Diabetes Insipidus

Diabetes insipidus (DI) is a disease where the body may not make, store or release a hormone that controls the amount of urine made by the kidneys. Diabetes insipidus is not the same disease as the diabetes where blood sugar control is a problem.

In DI, a hormone called antidiuretic hormone or ADH is the issue. It is made by the part of the brain called the hypothalamus and stored in the nearby pituitary gland. When ADH is released into the bloodstream, it tells the kidneys to make less urine.

With diabetes insipidus, either too little of ADH is made, or the kidneys are not able to use the hormone. This causes increased thirst and drinking, and large amounts of urine to be made. Frequent urination can lead to dehydration, interrupted sleep and bedwetting.

Diabetes insipidus may be caused by:

- Damage to the pituitary gland or hypothalamus from head injury, tumors, surgery, infections or bleeding
- Kidney diseases
- Certain medicines such as lithium and tetracycline
- Too much calcium in the body called hypercalcemia
- An enzyme in the placenta that destroys ADH in the mother during pregnancy

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Learn more about your health care.
Signs

You may drink a lot of water, more than your body needs. You may have a constant urge to drink or crave ice. From the large quantities of water consumed, large amounts of urine are made.

When thirst and urine are out of balance, it can be serious. **Call your doctor if you have these signs:**

- Dry skin that gets worse
- Headaches
- Fast heart beat
- Tired and feel weak
- Fever
- Muscle pain

Testing

Your doctor will check you to see what is causing your problem. Several tests may be done to check for DI:

- A urine test to check the concentration and amount of urine.
- A blood test to check ADH.
- A fluid deprivation test to measure changes in body weight, urine output, and urine composition when fluid is withheld. Your body weight and urine and blood samples will be checked during the test.
- A magnetic resonance imaging (MRI) of the brain to check for damage.

Treatment

There are treatments for DI, such as:

- Taking medicines to slow the amount of urine being made.
- Drinking enough fluids to equal the amount of urine being made to prevent dehydration.

For your safety, your doctor may suggest that you wear a medical alert necklace or bracelet.

Talk to your doctor or others on your health care team if you have questions. You may request more written information from the Library for Health Information at (614) 293-3707 or email: health-info@osu.edu.