Hyponatremia
(Low Serum Sodium)

Hyponatremia is when the amount of sodium (salt) in your blood is too low.

CAUSES

Many things can cause hyponatremia such as:

- Having too much water in your blood. Too much water can weaken (*dilute*) the sodium in your body. This happens in conditions such as heart, kidney or liver failure.
- Some illnesses or certain medications can cause low sodium levels even though your total body water volume does not change.
- Having too little water and sodium in your blood. This can happen when a person becomes dehydrated (i.e., sweating with exercise or a stomach flu with nausea and diarrhea). Both water and sodium are lost.

SYMPTOMS

When sodium levels are low, your cells tend to absorb the extra water and swell. The swelling happens throughout the body, but it mostly affects the brain. Severe brain swelling (*cerebral edema*) can cause death and can happen with sudden onset of hyponatremia (developing over 48 hours or less). Seizures or coma can also happen. Less severe hyponatremia can cause:

- Feeling sick to your stomach (*nausea*) and throwing up (*vomiting*).
- A hard time focusing.
- Confusion.
- Lethargy.
- Agitation.
- Headache.
- Seizures.
- Anorexia (loss of appetite).
- Muscle weakness and cramping.

DIAGNOSIS

Hyponatremia is identified by a simple blood test. Your caregiver will perform a history and physical exam to try to find the cause and type of hyponatremia. Other tests may be needed to measure the amount of sodium in your blood and urine.

TREATMENT

Treatment will depend on the cause.

- If the sodium is dangerously low, fluids are given through the vein. Medications may also be used to correct the imbalance. If medications are causing the problem, your prescriptions will need to be adjusted.
- Restriction of water or fluid intake is often needed to restore proper balance.

The speed of correcting the sodium problem is very important. If the problem is corrected too fast, then nerve damage (sometimes unchangeable) can happen.

HOME CARE INSTRUCTIONS

- Take medications as directed by your caregiver. Many medications can make hyponatremia worse. Be sure to discuss all your medications with your caregiver.
- Carefully follow any recommended diet including any fluid restriction.
- You may be asked to repeat lab tests. Be sure to follow these directions.
- Avoid alcohol and recreational drugs. Hyponatremia can happen in people with poor diets who drink large amounts of beer (*beer potomania*), and in people after use of the recreational drug MDMA or ecstasy.

SEEK MEDICAL CARE IF:

- You develop worsening nausea, tiredness (*fatigue*), headache, confusion or weakness.
- You get your original hyponatremia symptoms again.

- You have problems following the diet recommended.

SEEK IMMEDIATE MEDICAL CARE IF:

- You have shaking that you cannot control (*seizure*).
- You loose consciousness (black out).
- You have ongoing diarrhea or vomiting.

MAKE SURE YOU:

- Understand these instructions.
- Will watch your condition.
- Will get help right away if you are not doing well or get worse.

Document Released: 12/08/2003 Document Re-Released: 11/30/2009
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