

## Hormones and Glands

### Thyroid

I wanted to speak about the thyroid{ XE "thyroid" } because of its important role in growth. Many parents are concerned about their child's or adolescent's growth rate and development. It is one of my primary concerns when I review your child's growth chart and mental development.

The thyroid gland is located at the base of the neck and cradles the wind-pipe surrounding it. Its role in the body's chemical factory concerns important functions involving the rate which are body uses the basic building blocks of growth and how we control them. I do not want to go into detail how the thyroid functions but emphasize it has an important role. Because of this important role, how much or how little of the chemicals produced from the thyroid gland can influence how the child appears or the symptoms we see.

The mother's thyroid gland and how well it functions can influence the growth of the developing baby. The newborn screening that is mandatory for every baby born includes a test for thyroid function. When the infant's thyroid does not produce enough hormone, delayed mental and physical growth are delayed. We can treat the physical growth effectively, but in some cases the mental development is irreversibly damaged. It is this reason Pediatricians watch growth (mental and physical) so closely. The earlier I detect a problem and repair it, the better the chances for optimal development. In infants, poor muscle tone, slow growth, slow developmental maturation and other signs can indicate inadequate production of thyroid hormone. This can be replaced with medications. In older children and adolescents decreased energy, worsening grades, depression and other signs of decreased metabolism can indicate thyroid disorders. Weight gain alone is not a good indicator of slowed thyroid function. This is a common misconception by many parents and prompts them to request thyroid testing. In almost all cases this weight gain is due to eating more calories than necessary.

For some adolescents the thyroid may produce too much hormone causing weight loss, nervousness increased appetite. One type of thyroid found in the infant, child or adolescent can produce signs like those you noticed in Mrs. Bush (a past President's wife) with the look of starring with bulging eyes{ XE "bulging eyes" }. This is treated by blocking the thyroid from releasing the hormone or destroying the gland itself and providing the hormone with medications.

The point I want to leave is that the thyroid provides an important role in the normal function of the body. Any sign of problems of a poorly functioning thyroid gland are watched and if necessary evaluated and treated.

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### Premenstrual syndrome or PMS

This a group of feelings or physical changes that some adolescents and older women get about one week prior to their menses. You might notice any combination of these symptoms : increased acne, feeling tired, feeling bloated, increased appetite, weight gain, breast soreness, mood swings, headaches, constipation, and feeling irritable.

Suggestions for the relief of PMS{ XE "PMS" } symptoms. Please consider these ideas if you believe your adolescents symptoms sound like PMS{ XE "premenstrual syndrome" } syndrome. Keep track of the time of the month and the cycle of the periods. It will be easier to make sense of the strange feelings if you are aware it might be PMS causing the changes you are experiencing.

The next few suggestions are general and apply to many situations, but especially to PMS. Get enough rest but its important to establish a regular routine of exercise. Extra caffeine can cause a problem, plus dramatic changes in diet with extra sugar can aggravate the symptoms. Try to reduce stress at times when it is more difficult to deal with it.

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**Hepatitis**

This disease strikes terror in families because parents fear the worst outcome or have many misconceptions. Hepatitis is an inflammation of the liver. Most cases are not recognized because it is generally mild and symptoms are not severe. Its symptoms are nonspecific like fever, headache, general achiness, loss of appetite or an itchy rash. After a few days, you will notice more nausea and vomiting, stomach ache and in some cases jaundice (yellowness of the whites of the eyes and skin). Urine will be dark and stools will change to a tan or white color. The area of skin over the liver can be quite tender from the swelling of the liver.

Viruses cause inflammation of the liver including the virus of mononucleosis ( Ebstein-Barr virus{ XE "Ebstein-Barr virus" } ). Two recognized forms of hepatitis are infectious or "A" type and Serum or "B" type. Incubation period can vary from 1 month for infectious hepatitis to 6 months for serum hepatitis. Infectious hepatitis is spread from one person to another from intimate contact or from infected water or food. Serum hepatitis is spread by contact with contaminated blood which can occur when infected needles are used or shared.

There is no cure for the viral infection once it develops in the body. Treatment focuses on meeting the nutritional needs of the infected child. Foods should be lower in fats and contain only mild to moderate amounts of proteins. Carbohydrates are easier to digest than fats or proteins, but all food types can be eaten.

If a member of the family is known to have infectious hepatitis, all family members used to receive immune globulin{ XE "immune globulin" } to prevent or to minimize the severity of hepatitis. This is no longer available or advised. Once the disease is diagnosed, immune globulin will not stop the infected person's disease. Some children and adults can have damage to the liver or a chronic hepatitis. It is important to prevent cases of hepatitis, whenever possible. Fortunately, there will be complete recovery from infectious hepatitis in more than 90% of children.

In the current recommendations for vaccines children right after birth may receive the first of three doses of hepatitis B vaccine. At age two years the hepatitis A vaccine can be given and the second of two doses can be completed in six months. Other types of hepatitis vaccines like C are not available at the time of this article (May 9,2005)