

Factors and Food Habits that Lead to Kidney Stone Formation in Humans

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DESCRIPTION

Nephrolithiasis is a frequent medical disorder that is influenced by a variety of external variables, including food. Because nutritional habits play a role in the development and recurrence of kidney stone disease, dietary modification has become an important technique in the medical management of nephrolithiasis. Dietary guidance tries to lower the majority of lithogenic risk factors, primarily calcium oxalate, calcium phosphate, and uric acid super saturation. Current guidelines advocate increasing fluid intake, maintaining a balanced calcium intake, minimizing sodium and animal protein intake, and increasing fruit and fiber intake. In this review, we looked at how each dietary element affected the incidence and recurrence rate of nephrolithiasis.

Many of the highlighted factors, such as those involved in the etiology of renal stones, are regulated by food. In fact, dietary exposure is likely one of the most important factors contributing to the increased prevalence of nephrolithiasis in the general population. In addition, genetic predisposition should be examined. More than 30 Mendelian genetic variations are known to cause kidney stones, and polygenic involvement in idiopathic stone formers is even more common. Furthermore, stone disease is linked to various comorbidities such as arterial hypertension, diabetes, obesity, metabolic syndrome, and an increased risk of developing chronic kidney disease. Furthermore, patients with urolithiasis are more likely to develop multi-organ problems such as metabolic bone disease, cardiovascular events, and vascular calcifications.

The following actions should be taken by the people who want to prevent getting kidney stones for the first time or lower their chance of recurrence if they currently have them: drink plenty of water, limit their intake of salt and animal protein, avoid foods high in oxalates, and get enough calcium. Because kidney stones can occur as a result of an accumulation of multiple distinct minerals in the body, there is no single diet plan for all types of kidney stones. However, for persons with kidney stones, many dietitians and specialists who specialize in kidney problems, known as nephrologists, prescribe the Dietary Approaches to Stop Hypertension (DASH) diet.

A sharp, cramping pain in the back and side is a common symptom of kidney stones. This sensation frequently spreads to the lower abdomen or groin. Often, the agony comes on suddenly and in waves. As the body works to remove the stone, it might come and go. Other symptoms of a kidney stone include: an intense want to urinate, urinating more frequently or experiencing a burning sensation while urinating, Urine that is dark or scarlet as a result of blood. Sometimes urine contains Only minute amounts of red blood cells, which are undetectable to the human eye.

Diagnosis includes, "Silent" kidney stones, those that cause no symptoms, are frequently discovered during a health exam when an X-ray is conducted. Some patients have their stones diagnosed only when they are in excruciating pain as the stone is passing" and. An ultrasound or a CT scan may be used to diagnose a stone if a person has blood in their urine (hematuria) or abrupt stomach or side pain. These imaging tests inform the doctor about the size and location of the stone. The emergency room regularly uses a CT scan when a stone is found. It is used as a diagnostic tool since it is efficient and precise.

Treatment include, drinking 2 to 3 quarts (1.8-3.6 liters) of water per day will keep the urine dilute and may avoid the formation of stones. Unless otherwise directed by the doctor, drink enough liquids, preferably primarily water, to create clear or nearly clear urine.

Pain killers

A small stone could be difficult to pass. The doctor may recommend pain medicines such as ibuprofen or naproxen sodium to ease mild pain.

Medical treatment

The doctor may prescribe medication to help the patient to pass a kidney stone. An alpha blocker is a sort of drug that relaxes the muscles in the ureter, allowing the patient to pass the kidney stone more rapidly and with less pain. Tamsulosin and the medication combination dutasteride and tamsulosin are examples of alpha blockers.

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Received: 28-Jul-2023, Manuscript No. IME-23-26743; **Editor assigned:** 02-Aug-2023, PreQC No IME-23-26743 (PQ); **Reviewed:** 16-Aug-2023, QC No. IME-23-26743; **Revised:** 23-Aug-2023, Manuscript No. IME-23-26743 (R); **Published:** 30-Aug-2023, DOI: 10.35248/2165-8048.23.13.422

Citation: Ozal C (2023) Factors and Food Habits that Lead to Kidney Stone Formation in Humans. Intern Med. 13:422.

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