

## FLUID BALANCE

**FLUID BALANCE** is a state of equilibrium in which the amount of fluid consumed equals the amount lost. Fluid imbalance is a common problem in specific medical conditions.

Water retention can be a serious and dangerous problem. It causes swelling in feet and legs, weeping blisters, rashes, sores and skin infections. Fluid may also accumulate in the lungs causing shortness of breath, wheezing and inability to breathe.

Congestive heart failure (CHF) is usually the problem. This occurs when the heart weakens and is unable to pump sufficient oxygen carrying blood throughout the body, especially to the kidneys, causing excess water retention. Other conditions that may cause or exacerbate fluid retention include the following: heart attack, valvular heart disease, hypertension, excessive fluids, anemia, right heart failure, nephrotic syndrome, kidney failure and cirrhosis.

Eliminating excess water decreases shortness of breath and swelling in the lower extremities. However, eliminating too much water may cause permanent damage to the kidneys. This is why fluid balance is so important.

Three major tools used to reestablish fluid balance are salt restriction, diuretics and fluid restriction. Do not add salt to food. Salt, by osmosis, causes water retention. Diuretics like Lasix (Furosamide), Hydrochlorothiazide, Chlorothaladone, Maxide, and Spirolactone (Aldactone) cause the kidneys to excrete salt. Water is passed with salt as urine. Consuming salt *replaces the salt excreted by diuretics*. Consuming too much water also defeats the work of diuretics and dilutes sodium in the blood causing a low sodium level that can be dangerous. This is when water restriction is necessary.

If limiting dietary salt and taking diuretics does not eliminate sufficient water, or if your sodium level falls below normal, then fluid restriction is necessary. Either one of these problems may require hospitalization if not resolved. Careful fluid restriction can avoid fluid overload and lessen the need for sodium wasting diuretics. Imposing a water restriction means measuring **ALL** fluids consumed over the next 24 hours and not to exceed the desired volume. That volume is usually between 4 to 6 cups depending on your size.

### **HOW TO ESTABLISH AND MAINTAIN FLUID BALANCE**

- 60% of body weight is water and it is the major cause of daily weight fluctuation, especially if taking diuretics
- Your target weight and initial daily diuretic dose are established by your doctor

Your target weight: \_\_\_\_\_ lbs

Your initial daily diuretic dose: \_\_\_\_\_

Each morning measure and record your weight, the diuretic dose you took, and whether you imposed a fluid restriction program, based on the following instructions:

- If your morning weight is within a range of plus or minus 3 pounds of your target weight, then take your initial diuretic dose as noted
- If your morning weight is 3 pounds or more above your target weight then take 1 ½ your initial diuretic dose
- If your morning weight is 6 pounds or more above your target weight then take 2 times your initial diuretic dose and initiate fluid restriction (fluid restriction means measure ALL fluids consumed during the following 24 hours and to limit the total volume to 4 to 6 cups)
- If your morning weight is 3 pounds or less of your target weight, discontinue your diuretics and fluid restriction
- Less diuretic, rather than eliminating your fluid restriction, is better because it decreases excessive salt loss and prevents low sodium and potassium blood levels

Have your serum creatinine, sodium, and potassium levels measured at least monthly.

If you are not able to keep close to your target weight, or if you notice increased swelling or shortness of breath, call your doctor right away or go to the emergency department.

Keep a daily log of your weight, diuretics taken, and any fluid restriction.

Over time your target weight and daily diuretic dose may need to be adjusted.

Please bring this information to all appointments and review it with your doctor.

| <u><b>Date</b></u> | <u><b>Time</b></u> | <u><b>Weight</b></u> | <u><b>Diuretic</b></u> | <u><b>Fluid Restriction</b></u> |
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