

# Oxalfree™

Oxalobacter Formigenes 2 Billion Spores, Bifidobacterium Lactis 1 Billion Spores,  
Lactobacillus Acidophilus 1 Billion Spores, Bacillus Coagulans 1 Billion Spores Capsules

Freedom From Oxalate Stones

## Product Description:

Each Capsule contains Oxalobacter Formigenes 2 billion Spores, Bifidobacterium Lactis 1 billion Spores, Lactobacillus Acidophilus 1 billion Spores, Bacillus Coagulans 1 billion Spores.

## General Information:

Most kidney stones are composed primarily of calcium oxalate. Oxalobacter formigenes is a Gram negative, anaerobic bacterium that metabolizes oxalate in the intestinal tract and is present in a large proportion of the normal adult population. The absence of *O. formigenes* could lead to increased colonic absorption of oxalate, and the subsequent increase in urinary oxalate could favour the development of stones. Up to 80% of kidney stones are predominantly composed of calcium oxalate (CaOx). Urinary oxalate is a major risk factor for CaOx stone formation.

**Primary hyperoxaluria (PH)** is a rare and serious condition that mainly affects the kidneys, bladder, or urinary tract. **Primary** refers to being born with the condition. **Hyperoxaluria** means having high levels of oxalates in the urine.

- In Primary Hyperoxaluria 1, there is a variant (change) in **AGXT (alanine-glyoxylate aminotransferase) gene**. This gene provides instructions for making a substance that helps break down waste products like oxalate in liver. People living with PH1 either make less of this important substance or don't make it at all. This causes high levels of oxalate in the blood and urine, leading to kidney stones, kidney failure, and other complications.

Primary Hyperoxaluria 1 is the most common type – around 80% of people with Primary Hyperoxaluria have Primary Hyperoxaluria type 1.

- In Primary Hyperoxaluria 2, there is a variant (change) **GRHPR (glyoxylate/hydroxypyruvate reductase) gene**. Primary Hyperoxaluria 2 tends to be less aggressive than Primary Hyperoxaluria 1. People living with Primary Hyperoxaluria 2 are still at risk for kidney failure, but the disease process is usually much slower than for people living with Primary Hyperoxaluria 1. Around 10% of people living with PH have PH2.

- In Primary Hyperoxaluria 3, there is a variant (change) in *HOGA1* (4-hydroxy-2-oxoglutarate aldolase 1) gene. Primary Hyperoxaluria 3 is the least severe type of PH. People living with Primary Hyperoxaluria 3 usually experience repeat kidney stones but seem to have a very low risk of kidney failure. Around 10% of people living with Primary Hyperoxaluria have Primary Hyperoxaluria 3.

### **Indication:**

For Management & Prevention of Kidney Stones

### **Dosage and Administration:**

1 Capsule BD

### **Mechanism of Action:**

Urinary oxalate is predominantly derived from endogenous production of oxalate from ingested or metabolically generated precursors and from the diet.

***Oxalobacter formigenes* are gram-negative anaerobes that inhabit the intestinal tract of humans and other mammals. *O. formigenes* is unique in that it utilizes oxalate as its sole carbon and energy source, which it metabolizes into formate and CO<sub>2</sub>.**