

Shalamar Hospital is striving to provide our patients quality health care, at lowest possible costs. Our hospital is continually active in pioneering new treatments and therapies to improve the lives of people in our community.



Endocrinologist, or doctor. Your calcium may need to be increased or cut out for a while, but you must never adjust your alfacalcidol or calcitriol doses on your own.

LOW CALCIUM (HYPOCALCEMIA)

Early symptoms of low calcium levels include varying degrees of "inner shaking," dizziness, "brain fog," blurred vision, irritability, sensitivity to sounds, diarrhea, anxiety, extreme weakness, chills, and headache. "Tetany," which is involuntary muscle contraction, may progress to seizures.

Symptoms can arise through or be made worse by anxiety and over-breathing, so it is important to remain calm. Most mild symptoms usually pass, but if they do not, try drinking some milk or calcium-fortified orange juice or eating some food. If symptoms persist after an hour, take an extra calcium tablet, stay calm, and keep warm. Calcium tablets take about 20 minutes to work.

Sometimes you may just need to take some of your day's dose a little earlier than usual without taking more. If this keeps happening, you should get a blood test as it might mean your medication needs adjusting. If you feel severely unwell or experience a sudden onset of severe symptoms, take extra medication and call your doctor. You need to take sufficient extra medication to prevent a crisis. An emergency injection of calcium may be needed if your calcium levels have dropped very low to prevent spasms from developing.

HIGH CALCIUM (HYPERCALCEMIA)

Warning signs of high calcium levels include thirst, frequent urination, severe headache and nausea, stomach ache, depressed mood, constipation, extreme fatigue, heavy and painful limbs, and confusion. None of these symptoms are specific and may be due to conditions other than raised calcium.

ENDOCRINE SURGERY CLINIC

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An anatomical illustration of the human thyroid gland, showing its characteristic butterfly shape. The gland is rendered in a semi-transparent, light blue color, revealing internal structures. Several yellowish, oval-shaped nodules are scattered throughout the gland, representing thyroid nodules. The background is a dark, textured grey with a pattern of small, light blue dots.

Hypoparathyroidism

WHAT IS HYPOPARATHYROIDISM?

Hypoparathyroidism, also referred to as Hypopara or HPTH, is a condition that occurs rarely and is characterized by inadequate levels of parathyroid hormone resulting in low calcium levels. The parathyroid glands, four small glands situated behind the thyroid gland in the neck, are responsible for producing parathyroid hormone (PTH), which plays a vital role in regulating calcium levels. Calcium is essential for proper functioning of various cells, muscles, nerves, and bones.

ANATOMY OF THE THYROID AND PARATHYROID GLANDS

Picture

Hypoparathyroidism is typically caused by the destruction of the parathyroid glands during neck surgery, damage by the immune system, or it may be present at birth as a congenital condition. In some cases, the cause of hypoparathyroidism is unknown or idiopathic.

HOW IS THE CONDITION DIAGNOSED?

The initial diagnosis is usually made by a doctor, who will assess symptoms and perform a simple blood test to measure calcium levels. If the calcium levels are low, the doctor will refer the patient to an endocrinologist. Diagnosis is done through blood tests that show low parathyroid hormone (PTH) levels and low calcium levels. Kidney function, phosphate and magnesium levels, and vitamin D levels may also be checked. In cases where hypoparathyroidism is a complication of surgery, symptoms may develop within a few hours or days after surgery, while diagnosis of a rare genetic condition may take some time.

TREATMENT OF HYPOPARATHYROIDISM:

Mild hypoparathyroidism can be treated with calcium supplements alone. However, most patients require active forms of vitamin D, such as calcitriol or alfacalcidol, in addition to calcium supplements. Thyroid hormone replacement therapy is necessary for those who have undergone thyroid gland removal. The goal of treatment is to alleviate symptoms rather than to restore normal calcium levels in the blood. Magnesium may need to be corrected in postsurgical hypoparathyroidism if the levels are low. Daily treatment is usually essential and lifelong, but post-surgical hypoparathyroidism may resolve over time. The calcium levels in the blood must be monitored to determine the best treatment plan.

TREATMENT AND MEDICATION MANAGEMENT FOR HYPOPARATHYROIDISM

Target Range for Adjusted Calcium Levels:

The target range for adjusted calcium levels in the treatment of hypoparathyroidism is approximately between 2.0-2.25mmol/L. However, the range may vary depending on the patient's symptoms. To achieve this range, an appropriate dose of alfacalcidol or calcitriol is prescribed, which allows most of the calcium to be obtained from the diet, reducing the need for excessive calcium supplements. The doses are typically divided and taken throughout the day. It may take a few months to achieve the correct balance, and medication requirements

may change over time, which can be recognized by changes in calcium levels and accompanying symptoms. Patients and their doctors must learn to recognize the individual's particular symptoms to adjust medication accordingly, even when the test results are in the normal range.

TAKING TABLETS:

It is essential to carry spare medication, maintain a month's supply in reserve, and have an extra supply when on holiday. While travelling by plane, the medication must be carried in hand luggage with prescription labels visible.

FACTORS AFFECTING CALCIUM LEVELS:

Several factors can affect calcium levels, including diet, dehydration, illness, infection, fever, sweating, vomiting, diarrhea, surgery, stress, smoking, menstrual periods, menopause, exercise, and various medications. It is better to obtain calcium from food rather than supplements, although certain foods, such as whole meal bread, spinach, tomatoes, alcohol, and fizzy drinks, can deplete calcium levels. Drinking eight glasses of water daily can help prevent dehydration and maintain calcium levels.

WHAT KIND OF MEDICAL SUPPORT IS NECESSARY FOR LIVING WITH HYPOPARATHYROIDISM?

Endocrinologist: Initially, outpatient department visits may be frequent, occurring about three times a month. Afterward, visits may occur every 6-12 months.

DOCTOR: Your doctor will continue to provide advice between visits and issue repeat prescriptions. You are entitled to receive your medication free of prescription charges, and your doctor needs to endorse your entitlement.

LIVING WITH HYPOPARATHYROIDISM

Many people with Hypoparathyroidism can expect to lead normal lives with a normal lifespan. For those with permanent but mild Hypoparathyroidism, temporary symptoms may occur from time to time. However, severe Hypoparathyroidism is rare, but you may experience constantly unstable calcium levels (or brittle Hypoparathyroidism) and a range of challenging symptoms. In this case, you should be referred to a specialist in calcium metabolism.

You may experience episodes of unusual fatigue or muscle weakness. At times, you will need to allow your body to catch up with extra rest. Women with Hypoparathyroidism can have a healthy pregnancy and normal childbirth, but calcium, vitamin D, and thyroid hormone doses may need adjusting throughout pregnancy.

During strenuous physical exercise, you may need extra medication. In rare cases of severe Hypoparathyroidism, exercise may be difficult due to bone pain and muscle weakness. Try to be gently active.

WHAT TO DO IN A CRISIS

A "crisis" can arise from very low or very high calcium levels. If this occurs, seek help from your Endocrine Specialist Nurse,