

# Kidney Stone

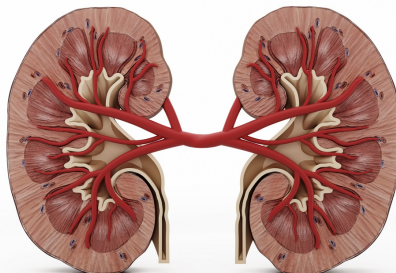
## Fact Sheet

**What are kidney stones?** Also called renal calculi, nephrolithiasis or urolithiasis. They are hard deposits of minerals and salts that form inside of the kidneys?

**What is the cause?** There is rarely a clear-cut cause of kidney stones. However, they seem to occur when the urine is concentrated. Minerals then can crystallize. Not drinking enough water to dilute certain substances or not having a substance that prevents crystals from forming may be causes.

### Types of stones?

- Calcium stones (most common). Made from calcium oxalate. Oxalates are made by the liver from foods high in oxalate. These stones can also be caused from high doses of Vitamin D, gastrointestinal surgery and other metabolic disorders including chronic kidney disease which forms calcium phosphate stones.
- Struvite stones. These stones are formed in response to a urinary tract infection.
- Uric acid stones. These stones usually from from excessive loss of fluid due to chronic diarrhea or malabsorption, high protein diet, diabetes, metabolic syndrome or family history.
- Cystine stones. A specific genetic disorder, cystinuria, causes these stones from the kidneys excreting too much of an amino acid.



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### Risk Factors:

- Family or personal history
- Dehydration
- Diets high in protein, sugar or salt
- Obesity (BMI >30)
- Gastric bypass surgery, inflammatory bowel disease, or chronic diarrhea
- Renal tubular acidosis, cystinuria, hyperparathyroidism and repeated urinary tract infections
- Certain supplements especially calcium-based supplements, Vitamin D and Vitamin C.
- Certain medications especially those used to treat migraines and depression.

