



# KIDNEY

# STONES

MILTON  
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## In the emergency room where I work,

patients presenting with kidney stones are a common sight, usually several of them every shift. You can recognize them from the other side of the ER. The crampy, colicky pain is one of the most sharp, severe, unbearable pains imaginable. Women tell me it is way worse than labor pains. They are moving around trying every possible position to relieve the pain, and no position will relieve it. Typically they are standing beside the gurney doubled over in pain rather than lying on it when I walk into the room. Severe nausea and vomiting are frequently part of the picture because of the intense nature of the pain.

They can tell me exactly what they were doing at the very moment when it started. Kidney stone pain goes from zero to 100% instantly (as the ureter goes into spasm around the sharp rough edges of the stone). They awake suddenly from

As you look closely at the surface of a kidney stone with a microscope you can see why they cause such severe pain as they pass through the urinary tract.

sleep in the middle of the night, or they can relate exactly what scene on TV they were watching when it struck them, or they were driving at such and such a place and suddenly it hit them.

Immediately on arrival, the ER nurse starts an IV and then along with a bolus of normal saline I will order medications for pain and spasm and nausea and vomiting. Soon the pain and vomiting will be relieved and then we can proceed with the work up. The urine may show some blood in it and then a CT scan will show how big the stone is, where it is and if it is causing any obstruction.

Small stones will probably pass within a few hours to a day or two. Larger stones may require lithotripsy or other urological procedures to break up or remove them, and they can result in complications such as pyelonephritis or even renal failure.

## Major Increase In Stones

Today, kidney stones are so common that one in 11 people will have one, a dramatic increase from just 20 years ago when only half as many people got kidney stones. The incidence of kidney stones has been increasing gradu-

ally since the end of World War II. The question that must be asked is, what is causing this increase that seems to be accelerating? Many of those forming kidney stones will go on to form multiple stones over the coming months and years.

## Animal Protein the Major Cause

Researchers are finding that the increasing numbers of kidney stones are directly related to the increasing amount of animal protein in the diet. Indeed the **only risk factor** consistently to be associated with kidney stone formation in all demographic groups is **increased intake of animal protein**. To evaluate if this was a cause and effect relationship, they studied the effects of adding increased animal protein to the diet.



They tried adding a can of tuna to the diet each day to see its effect on stone formation risk factors. The amount of calcium in the urine as well as urinary oxalate levels and uric acid levels all dramatically increased. The probability of stone formation increased over 250% on the days they ate the extra can of tuna.

And these people were still only averaging around 80g of protein per day with this extra can of tuna added. Many Americans are eating 100g to 200g per day, primarily animal protein. The higher the intake of animal protein, the more likely they were to form multi-

ple stones. So we see the reason behind why I see so many patients suffering such severe pain from kidney stones in my ER every day. It is the almost universal increase in meat consumption.

Further studies were done recently to see if it was primarily beef or chicken or fish that were associated with increased kidney stone formation. And the results: All of these forms of animal protein caused stone formation.



substances being removed are calcium, oxalate and uric acid, and there is less water intake, the more concentrated will be the solution of these substances. And the higher the concentration, the more likely they are to precipitate out into crystals and form into stones. The more water, the more diluted the concentration of these stone will be in forming substances and the less likely they will be to make a stone.

## A Plant-based Diet

Over a century ago, God sent a health message to His remnant people through His messenger. We have been instructed to completely abstain from flesh foods, that the flesh of animals is unfit for human consumption. Now over a century later as meat consumption in the U.S. continues to increase, we see yet another reason for the wisdom of this counsel. Most cases of kidney stones could be avoided entirely by obeying this instruction.

As we move into the last years of this earth's history, and disease and misery and pain are continually increasing, we can share God's healing love to those around us and spare them from so many of the painful afflictions that are a curse to the inhabitants of this rebellious world. Obedience to God's original plan is still the best medicine for this world.



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## What About Vegetable Protein?

Interestingly, populations with a relatively high intake of vegetable protein compared to animal protein have a very low incidence of kidney stones. Those on a low animal protein diet have very low levels of urinary calcium, oxalate and uric acid. This may explain why we rarely find kidney stones in primarily vegetarian societies.

## Water

Water is essential to the good health of every organ of the body and the kidneys are no exception. The kidneys filter out waste products from the blood into the urine, and a good supply of water is essential to this process. When the