



For Kidney Stone Warriors

Preface

Inspired by our community of *Kidney Stone Warriors*, this *Survivor's Guide* is a curation of facts and tips for managing kidney stones.

Proudly brought to you by *Worst Pain Ever*, the world's largest kidney stone patient community and powered by Dornier MedTech, a company that engineers urological solutions.

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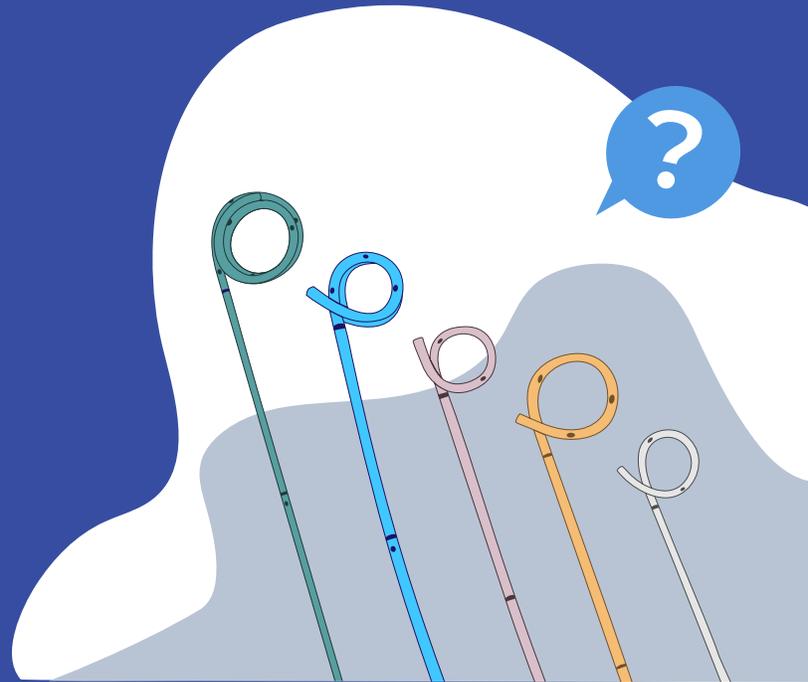
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Stent Pain Explained!

URETERAL STENTS ARE...

Thin, flexible tubes that are inserted into your ureter, which helps to drain urine from your kidneys. They hold open the ureter, easing blockage caused by kidney stones¹ or swelling after certain kidney stone surgeries², allowing urine to flow smoothly from the kidneys to the bladder.

They're especially common for patients who undergo ureteroscopy (URS), during which a small scope is inserted into the bladder and kidneys to remove the stone. After your URS procedure, your ureter may swell², which is why it may sometimes be necessary to have a stent – to ensure you're still able to pee properly when you get home!



STENTS CAN CAUSE³ ...

Blood in your urine

**Bladder irritation
or cramps**

Frequent urination

**Severe pain that
doesn't always ease
up with medications**

1. *Ureteral Stents – What you need to know.* Urology San Antonio. Retrieved 29 August 2022, from <https://www.urologysanantonio.com/ureteral-stents#:~:text=What%20is%20a%20ureteral%20stent,the%20treatment%20of%20kidney%20stones>.

2. Ordonez, M., Hwang, E., Borofsky, M., Bakker, C., Gandhi, S., & Dahm, P. (2019). *Ureteral stent versus no ureteral stent for ureteroscopy in the management of renal and ureteral calculi.* Cochrane Database Of Systematic Reviews, 2019(2). <https://doi.org/10.1002/14651858.cd012703.pub2>

3. *Ureteral Stents: What Are They, Procedure & Recovery.* Cleveland Clinic. Retrieved 29 August 2022, from <https://my.clevelandclinic.org/health/treatments/21795-ureteral-stents>.

LIFE WITH STENTS

Not everyone will experience stent pain, but if you do, you're definitely not alone! In our Global Urology Survey 2022⁴, 65% of patients identified pain and discomfort as the worst part of having stents.

Dr. Marshall L. Stoller, who specializes in urinary stone disease, shares his top tips on managing daily life with a stent.



Dr. Marshall L. Stoller

WHAT CAN I EXPECT IN MY FIRST 2 WEEKS WITH A STENT IN?



No need to put your favorite activities on hold!

“Many patients think having a stent in means you can't go swimming, ride a bike, or go for a run – this isn't true! You can typically go about your normal day with a stent in. You are safe to go flying and you're good to go on a trip.

However, if you're doing any strenuous physical activities such as vigorous workouts or have a job that is physically demanding, the stent may rub against your bladder walls, causing some blood in the urine. This is nothing to be alarmed about! Remember that even a small amount of blood in a big amount of urine can make it look quite red. If an activity is making your symptoms worse, stop that activity and drink more fluids.”

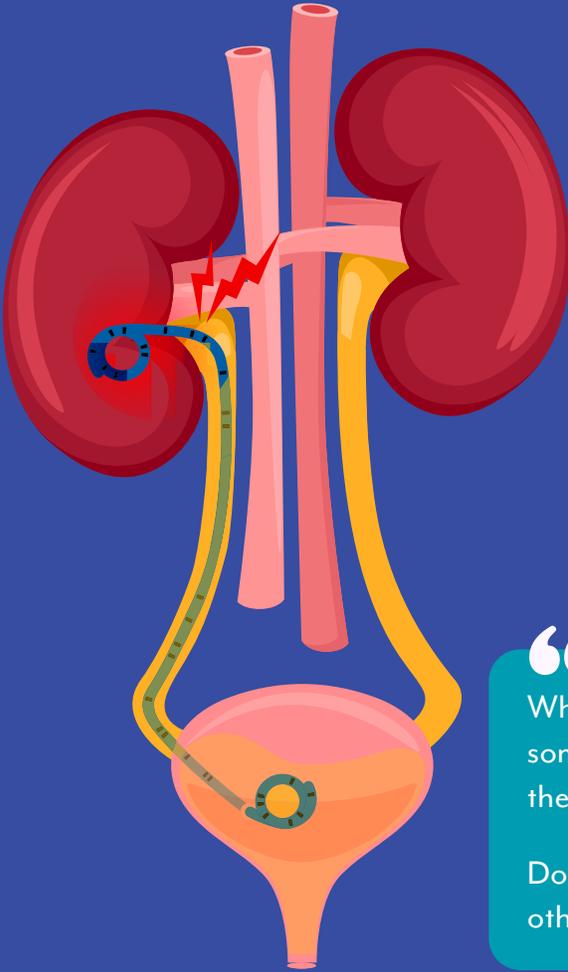
But one important thing to note is that...

Stents can make you need to pee more frequently.

“As stents keep your ureter open, it's common to feel the need to urinate more frequently. On top of that, you may experience some pain when peeing.”

WHY DOES PEEING WITH STENTS HURT SO MUCH?

Urine reflux



“

One possible explanation could be reflux, otherwise known as retrograde flow of the urine from the bladder to the kidney. When you pee, your bladder contracts to release the urine into the toilet. While this is happening, some of the urine may actually flow back up to the kidney, causing some pain.

After peeing, some of the urine that was refluxed into the kidney may come back down, and you may find yourself needing to pee again!

”

How to pee for maximum comfort

“

When you pee, rather than emptying your bladder completely, leave some of the urine in the bladder, so that your stent isn't rubbing against the walls of the bladder.

Doing so will help to decrease the frequency and urgency that you may otherwise experience if your bladder is completely empty.

”

DOES THIS MEAN I CAN HAVE SEX WITH A STENT IN?

“

In general, you may resume sexual activity with a stent in – unless you have a stent with a string!

Some stents have a string at the end to ease retrieval. The string may get dislodged during sex, so maybe hold off the sexual activity until your stent is removed. For women, be careful how you wipe afterwards. Like a tampon string, it may also get dislodged if you wipe too aggressively.

”

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Everything You Need to Know About Passing a Kidney Stone

HOW CAN I IDENTIFY THE SYMPTOMS?

If you've never passed a stone before, it's possible to misinterpret your stone symptoms for other issues⁵ such as appendicitis. We've even heard of patients who thought they were having a heart attack!

Here are three helpful tips to know if you have a kidney stone.

B



Blood in the urine

Your urine will look pink, red or brown⁶

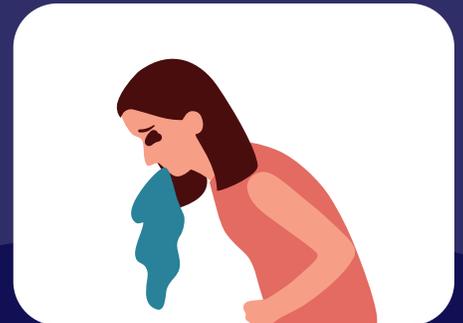
A



Pain in the lower back

When a kidney stone becomes lodged in your ureter, it may block the flow of urine. This can cause swelling, spasms and extreme pain.

N



Nausea and vomiting⁷

The pain may also cause you to feel nauseous.

5. *What can be mistaken for kidney stones?* | UC Irvine Health | Department of Urology. UCI Urology. Retrieved 29 August 2022, from https://urology.uci.edu/what_can_be_mistaken_for_kidney_stones.shtml.

6. *Kidney stones.* Mayo Clinic. Retrieved 29 August 2022, from <https://www.mayoclinic.org/diseases-conditions/kidney-stones/symptoms-causes/syc-20355755#:~:text=Kidney%20stones%20form%20in%20your,and%20blood%20in%20your%20urine>.

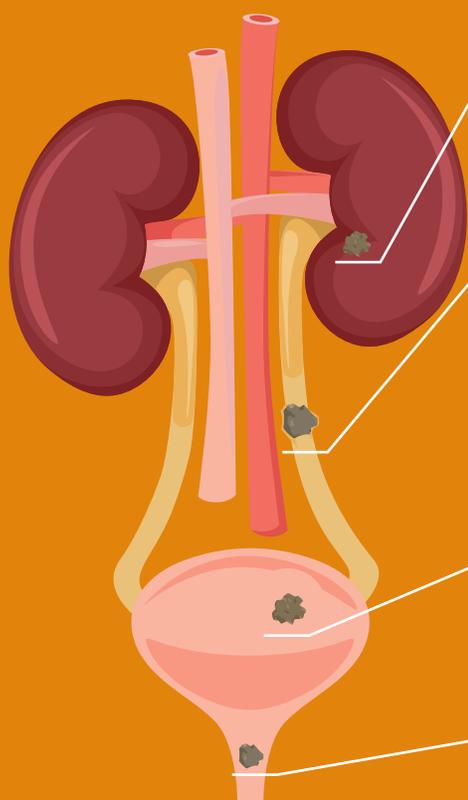
7. *Symptoms & Causes of Kidney Stones.* National Institute of Diabetes and Digestive and Kidney Diseases. Retrieved 29 August 2022, from <https://www.niddk.nih.gov/health-information/urologic-diseases/kidney-stones/symptoms-causes>.

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WHAT HAPPENS WHEN I NEED TO PASS A STONE NATURALLY?

Sometimes, if your stone is small enough or located closer to your bladder, you may be able to pass it on your own! You may need nothing more than medication, painkillers and loads of water.

THE 4 STAGES



STAGE 1

Your kidney attempts to push the stone out, which can cause some discomfort in the pelvis. As the stone leaves the kidney, the ureter may go into spasms. The pain can come in waves.

STAGE 2

The stone begins its journey to your bladder, through the ureters, which are tubes that connect the kidney to the bladder. Larger stones may get stuck, which can worsen your pain! When the stone is lodged at the upper end of the ureter, you may feel pain in your upper flank. As it travels downwards, you may even feel pain as low as the labia or testicle⁸.

STAGE 3

Once in the bladder, the pain often subsides. However, you may feel the need to urinate more frequently⁸.

STAGE 4

When you urinate, the stone is pushed out of the bladder and your ordeal is over!

If your stone is too large or becomes lodged in your ureter, it can cause excruciating pain, urinary infections and/or other complications. In such instances, you may have to undergo a kidney stone removal procedure.

Seek medical attention immediately if you're in unbearable pain.

WHAT FACTORS AFFECT MY CHANCES OF PASSING A STONE NATURALLY?

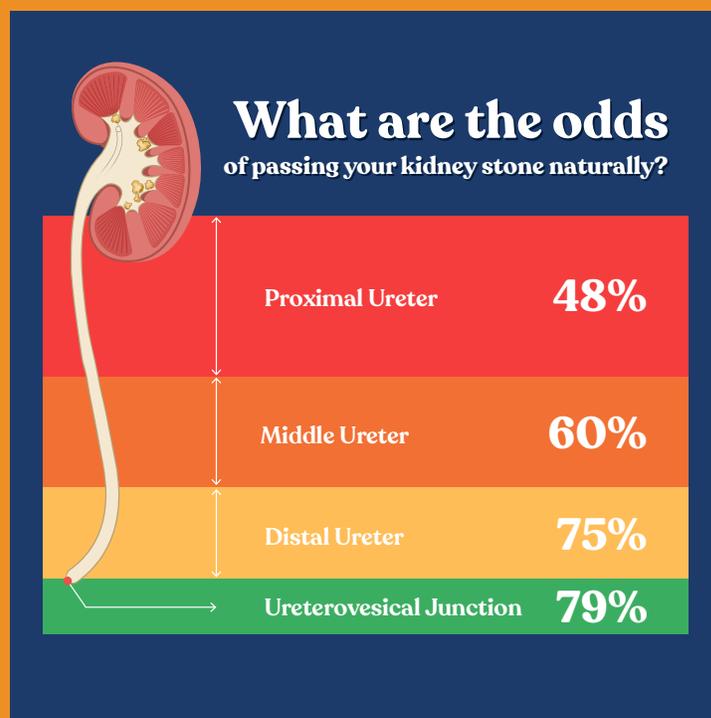
There are several factors, such as size and location of your stone, that affect the chances of a stone passing by itself, without medical intervention.



Size

In general, smaller stones (3mm or smaller) have up to 98% chance of passing on their own⁹.

However, if your stone is larger than 6mm, it's likely that you'll require treatment for it.



Location

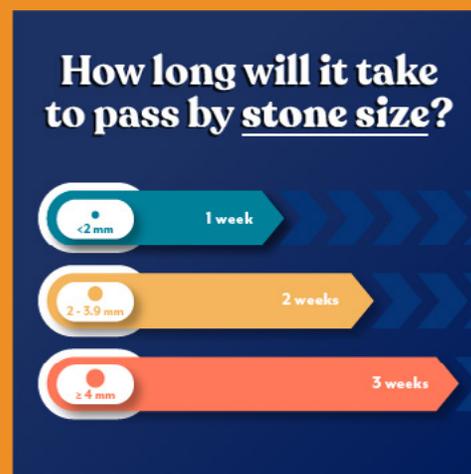
The likelihood of your stone passing increases the closer it is to your bladder⁹.

HOW LONG WILL IT TAKE FOR YOUR STONE TO PASS?

Stone size

Stone size is one of the factors that determines how long a stone will take to pass, and the chances of it passing spontaneously.

Stone size	Duration	Success Rate
2 mm stones or smaller	~ 1 week (about 8 days)	87%
3 mm stones	~ 2 weeks (12 days)	76%
4 mm or bigger	~ 3 weeks or more (22-39 days)	60% ¹⁰



How long should I wait?

In general, almost 86% of kidney stones will pass naturally within 30-40 days¹⁰. It is safe to wait up to 4–6 weeks for a stone to pass, although this is dependent on¹¹:

- The level of pain you're able to bear
- If there are any signs of infection
- How much the stone is blocking the kidney
- The size of the stone

If you're still struggling to pass a stone, or are in intolerable pain, it may be time to visit your urologist again. Your urologist may then conduct some tests (e.g. CT scan) to decide if you will need to undergo a procedure.

10. Thakore, P., & Liang, T. (2022). *Urolithiasis*. National Library of Medicine. Retrieved 29 August 2022, from <https://www.ncbi.nlm.nih.gov/books/NBK559101/>.

11. *Kidney Stones*. Urology Care Foundation. Retrieved 29 August 2022, from <https://www.urologyhealth.org/urology-a-z/k/kidney-stones>.

Got more burning questions?
Check out our [website](#) for medically-reviewed articles,
expert interviews and helpful webtools.

Feel like you're battling the worst pain ever alone?
Join our [Kidney Stone Warriors Facebook Group](#) and reach out
to others who get it.

For partnerships or feedback, write to us at
info@worstpainever.com



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