet, 1 oz 0
- Butterscotch, 1 oz 30
- White, 1 oz 40
- Peanut Butter, 1 oz 70

#### **Breadcrumbs**

- Breadcrumbs, plain ¼ cup 233
- Breadcrumbs, seasoned ¼ cup 795
- Cracker meal, ¼ cup 8
- Cookie crumbs, ¼ cup 110
- Graham cracker crumbs, ¼ cup 200

#### **Cocoa Powder**

• Unsweetened, 2 tablespoons - 2

#### Coconut

- Coconut milk, ¼ cup 7
- Shredded, unsweetened, 1 oz 10
- Shredded, sweetened, 1 oz 74

#### Cornmeal

- Degermed, enriched yellow, 1 cup 4
- Self-rising, degermed, enriched yellow, 1 cup - 1860
- Whole grain, yellow, 1 cup 43
- Cornstarch, 1 tablespoon 1

#### Flour

- All-purpose flour, 1 cup 3
- Self-rising flour, 1 cup 155
- Cake flour, 1 cup 0
- Potato flour, 1 cup 88
- Rice flour, white 1 cup 0
- Rice flour, brown 1 cup 13
- Rye flour, dark 1 cup 1
- Rye flour, light 1 cup 2
- Soy flour, 1 cup 11
- Wheat flour, whole grain 1 cup 6

#### **Flour**

- Baking powder, 1 teaspoon 488
- Baking soda, 1 teaspoon 1,259
- Cream of tarter, 1 teaspoon 2
- Yeast, bakers, dry 1 tablespoon 0

#### Milk, Milk Substitutes - Canned & Powdered

- Buttermilk, powdered 1 tablespoon 41
- Condensed milk, sweetened, canned ½ cup - 194
- Evaporated milk, canned ½ cup 133
- Evaporated milk, canned, skim ½ cup 147
- Goat milk, powdered 1 tablespoon 58
- Goat milk, canned ½ cup 120
- Milk, powdered, non-fat 1 tablespoon 23

#### **Pastry Dough**

- Phyllo dough (fillo), 1 sheet 92
- Puff pastry, 1/6 sheet 200
- Puff pastry shell, 1 shell 230

#### **Pie Crusts**

- Cookie crumb crust, chocolate, 1/8 188
- Cookie crumb crust, vanilla, 1/8 113
- Flour crust, frozen 1/8 105
- Flour crust from mix, 1/8 146
- Graham cracker crust, 1/8 168

#### **Sugar Substitutes**

• Sugar substitutes, all 1 teaspoon - 0

#### **Sweeteners**

- Corn syrup, dark ¼ cup 127
- Corn syrup, light ¼ cup 99
- Fruit sweetener ¼ cup 10
- Honey 1/4 cup 3
- Molasses ¼ cup 30
- Rice syrup, brown ¼ cup 5
- Sugar, brown ¼ cup 22
- Sugar, granulated ¼ cup 1
- Sugar, powdered ¼ cup 0

#### **BEVERAGES** (sodium content in mg.)

#### Coffee

- Brewed from grounds, tap water 6 fl oz 4
- Instant, tap water 6 fl oz 4
- Espresso, restaurant prepared 2 fl oz 8

#### **Soft Drinks**

- Coca Cola classic, caffeine free 35
- Diet Coke, 35
- Coca Cola vanilla coke 35
- Dr. Pepper 35
- Fresca 35
- Ginger Ale 35
- Green River 15
- Mountain Dew 50
- Diet Mountain Dew 38
- Mountain Dew Code Red 110

- Pepsi 35
- Diet Pepsi 35
- Pepsi, caffeine free 25
- 7 UP 50
- Diet Sierra Mist 35
- Slice 35
- Sprite 45
- Tonic 35

#### Tea

- Tea, brewed with tap water, 6 fl oz 5
- Tea, herb, chamomile, 6 fl oz 2
- Tea, other herb teas, 6 fl oz 2
- Tea, instant, sweeten w/ saccharin, lemon,
   6 fl oz 18

#### **BREAD PRODUCTS** (sodium content in mg.)

#### Bagels (medium) 2.5 oz

- Cinnamon raisin bagel 338
- Egg bagel 530
- Oat bran bagel 532
- Plain bagel 561
- Plain bagel (mini) 1oz 139
- Plain bagel (large) 3.9 oz 700

#### Bread, 1 oz slice

- Crumbs, dry, seasoned, 1 cup 2111
- Croissant, plain 212
- Egg bread, ½ inch slice 197
- Foccacia 308
- French bread 173
- French roll 173
- Kaiser roll 154
- Mixed grain bread 138
- Oat bran bread 115
- Oat bran, reduced calorie 100
- Oatmeal bread 170
- Pita (pocket) bread, whole wheat (4in.) 340
- Protein (gluten) bread 155
- Pumpernickel bread 190
- Raisin bread 111

- Rice bran bread 125
- Rye bread 187
- Rye, reduced calorie 115
- Sourdough 173
- Wheat 148
- Wheat, cracked wheat bread 153
- Wheat, reduced calorie 145
- White bread 153
- White, reduced calorie 128

#### Cake type breads

- Banana bread (recipe w/ margarine),
  1 slice 181
- Cornbread, dry mix, prepared, 1 piece (2 x 2 inch square 467
- Doughnut, cake type, plain 1 257
- Doughnut hole, cake type plain 1 76
- Doughnut, yeast-leavened, glazed 1 205
- Doughnut hole, yeast-leavened, glazed 1 44

#### **BREAD PRODUCTS** (Continued)

#### **English Muffins**

- Cinnamon raisin, 2 oz 255
- Granola, 2.4 oz 275
- Mixed grain, 2.4 oz 275
- Plain, 2 oz 290
- Wheat, cracked 1 slice 135
- Whole wheat, 2.4 oz 420

#### **Muffins**

- Blueberry, commercially prepared, 1 255
- Blueberry, from recipe w/ 2% milk 1 251
- Corn, commercially prepared, 1 297
- Corn, dry mix, 1 398
- Oat bran, 1 224

#### **BREAKFAST FOODS** (sodium content in mg.)

#### Cereal

- All-Bran, 1cup 146
- Apple Jacks, 1cup 143
- Basic 4, 1 cup 316
- Cap'n Crunch, 1 cup 269
- Cheerios, 1 cup 213
- Cheerios, Apple Cinnamon, 1 cup 160
- Cheerios, Honey Nut, 1 cup 269
- Chex, Corn, 1 cup 288
- Chex, Rice, 1 cup 234
- Chex, Wheat, 1 cup 267
- Cinnamon Toast Crunch, 1 cup 275
- Cocoa Crispies, 1 cup 263
- Cocoa Puffs, 1 cup 171
- Corn Flakes, Kellogg, 1 cup 202
- Corn Pops, 1 cup 120
- Cream of wheat, regular, cooked w/o salt - 146
- Cream of Wheat, quick, without salt 139
- Cream of Wheat, mix & eat, 1 packet 241
- Crispix, 1 cup 210
- Froot Loops, 1 cup 150
- Frosted Flakes, Kellogg, 1 cup 197
- Golden Grahams, 1 cup 359
- Granola with raisins, Quaker, 1 cup 238
- Grits, corn, cooked without salt, 1 cup 5
- Honey Nut Clusters, 1 cup 249
- Kix, 1 cup 200

- Life Quaker, 1 cup 219
- Life, Cinnamon, 1 cup 204
- Lucky Charms, 1 cup 203
- Malt- O-Meal, plain or chocolate, 1 cup 2
- Oats, instant, plain, 1 packet 80
- Oats, regular & quick, cooked w/o salt, 1 cup - 2
- Oatmeal, instant, Quaker, Maple & Brown Sugar, 1 packet - 253
- Oatmeal, instant, Quaker, Apples & Cinnamon, 1 packet - 165
- Puffed Rice, 1 cup 0
- Puffed Wheat, 1 cup 0
- Raisin Bran, Kellogg, 1 cup 362
- Raisin Nut Bran, 1 cup 250
- Reese's Puffs, 1 cup 223
- Rice Krispies, 1 cup 255
- Shredded Wheat, 2 biscuits 3
- Special K, 1 cup 224
- Total, 1 cup 157
- Total, Raisin Bran, 1 cup 239
- Total, Whole Grains, 1 cup 256
- Trix, 1 cup 194
- Wheat Bran Flakes, Kellogg, 1 cup 20
- Wheaties, 1 cup 218
- Wheaties, Frosted, 1 cup 272

#### **CONDIMENTS** (sodium content in mg.)

- Capers, 1 tablespoon 255
- Cranberry sauce, whole or jellied, ¼ cup 10
- Cranberry/ orange relish, ¼ cup 22
- Fruit butter, 1 tablespoon 10
- Horseradish, 1 teaspoon 50
- Jam or Jelly, 1 tablespoon 6
- Ketchup, 1 tablespoon 178
- Mayonnaise, 1 tablespoon 80
- Mayonnaise, light, 1 tablespoon 120
- Mayonnaise, fat free, 1 tablespoon 120
- Mayonnaise-type salad dressing, 1 tablespoon - 100

- Mayonnaise-type salad dressing, light, 1 tablespoon - 130
- Mustard, yellow, 1 teaspoon 56
- Mustard, Dijon, 1 teaspoon 120
- Olives, black, 0.5 oz 115
- Peanut butter, 2 tablespoons 150
- Pickle relish, sweet, 1 tablespoon 125
- Pickle relish, dill, 1 tablespoon 240
- Pickles, bread & butter, 1 oz 106
- Pickles, dill, 1 oz 359
- Pickles, sweet, 1 oz 263

#### **DAIRY PRODUCTS** (sodium content in mg.)

- Butter, 1 tablespoon 117
- Butter, unsalted, 1 tablespoon 2
- Butter spray, 2 sprays 5
- Butter, whipped, 1 tablespoon 55
- Margarine, 1 tablespoon 105
- Margarine, unsalted, 1 tablespoon 0

#### Cheese

- American processed, sliced 406
- Asiago 400
- Blue 396
- Brick 159
- Brie 178
- Camembert 239
- Cheddar 176
- Colby 171
- Cottage cheese, 4 oz 430
- Cottage cheese, low fat, 4 oz 360
- Cottage cheese, fat free, 4oz 380
- Edam 274
- Feta 316
- Fontina 227
- Goat 104
- Gorgonzola 350
- Gouda 232
- Gruyere 95

- Monterey jack 152
- Mozzarella 118
- Mozzarella, part skim 150
- Parmesan 454
- Processed, boxed 410
- Processed spread, jar 490
- Provolone 248
- Ricotta, ¼ cup 52
- Ricotta, part skim, ¼ cup 78
- Romano 340
- Roquefort 513
- Stilton 220
- Swiss 74

#### **Cream Cheese (2 Tablespoons)**

- Cream cheese 84
- Cream cheese, light 150
- Cream cheese, fat free 135

#### Eggs (mg)

- Egg, whole, small 47
- Egg, whole, medium 55
- Egg, whole, large 63
- Egg, white, large 55
- Egg, yolk, large 12
- Egg substitute, ¼ cup (1 egg equivalent) 115

#### **DAIRY PRODUCTS (Continued)**

#### **Milk Products**

- Milk, whole 120
- Milk, 2% 122
- Milk, 1% 123
- Milk, nonfat 127
- Buttermilk 157
- Chocolate milk, ready to drink 150
- Eggnog, prepared 138
- Goat milk 122
- Half & half, 1 tablespoon 6
- Rice milk 70
- Soy milk 85

- Whipping cream, heavy, 1 Tablespoon 6
- Whipping cream light, 1 Tablespoon 5

#### **Sour Cream (2 Tablespoons)**

- Sour cream regular 15
- Sour cream, reduced fat 25
- Sour cream, fat free 40

#### Yogurt (8 oz)

- Yogurt, whole milk, plain 114
- Yogurt, low fat 172
- Yogurt, fat free 187
- Yogurt, low fat, fruit flavored 143

#### **DESSERTS** (sodium content in mg.)

#### **Cake**

- Angel food, commercially prepared,
   1 piece 210
- Angel food, dry mix, prepared, 1 piece 255
- Boston cream pie, commercially prepared,
   1 piece 132
- Chocolate w/ chocolate frosting, commercially prepared, 1 piece - 214
- Chocolate w/o frosting, prepared from recipe, 1 piece - 299
- Fruitcake, commercially prepared,
   1 piece 116
- Gingerbread, prepared from recipe,
   1 piece 242

- Pound cake, butter, commercially prepared,
   1 piece 111
- Pound cake, commercially prepared, fat-free, 1 piece 95
- Shortcake, biscuit type, 1 piece 329
- Snack cake, crème-filled, chocolate w/ frosting, 1 cupcake - 213
- Snack cake, crème filled, sponge, 1 cake 155
- White cake w/ coconut frosting, recipe, 1 piece - 318
- White cake w/o frosting, recipe, 1 piece 242
- Yellow cake w/ chocolate frosting, commercially prepared, 1 piece - 216

#### FISH & SHELLFISH (3 oz raw, not processed) (sodium content in mg.)

- Anchovy 87
- Bass 58
- Catfish 51
- Caviar 1,871
- Clams 31
- Cod 59
- Crab 619

- Flounder 66
- Halibut 46
- Herring 57
- Lobster 179
- Oysters 62
- Perch, Atlantic 67
- Perch, Pacific 54

#### FISH & SHELLFISH (Continued)

- Red snapper 57
- Salmon, Atlantic 63
- Salmon, Chinook 38
- Salmon, coho 41
- Scallops 217
- Shrimp 119

- Sole 66
- Swordfish 46
- Trout, brook 40
- Trout, rainbow 69
- Tuna, albacore 34
- Tuna, yellowfin 31

#### FRUIT, DRIED (1 oz) (sodium content in mg.)

- Apples 25
- Apricots 3
- Dates 1
- Figs 3

- Pears 2
- Prunes, pitted 1
- Raisins, seedless 3

#### FRUIT, FRESH (sodium content in mg.)

- Apples, 1 medium 0
- Apricots, 1 medium negligible
- Avocados, ½ medium 10
- Bananas, 1 medium 1
- Blackberries 0
- Blueberries, ½ cup 4
- Cantaloupe, 1/8 of melon 5
- Cherries, sweet 0
- Cherries, sour, 1 cup 5
- Cranberries, 1 cup 1
- Figs, 1 medium 1
- Grapefruit 9
- Grapes, 1 cup 2
- Guavas, 1 medium 2
- Honeydew melon, ½ medium 7
- Kiwi fruit, 1 3
- Lemons, 1 medium 1

- Limes, 1 medium 1
- Mangos, 1 medium 2
- Nectarines 0
- Oranges 0
- Passion fruit, 1 fruit 5
- Papayas, 1 medium 9
- Peaches O
- Pears 0
- Persimmons, 1 medium 1
- Pineapples, chopped, 1 cup 2
- Plums O
- Pomegranates, 1 medium 5
- Raspberries 0
- Strawberries-, 1/2 cup 1
- Tangerines, 1 medium 1
- Tomatoes, medium 4
- Watermelon, cubed, 1 cup 3

#### HERBS, SPICES & SEASONINGS (1 tsp. dried) (sodium content in mg.)

- Allspice, ground 2
- Basil 1
- Bay leaf negligible
- Celery seed 4
- Chili powder 26
- Cinnamon, ground 1
- Cloves, ground 5
- Coriander seed 1
- Cumin seed 3
- Curry powder 1
- Ginger, ground 1
- MSG 492
- Nutmeg, ground negligible
- Onion powder 1
- Oregano negligible

- Paprika 1
- Parsley 2
- Pepper, black 1
- Pepper, cayenne 7
- Rosemary 1
- Saffron 1
- Sage negligible
- Salt 2,325 mg per teaspoon! DO NOT USE!
- Sugar negligible
- Tarragon 1
- Thyme 1
- Vanilla extract 0
- Vinegar negligible

#### MEATS & POULTRY (3 oz. raw, unprocessed) (sodium content in mg.)

#### **Beef**

- Chuck 65
- Flank 60
- Kidney 53
- Liver 62
- Porterhouse 47
- Rib roast 45
- Round Steak 44
- Rump 64
- Sirloin 44
- T-Bone 47

#### Chicken

- Breast 58
- Dark meat, roasted 79
- White meat, roasted 43

#### **Duck**

Duck, meat only - 64

#### **Hog Dogs**

• Varies by brand - 600-800

#### Lamb

- Leg 50
- Loin 49

- Rib 47
- Shoulder 55

#### Pork

- Bacon 621
- Blade 60
- Canadian bacon 1,197
- Ham, cured, canned 837
- Ham, fresh, lean part only 61
- Leg 47
- Loin 54
- Sirloin 37
- Spareribs 65
- Tenderloin 42

#### Quail - 43

Rabbit - 37

#### Sausage

• Varies by brand - 600-900

#### Squab - 43

#### Turkey, meat only

- Breast 51
- Dark meat, roasted 67
- White meat, roasted 54

#### **MEATS & POULTRY** (Continued)

#### Veal

- Breast 55
- Chuck 58
- Flank 49

- Loin 57
- Round 58

#### Venison - 77

#### NUTS, UNSALTED (1/4 Cup) (sodium content in mg.)

- Almonds, raw 4
- Brazil nuts, raw 1
- Cashews, dry roasted 6
- Coconut, dried 4
- Hazelnuts, raw 1
- Macadamia, dry roasted 2

- Peanuts, dry roasted 6
- Pecans, raw negligible
- Pine nuts, raw 2
- Pistachio, dry roasted 2
- Walnuts, raw negligible

#### **SALADS** (sodium content in mg.)

#### **Salad Dressings (2 tablespoons)**

- Blue Cheese 328
- Buttermilk, mix 250
- Caesar 290
- Caesar, fat free 330
- French 438
- French, low fat 252
- Italian 231
- Italian, low fat 236
- Italian, mix 300
- Italian, zesty 510
- Ranch 287
- Ranch, fat free 350

- Ranch, lite 300
- Ranch, mix 210
- Roquefort 328
- Russian 260
- Thousand Island 224
- Thousand Island, low-fat 300
- Vinegar & Oil 0

#### **Toppings**

- Bacon bits, 1 tablespoon 220
- Croutons, plain, 0.5 oz 100
- Croutons, seasoned, 0.5 oz 175

#### **SAUCES** (sodium content in mg.)

#### Gravy

- Au Jus, canned, ¼ cup 30
- Au Jus, mix, 1 tsp. 348
- Beef gravy, canned, ¼ cup 326
- Brown gravy, mix, ¼ cup 291
- Chicken gravy, canned, ¼ cup 343
- Chicken gravy, mix, ¼ cup 332
- Mushroom gravy, canned, ¼ cup 340
- Mushroom gravy, mix, ¼ cup 350
- Onion gravy, mix, ¼ cup 251
- Turkey gravy, canned, ¼ cup 344
- Turkey gravy, mix, ¼ cup 307

#### **Pasta Sauces**

- Alfredo, ½ cup 1,080
- Cheese, ½ cup 650
- Marinara, ready to eat, ½ cup 515
- Pesto, basil, ¼ cup 730
- Pesto, sun dried tomato, ¼ cup 710
- Spaghetti sauce, mix, ½ cup 848

#### **Other Sauces**

- Barbecue, grilling, 2 tablespoon 416
- Bean, 1 tablespoon 475
- Cheese, ready to serve, ¼ cup 522
- Cheese, mix, 1/4 cup 897

- Chili/garlic sauce, 1 tsp. 155
- Clam, red, ½ cup 510
- Cocktail, 1 tablespoon 210
- Curry, 2 tablespoons 144
- Chili/garlic sauce, 1 tsp. 155
- Clam, red, ½ cup 510
- Cocktail, 1 tablespoon 210
- Curry, 2 tablespoons 144
- Oyster, 1 tablespoon 675
- Peanut, 1 tablespoon 675
- Pizza, ready to eat, ¼ cup 410
- Plum, 1 tablespoon 140
- Salsa, 2 tablespoons 139
- Sloppy Joe, canned, ¼ cup 360
- Soy sauce, 1 tablespoon 914
- Soy sauce, light, 1 tablespoon 660
- Steak, 1 tablespoon 262
- Stir-fry, 1 tablespoon 570
- Sweet & sour, 1 tablespoon 130
- Tartar, 1 tablespoon 130
- Teriyaki, 1 tablespoon 260
- Teriyaki, light, 1 tablespoon 260
- Worcestershire, 1 tsp. 55

#### **SNACKS** (sodium content in mg.)

- Beef jerky, 1 large piece 438
- Chex mix, 2/3 cup 288
- Corn-based, extruded, chips, plain, loz 179
- Corn-based, extruded, chips, BBQ loz 216
- Corn-based, puff or twists, cheese 1 oz 298
- Fruit leather rolls 67
- Popcorn, air popped, 1 cup 0
- Popcorn, oil popped, 1 cup 97
- Pork skins, plain, 1 oz 521

#### **SOUPS, STEWS & CHILI** (sodium content in mg.)

#### **Bouillon & Broth (1 cup)**

- Beef bouillon 864
- Beef broth 782
- Chicken bouillon 1,152
- Chicken broth 763
- Chicken broth, reduced sodium 450
- Vegetable broth 980

#### Chili (1 cup)

- Chili mix 460
- Chili with beans 1,337
- Chili without beans 1,150

#### Soup (1 cup)

- Beef stew 1,250
- Black bean 1,198
- Chicken noodle 1,160

- Chicken with rice 815
- Chicken gumbo 954
- Clam chowder, Manhattan 578
- Clam chowder, New England 992
- Cream of celery 949
- Cream of chicken 986
- Cream of mushroom 918
- Cream of potato 1,000
- Minestrone 864
- Onion 1,053
- Oyster stew 1,041
- Split pea with ham 965
- Tomato 744
- Vegetable 791

#### **VEGETABLES, CANNED** (sodium content in mg.)

#### Artichoke (1/2 cup)

- Artichoke hearts 420
- Artichoke hearts, marinated 320

#### Asparagus (1/2 cup) - 346

#### Beans & Legumes (1/2 cup)

- Baked beans 504
- Black beans 480
- Butter beans 405
- Cannellini (white beans) 270
- Chickpeas (garbanzo beans) 359
- Great Northern beans 300
- Green beans 311
- Kidney beans (red beans) 444
- Lentils 236
- Lima beans 405
- Navy beans 587
- Pinto beans 353
- Soybeans 204
- Wax beans 360

Beets (1/2 cup) - 310

Carrots (1/2 cup) - 300

#### **Corn (1/2 cup)**

- Whole kernel corn 273
- Whole kernel corn, 50% less sodium 176

#### Green Beans (1/2 cup)

- Green beans 311
- Green beans, 50% less sodium 176

Peas & carrots (1/2 cup) - 332

Mushrooms (1/2 cup) - 400

Peas (1/2 cup) - 310

Potatoes (2/3 cup) - 450

**Pumpkin (1/2 cup) - 6** 

**Sauerkraut** (½ cup) - 661

**Spinach** (½ cup) - 373

Sweet potato ( $\frac{1}{2}$  cup) - 53

Yam - 30

#### **VEGETABLES, CANNED** (Continued)

#### **Tomatoes**

- Chopped, 1/2 cup 290
- Chopped, with spices, ½ cup 600
- Crushed, 1/2 cup 304
- Diced, ½ cup 290
- Diced with spices, ½ cup 600
- Puree, ¼ cup 249

- Paste, 2 tablespoons 259
- Sauce, ¼ cup 371
- Stewed, ½ cup 282
- Whole, ½ cup 270

#### Zucchini, Italian style - 427

#### **VEGETABLES, DRIED** (1/2 cup cooked) (sodium content in mg.)

- Kidney beans 2
- Lentils 13
- Lima beans 3

- Navy beans 1
- Split peas 12

#### **VEGETABLES, FRESH** (1/2 cup raw) (sodium content in mg.)

- Acorn squash 2
- Alfalfa sprouts 1
- Artichoke, 1 medium, steamed 79
- Asparagus 1
- Bamboo shoots 10
- Bean sprouts 20
- Beans, green 3
- Beets 49
- Bell peppers 2
- Broccoli 12
- Brussels sprouts 11
- Butternut squash 3
- Cabbage 14
- Cauliflower 8
- Celery 54
- Chilies 5
- Chives 2
- Chow Mein vegetables 422
- Corn 12
- Cucumbers 1
- Eggplant 2
- Garlic, 1 clove 1

- Ginger 6
- Hubbard squash 4
- Leeks 11
- Lettuce 2
- Mushrooms 1
- Onions 2
- Parsley 12
- Parsnips 7
- Peas, edible pod 4
- Peas, green 3
- Potatoes, medium, baked 16
- Pumpkins 1
- Radishes 14
- Shallots 10
- Spaghetti squash 9
- Spinach 22
- Squash, summer 1
- Squash, winter 2
- Sweet potatoes 9
- Tomatoes 4
- Turnips 44
- Water chestnuts 8

## Low Sodium Recipe Starter Kit



## angel biscuits

#### **MAKES APPROX. 10 BISCUITS**

- 1 pkg. yeast (0 mg sodium)
- 2 c. flour (6 mg sodium)
- 2 tbsp. sugar (0 mg sodium)
- $\frac{1}{2}$  c. buttermilk (80 mg sodium)
- ¼ c. lukewarm water (0 mg sodium)
- 3 tbsp. shortening or canola oil (see directions) - (0mg)
- 3 tbsp. Featherweight Baking Powder\* (can purchase at Whole Foods & on www.healthyheartmarket.com) - (0mg)

#### **Directions**

Soften yeast in warm water and set aside. Sift dry ingredients together. Cut shortening or mix canola oil into dry ingredients. Add milk and yeast mixture. Stir until well blended. Store in the refrigerator for 1 hour. Roll out and cut biscuits ½" thick, 2" wide. Let rise for 1 hour. Bake at 425 degrees for 10 minutes.

#### **Nutrition**

Each biscuit contains approximately 8.6 mg sodium

## baking powder cornbread

#### **MAKES 12 SERVINGS**

- 1 cup yellow cornmeal
- 1 cup bread flour
- ¼ cup granulated sugar
- 1 tablespoon Featherweight Baking Powder\* (can purchase at Whole Foods & on www.healthyheartmarket.com)
- ¼ cup unsalted applesauce
- 1 egg, lightly beaten
- 1 cup nonfat milk
- 2 tablespoons diced jalapeno peppers (optional)

#### **Directions**

Preheat oven to 400 degrees. Combine cornmeal, flour, sugar, & baking powder in a medium bowl. Combine applesauce, egg, & milk in another bowl. Mix well. Add wet mixture to dry mixture & stir until blended. Pour batter into a greased 8 inch square pan. Bake at 400 degrees for 25 minutes, or until wooden pick inserted into center comes out clean.

#### **Nutrition**

Sodium: 17 mg per serving Calories: 114 per serving

Carbohydrates: 24 g per serving

<sup>\*</sup> This is a no-sodium substitute for baking powder.

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## low sodium chili

#### **MAKES 8 SERVINGS**

- 1 pound lean ground beef
- 1 can no-salt-added pinto beans
- 1 can no-salt-added kidney beans
- 1 can low-sodium crushed tomatoes
- 1 can low-sodium tomato puree
- 4 teaspoons oregano
- 4 tablespoons paprika
- 2 tablespoons garlic powder
- 1 tablespoon onion powder
- 2 teaspoons Tabasco sauce
- ¼ teaspoon salt
- 1 ½ teaspoons black pepper
- 1 teaspoon cayenne pepper
- 2 teaspoons ground cumin
- 2 teaspoons minced garlic
- 1 ½ cups chopped onions
- 1 ½ cups chopped green peppers

(May substitute Williams No Sodium Chili Seasoning for above spices)

#### **Directions**

Brown ground beef and drain fat. Brown peppers, garlic and onion. Mix all ingredients in crock pot. Let cook on low heat for 4-8 hours.

#### **Nutrition**

Sodium: 128 mg per serving Calories: 148 per serving

Carbohydrates: 36 mg per serving



## mexican seasoning

#### MAKES 8 SERVINGS

SERVING SIZE: 3/4 TEASPOON

- 2 teaspoons chili powder
- 1 ½ teaspoons paprika
- 1 ½ teaspoons ground cumin
- 1 teaspoon onion powder
- ½ teaspoon garlic powder
- ¼ teaspoon cayenne pepper

#### **Directions**

Mix spices together in small bowl. Use to season meat for tacos. Store unused portion in sealed container. One recipe makes enough for one pound of meat.

#### **Nutrition**

Sodium: 10 mg per serving Calories: 8 per serving

Carbohydrates: 2 g per serving

## soft tacos with mexican seasoning

#### **MAKES 8 SERVINGS**

SERVING SIZE: 2

- 1 recipe of Mexican Seasoning (see above)
- 1 pound ground beef, browned & drained
- ½ cup low sodium tomato sauce
- 14 six-inch corn tortillas, warm (corn tortillas have 11 mg sodium, flour tortillas have 190 mg)
- 5 tablespoons shredded cheddar cheese
- 5 tablespoons chopped onion
- 5 tablespoons sour cream
- 1 cup shredded lettuce

#### **Directions**

Make Mexican Seasoning. Brown & drain ground beef. Add seasoning mixture & low sodium tomato sauce. Heat over medium heat. Assemble soft tacos- Take 1 corn tortilla add 2 Tbsp. seasoned ground beef, 1 teaspoon cheese, 1 teaspoon onion, 1 teaspoon sour cream, & lettuce as desired.

#### **Nutrition**

Sodium: 119 mg per serving Calories: 314 per serving

Carbohydrates: 32 g per serving

## mock sausage

#### **MAKES 8 SERVINGS**

SERVING SIZE: 1 1/2 OZ COOKED PATTY

- 1 pound ground pork
- 2 teaspoons ground sage
- 2 teaspoons sugar or sugar substitute
- 1 teaspoon dried, crushed basil
- 1 ½ teaspoons black pepper
- ¼ teaspoon ground red pepper (add more for hot sausage)

#### **Directions**

Mix all ingredients together in a large bowl. Divide into 8 equal portions & form into individual patties. Cook or freeze for later use.

#### **Nutrition**

Sodium: 31 mg per serving Calories: 133 per serving Carbohydrates: 2 g per serving

## old-fashioned chicken noodle soup

#### **MAKES 6 SERVINGS**

- 6 cups Kitchen Basics (or other brand)
   Unsalted Chicken Stock (150mg
   sodium/cup)
- ½ medium onion, thinly sliced
- 1 small carrot, thin sliced
- 2 stalks celery, thin sliced
- 2 sprigs fresh thyme
- 2 sprigs flat leaf parsley
- ½ cup water
- 1/3 lb. wide egg noodles
- 2 cups shredded cooked chicken
- 1 tablespoon minced parsley leaves for garnish
- Freshly ground black pepper

#### **Directions**

Put onion, carrot, celery, thyme, parsley, stock, & water in medium pot. Bring to a simmer over medium high heat until vegetables are almost tender (about 5 min). Add noodles & cook until tender (5-8 minutes). Add chicken & warm through. Garnish with parsley.

#### **Nutrition**

Sodium: 206 mg per serving Calories: 208 per serving

Carbohydrates: 19 g per serving

## "healthified" ranch dressing

#### **MAKES 12 SERVINGS**

**SERVING SIZE: 2 TABLESPOONS** 

- ½ cup Fat Free plain yogurt
- 1/4 cup reduced fat mayonnaise
- ¾ cup buttermilk
- 1 tablespoon chopped fresh chives
- 2 teaspoons chopped fresh parsley
- ¾ teaspoon garlic powder
- 1/8 teaspoon pepper

#### **Directions**

Mix ingredients in small bowl then cover & refrigerate for 1 hour to blend flavors. May store up to 2 days in refrigerator.

#### **Nutrition**

Sodium: 85 mg per serving Calories: 30 per serving

Carbohydrates: 2 g per serving

## vinaigrette dressing

- 1 part vinegar to 3 or 4 parts oil
- (try balsamic vinegar & olive oil)
- Freshly ground black pepper to taste

#### **Directions**

Whisk in bowl until creamy. Pour over fresh tomatoes & fresh basil or use as a salad dressing – Instead of bottled Ranch!

