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******One cause of kidney stones can be corrected.

DALLAS--For many people, kidney stones are a painful, serious problem. At least one cause of kidney stones--hyperparathyroidism--is now easily detected and if necessary, treated surgically. Dr. Neil Breslau, assistant professor of internal medicine at The University of Texas Health Science Center at Dallas suggests persons who have had kidney stones be rechecked with a complete metabolic work-up, including tests for overactive parathyroid glands.

"It used to be that persons would be diagnosed as having hyperparathyroidism only after a very long time. By then they would already have kidney stones or other serious complications. Now we have sophisticated chemical screening tests which measure many constituents in the blood at one time. In this case we look for an excess of blood calcium."

Most kidney stones are made of calcium and the body's principal mechanism for the regulation of calcium is a group of four pea-sized glands known as the parathyroid glands. Located in the neck just behind the better-known thyroid gland, the parathyroids monitor and regulate calcium increases and decreases in the blood. But when the tiny parathyroids become exuberant in their function, hyperparathyroidism develops and with it the possibility of mild to serious complications.

Hyperparathyroidism is the result of one or more enlarged (therefore overfunctioning) parathyroid glands. Since the glands' function is to release parathyroid hormone (PTH) in order to regulate blood calcium, an overactive gland will certainly cause more calcium to enter the blood stream.

Not only are calcium kidney stones a threat, but also the excessive removal of calcium from bone triggered by the increased PTH. If too much calcium is drawn from the bone, it weakens and easily breaks.

Unlike many conditions that can be treated by drugs or other therapy, hyperparathyroidism is usually corrected by removal of the hyperactive gland(s). The operation is delicate and must be performed by a specialist, for the glands are small and occasionally hard to find. Dr. William Snyder, associate professor of surgery, explains:

"The four parathyroids should be, and usually are located just behind the thyroid gland in the neck. Sometimes, however, they are positioned in an unlikely spot, perhaps lower or higher in that region, necessitating a delicate exploration."

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Extreme care must be taken to preserve a sufficient amount of the gland. Without the important monitoring and regulation of blood calcium, the condition knows as hypo-parathyroidism (too little PTH) will result, bringing its own symptoms and problems. The surgeon must know exactly how much gland to remove.

Another curious symptom of excessive calcium in the blood is the feeling of ennui or depression. The exact reasons for this condition are not understood, but hyperparathyroid patients often have a poor or apathetic outlook on life.

"Beyond eliminating the recurrence of kidney stones and bone fracture--which in itself would make a patient happy--lowering of the blood calcium seems to bring on a new interest in life," notes Breslau. "Fatigue is lessened and the person simply feels better. This is not always the case, but it occurs often enough that I think it's a real phenomenon."

Breslau suggests that patients who have had kidney stones be rechecked for over-active parathyroid glands as part of a complete metabolic work-up. Many of the screening tests are new, so that the diagnosis of hyperparathyroidism may have been missed in the past.

"Usually the doctor's main concern with one of these (kidney stone) patients is treating the symptom. Stones are very painful and both doctor and patient are anxious to deal with the problem at hand. But in many cases, further investigation, especially with some of the new technology, may disclose a correctible cause such as hyperparathyroidism."

What about the child who has to down another glass of milk to get more cookies, or everyone else who likes milk, cheese or ice cream? Such foodstuffs are high in calcium. Dr. Breslau responds:

"Normally a person does not have to restrict the intake of calcium, with the general caution that an excess of anything is not good. When the parathyroid glands are functioning correctly, the body protects itself automatically from too much or too little calcium. But if something goes awry, we know where to look and what to do about it."

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