

Your Journey with Kidney Stones



For more information scan this QR code or go to myhealth.alberta.ca/kidney-stone-pathway

Kidney stones are formed when substances normally found in your pee (urine) clump together. They can be different sizes and shapes. You may have pain depending on the size of the stone and where it is located in your body. You are the most important part of your healthcare team. This guide will help you to know what to expect as you work with your team to manage and treat your kidney stones. If you have any questions along the way, please ask your healthcare team. Click on the page numbers in blue if you want more information about the step in your journey.

Before your appointment (page 5)

- Write down how you feel, and your questions, symptoms, and concerns.
- Symptoms you may have with kidney stones are pain, blood in your urine, changes in how often or how much you pee, and nausea and vomiting.



Visit your healthcare provider (page 6)

- Consider bringing a family member or friend to support you.
- Share all of your symptoms and concerns. Your health includes physical, emotional, spiritual, financial, and social elements.
- In order to better manage your health condition, your healthcare provider needs to hear from you and understand who you are and what matters to you.



Get your tests (page 8)

Your tests may include:

- Ultrasound
- CT Scan
- X-ray of your Kidney, Ureter and Bladder (called KUB)
- Collection of your urine (called an urinalysis)
- Bloodwork (testing for electrolytes and creatinine)



Review your test results (page 8)

- Find your test results on MyHealth Records or MyChart (myhealth.alberta.ca/myhealthrecords or ahs.ca/mychart).
- Talk with your healthcare provider so you know what your test results mean and how they will help your team and you decide what to do next.



Review your management & prevention options (page 10)

- For most people with kidney stones, the use of over-the-counter pain medication is recommended.
- Always follow your healthcare provider's recommendation on how much fluid you should drink.
- Most people should drink enough water (2 to 3 liters) to pee 2.5 liters a day (about 7 to 8 pees a day).
- Your pee should be pale yellow or clear.
- To prevent kidney stones some dietary and lifestyle changes may be needed.



Talk with your healthcare provider about a referral (page 11)

- Not all patients need a referral to see a kidney stone specialist.
- A referral is determined based on the size of the kidney stone, your symptoms, where the kidney stone is located in your body, and your test results.



Start your management & watch your symptoms (page 12)

- If you have a fever or blood in your urine make sure to tell your healthcare team.
- Take an active role in your management. For example, if you have a change in symptoms or notice a new symptom consider writing down what it feels like, the date, time and what you were doing when it began.



Keep taking care of yourself (page 13)

- Keep taking care of your overall health.
- Look for other healthy-lifestyle resources and supports.



Whole-person health (page 2)

Important Tips:

Need to connect with a primary care clinic?

ahs.ca/findadoctor

Need a translator or interpreter? Let your healthcare provider know

Need health advice?

Call Health Link at 811

Need to find programs and resources in your community?

Call 211 or visit ab.211.ca



Primary Care
Alberta

How to use this resource

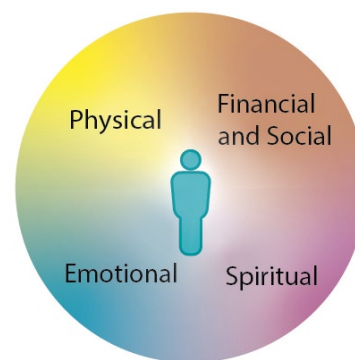
The information provided in this resource is based on validated evidence from a variety of sources, including healthcare professionals in Alberta, peer-reviewed journals, current clinical guidelines, validated patient resources, and specialty care recommendations. It is intended as general health information and should not replace the clinical judgement of a qualified healthcare provider. This resource does not address the unique needs of individual patients. Always consult with your healthcare team and follow their recommendations for your specific care.

These pages are for you to use as needed. You can look through all of them at once or just the ones that help you now. Feel free to come back to the resource whenever you need it.

Whole-person health

The whole-person health approach will help you and your healthcare team better manage your health condition. It is drawn from the teachings of the medicine wheel.

Whole-person health means thinking about all parts of your health and wellness: physical, financial and social, spiritual, and emotional. All of these parts are connected and influence each other. It's important to be aware of your personal needs in each part and to share that information with your healthcare team.



Whole-person health

- **Physical:** your specific health conditions and how well your body works
- **Financial and Social:** your ability to meet your housing, transportation, food, and health needs, feeling supported to manage your daily life, and having meaningful relationships
- **Spiritual:** your beliefs, sense of connection, and purpose
- **Emotional:** how you think, feel, and cope with life events

Whole-person health also reminds us that we are all connected and work together: you, your support systems, and your healthcare providers. Your healthcare providers could be your doctor, nurse practitioner, or a team that comes together with you to plan and organize your care.

Your healthcare provider needs to understand who you are and what matters to you. This helps to build trust. But it can be hard to know what to share or what to say. Try starting by asking yourself:

“What are the things in my life that are important to me?”

“What are the things in my life that may be affecting my health and well-being?”



Bringing forward what matters to you is important. Here are some examples of things you may want to talk about with your healthcare provider:

Physical

“My symptoms are making it hard for me to do my job.”

“Because of my pain and how hard it is for me to move around, it’s hard to take care of myself.”

Financial and Social

“I’m worried I won’t be able to get to all of my appointments.”

“I need my daughter with me as a translator.”

“I’m not sure how I will pay for my medications this month.”

Emotional

“I’m lonely and have no one to talk to.”

“I have a lot of stress and I’m not sure how to manage it.”

“Ever since my friend died, I’ve been struggling with my feelings.”

Spiritual

“It’s important that I follow traditional healing practices.”

“How can I include my culture’s foods and family recipes in my nutrition plan?”

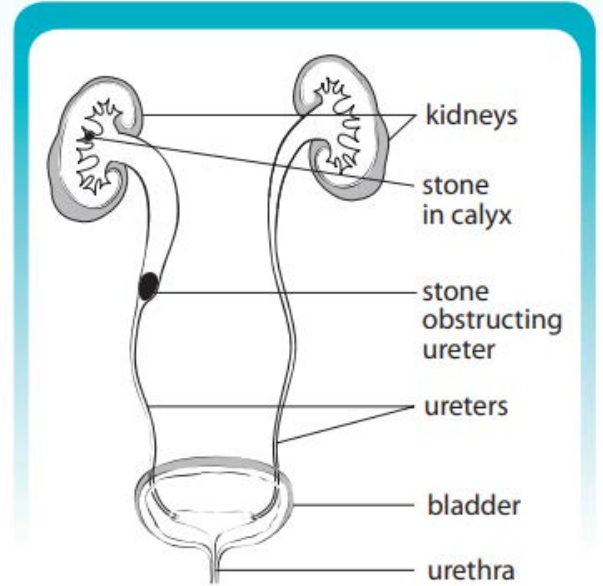
“It’s important that my religious practice of fasting is respected and brought into my care.”

What are kidney stones?

The kidneys play an important role in helping your body get rid of substances you don't need. Kidney stones are formed when salts, minerals, and other substances clump together and don't pass in your urine.

There are different types of kidney stones. Calcium stones are the most common. Kidney stones can vary in size and can be as small as a grain of sand or as large as a marble. Kidney stones can appear in the kidneys or ureters (tubes that carry urine from the kidneys to the bladder) and they can move over time.

They may be painless while they remain in the kidney. But they may cause pain when they leave the kidney and travel through the narrow tubes (ureters) to the bladder.



Source: Canadian Urological Association
www.cua.org/system/files/PIB/PIB35_en.pdf

Before your appointment

Here are a few tips to help you get ready for your appointment with your healthcare provider:

- Use a symptom tracker to write down important information to share with your healthcare team about your symptoms.
- **Common symptoms you may have with kidney stones are:**
 - **Pain-** in your back or flank (just below the rib cage and above the waist, usually only one one side of the back). The pain may spread to the lower stomach (abdomen), groin, and genital area.
 - **Blood in the urine** (hematuria)
 - **Painful urination** (dysuria)
 - **Nausea and vomiting**
 - **Changes in how often or how much you pee** (urinary frequency and urgency)
- A symptom tracker can help you remember what symptom you're feeling, when it started, how often it happens, if the symptom changes and what makes your symptoms better or worse.
- When you're done using the symptom tracker, review your list and put a mark beside the questions and concerns that are most important for you to share with your healthcare provider.
- Make a list of the prescription and non-prescription (over the counter) medicines you use, including any vitamins, lotions, herbs, and supplements.
- Ask someone you trust to go with you to your appointment. They can help you ask questions, write down instructions, and remember explanations.



Helpful tools and resources

- Use a symptom tracker: hqca.ca/symptom-tracker (Health Quality Alberta)
- To get the most out of your visit, plan to write notes during the visit or see the Alberta Health Services **My Care Conversations app** (ahs.ca/careapp) website for more information about recording your conversation with your healthcare provider.



Healthcare provider's assessment

Pain and Symptom Assessment:

- **Why do I need this assessment?:** To understand how the kidney stone may be impacting you and the things that are important to you.
- **What should I expect?:** Your healthcare provider may ask you about your pain level. They may also ask about other symptoms such as if your urine has any blood in it, if you are peeing more or less often than usual, if it hurts to pee and if you have had any nausea or vomiting.

Fluid Intake Assessment:

- Your healthcare provider may ask how much and what kind of fluid you drink.

What should I watch for (symptoms of concern)?

Contact your healthcare team if you:

- Develop a fever
- Have blood in urine
- Have increasing pain that is not getting better with pain medication
- Have nausea and vomiting
- Have trouble peeing or peeing more often than usual

What should I share with my healthcare provider?

- What impact the kidney stones or pain associated with the kidney stones is having on things that are important to you, like your job, hobbies and interests, and relationships
- There are lots of things in your life that can impact your ability to manage your health, like:
 - Problems with money, housing, and access to transportation
 - Alcohol or drug use
 - Not enough support or help
 - Childhood experiences that continue to impact your adult life

What should I share with my healthcare provider?

It's important to talk about these things with your healthcare provider because they all play a role in your health and well-being.

You are the most important part of your healthcare team.

If you don't understand what your healthcare team is telling you, let them know right away. Be open and honest. You might say:

"This is new to me. Could you please explain it slowly, using language that is easier to understand?"

"It sounded like you said that I should... Did I understand that correctly?"

"Can you show me a picture or model to help me understand?"



Helpful tools and resources

- Making the most of your appointment:
myhealth.alberta.ca/health/pages/conditions.aspx?Hwid=hw226888
- Working with your healthcare team: hqa.ca/info (Health Quality Alberta)



Get your tests

Your healthcare team may ask you to provide a urine sample. The urine sample will be tested to see what the urine looks like and what might be in it. This is called a urinalysis.

You may also be asked to get blood work. Blood tests, that look for things like electrolytes and a waste byproduct called creatinine, will help your healthcare provider understand how your kidneys are working. The blood tests and urinalysis may help your healthcare team know why your kidney stones formed and what steps might be recommended to manage and prevent further kidney stones.

To be able to tell where the kidney stone is located in your body, your healthcare provider may order one or more of the following diagnostic tests:

- Ultrasound (An ultrasound is a type of imaging test that uses sound waves. It takes pictures of the organs and other structures in your body: myhealth.alberta.ca/health/tests-treatments/pages/conditions.aspx?Hwid=acm0328)
- X-ray of your kidney, ureter, and bladder (x-rays are a form of radiation, like light or radio waves, that can be focused into a beam, much like a flashlight beam. Unlike a beam of light, though, X-rays can pass through most objects, including the human body).
- CT Scan (A computed tomography (CT) scan uses X-rays to make detailed pictures of structures inside of the body): myhealth.alberta.ca/health/tests-treatments/pages/conditions.aspx?Hwid=hw233596

Helpful tools and resources on next page.



Review your test results

It is important to know what your test results are and what they mean. Take time to discuss your results with your healthcare provider. Medical terms can be hard to understand. And even common words like “positive” or “negative” might mean something different for medical tests. Ask your healthcare provider for explanations and examples to make sure you fully understand.

You might ask:

“What does this mean for me?”

“Is there a current concern? If so, what is it?”



Helpful tools and resources on next page.



Helpful tools and resources

You may find some of your results and health information using secure online tools:

MyHealth Records

See your lab results, immunizations, and some other results with a MyHealth Records account.

Sign up at myhealth.alberta.ca/myhealthrecords

MyChart

See your health information, manage your Alberta Health Services appointments, and interact directly with some members of your healthcare team. Ask your healthcare provider how to

access your MyChart account. Learn more at ahs.ca/mychart.



Review your management and prevention options

Fluid Intake

- **The most important thing for kidney stone prevention is making sure you drink enough fluid.** The crystals that make up a kidney stone are less likely to form if you drink enough fluid.
- Water is the best fluid. **Always follow your healthcare provider's instructions when increasing how much fluid you drink (fluid intake).** You may be asked to drink enough fluid so that you produce 2.5 L of pee (urine) every day. It can be helpful for you to track how much fluid you drink and how many times you pee.
- Try to drink enough to pee 7 to 8 times every day. To do this, you should:
 - Drink even when you are not thirsty.
 - Drink after each time you pee.
 - Try to drink enough so your pee is very pale yellow or clear.
- Limiting the amount of sugary drinks you have (including fruit juice) may also help prevent kidney stones from forming.

Pain Management

- Your healthcare provider may recommend over the counter medicine to relieve your pain, such as non-steroidal anti-inflammatory drugs (NSAIDs). Depending on your pain level and where the kidney stone is located, your healthcare provider may also recommend other medications to help you manage the pain you are experiencing.

Nutrition

- Your healthcare provider may recommend you follow a diet that helps manage and prevent kidney stones. You may be asked to see a dietitian who can help you incorporate a healthy diet for managing and preventing kidney stones.
- You can find specific diet information here for kidney stones:
ahs.ca/assets/info/nutrition/if-nfs-kidney-stones-and-your-diet.pdf

Healthy Lifestyle Management

- Physical activity and eating healthy can help you stay at healthy body weight. This can help lower your risk of kidney stones.
- Your healthcare provider will recommend what is best for you for physical activity. For most people 150 minutes of moderate to vigorous intensity aerobic activity every week, is recommended. Moderate intensity means your breathing and heart rate are a little higher than normal and you're sweating a little by the time you're finished. There are lots of ways to get 150 minutes of physical activity per week. You can do:
 - 30 minutes of activity, five days a week
 - 10 minutes of activity, fifteen times a week (e.g., during lunch or breaks at work)
- If you haven't been active lately, start slow. You can slowly increase how long you're active for. Set manageable and realistic goals for yourself.



Talk with your healthcare provider about a referral

- Not all patients with Kidney Stones need a referral. Depending on your symptoms, the size of your kidney stone and where it is located in your body you may need a referral to a Urologist.
- A Urologist is a medical specialist who focuses on helping patients with diseases and conditions of the male and female urinary systems, as well as the male reproductive system.
- You should hear about the progress of the referral to your Urologist within 3 months.
- Your Urologist will assess you and your condition and recommend what treatment is best for you and your needs.



Helpful tools and resources

To learn about how to prepare for your specialist appointment, check out the QuRE Patient and Caregiver Journal by visiting ahs.ca/qure.



Start your management and watch your symptoms

As you try different management options, remember that if something doesn't work the way you thought it would, think about other options and connect with your healthcare provider to find what will work for you.

Remember to watch for:

- Fever
- Blood in your urine
- Increasing or severe pain in your side, belly, groin or genitals
- Increasing pain when peeing
- Not being able to pee
- Peeing more or less

Some kidney stones may need to be monitored regularly. In these cases your healthcare provider may ask you to have an annual x-ray or ultrasound of the kidneys. Any nutrition, medication and health changes can be reviewed at that time.

Watching your symptoms is important. Call your healthcare provider or Health Link at 811 if you have any concerns. You might feel like you don't want to bother your healthcare team, but no detail is too small to share. If it matters to you, it will matter to your healthcare team.

You can clarify with your healthcare team what to expect in terms of follow-up communication. Call your healthcare team whenever you:

- Have questions
- Notice your symptoms getting worse
- Have problems with your medicine
- Haven't gotten test results or heard back about an appointment in the time you had agreed to



Helpful tools and resources

If you can't reach your healthcare provider and need health advice or information, call Health Link anytime, day or night, by dialing **811**.



Keep taking care of yourself

There are many things that you may need to consider on your journey with kidney stones. It is important to be able to work with your healthcare team to decide what is best for you, in your life, given your own unique circumstances.

You don't need to do everything all at once. Take realistic and manageable steps. Consider why making a change may benefit you and the things that matter to you.



Helpful tools and resources

Find programs and resources in your community:

211 connects Albertans to the programs and resources they need, anytime, day or night. Whether you're looking for help with mental health, financial assistance, basic needs or other challenges, 211 is here to help you find supports. It's free, confidential, and available in over 170 languages by phone, making it easy to access help when you need it.

To connect with **211 Alberta**:

- Call 211
- Text INFO to 211
- Chat or search at ab.211.ca

The **Alberta Healthy Living Program** offers free workshops, classes, and supervised exercise and nutrition services to adults living with a variety of chronic conditions and diseases. Many education classes and workshops are available province wide. Learn more by visiting ahs.ca/ahlp.

Chronic Disease Management support: ahs.ca/cdm

Health information & tools: myhealth.alberta.ca/Pages/HealthInfoToolsDefault.aspx

Resources

There's lots of information out there, and it can be confusing to know what information is accurate and true. Here are some great resources that may be helpful for you.

- Canadian Urological Association cua.org/system/files/PIB/PIB35_en.pdf
- National Kidney Foundation: kidney.org/atoz/content/kidneystones

Get help now:

- Emergency: Call 911
- [Health Link](#): Call 811

Mental health, addiction, and crisis support:

- [Addiction Helpline](#): 1-866-332-2322
- [Mental Health Helpline](#): 1-877-303-2642
- Crisis Text Line: Text CONNECT to 741741
- Crisis Services Canada: 988, or visit talksuicide.ca

Helpful tip

If you can't print this resource at home, ask a family member, friend, or your healthcare provider to print it for you. You can also use a computer and printer at your local library.

Community and social supports:

- Alberta 211: 211, or visit ab.211.ca
- Family Violence Info Line: 310-1818, or visit alberta.ca/family-violence-find-supports.aspx
- Income Support: 1-866-644-5135, or visit alberta.ca/income-support.aspx

Alberta Health Services programs:

- Home Care: ahs.ca/homecare
- Find a Dietitian: ahs.ca/nutrition
 - Health Link has dietitians to answer nutrition questions. Call Health Link at 811 and ask to talk to a dietitian or complete the self-referral form on ahs.ca/811.
- Spiritual Care Services: ahs.ca/spiritualcare

Primary care (family doctors):

- Find a doctor or nurse practitioner: ahs.ca/findadoctor
- Virtual care guide: ahs.ca/virtualhealth

Patient concerns and feedback:

- Office of Alberta Health Advocates: alberta.ca/office-of-alberta-health-advocates.aspx
 - Offers coaching to help you advocate for yourself in the health system, and supports learning how the health system works and how to navigate through it.
- Alberta Health Services Patient Relations: 1-855-550-2555, or visit ahs.ca/patientfeedback

Important phone numbers

Name or clinic name:

Phone number:

Name or clinic name:

Phone number:

Name or clinic name:

Phone number:

Notes

Use this space to take notes.

Background

About this Pathway

The Provincial Pathways Unit co-developed this patient pathway in partnership with patient and family advisors, primary and specialty care providers in Alberta. It is current as of **February 2024**.

Authors & Conflict of Interest Declaration

This pathway was reviewed and revised by a multi-disciplinary co-design team including urologists, primary care providers and patient and family advisors from across Alberta.

Pathway Review Process

Primary care pathways undergo scheduled review every three years, or earlier if there is a clinically significant change in knowledge or practice. The next scheduled review is January 2026. However, we welcome feedback at any time. Please send your [feedback here](#), or email us at AlbertaPathways@primarycarealberta.ca.

Copyright Information

This work is licensed under a Creative Commons Attribution-Non-commercial-Share Alike 4.0 International license. You are free to copy, distribute, and adapt the work for non-commercial purposes, as long as you attribute the work to Primary Care Alberta and abide by the other license terms. If you alter, transform, or build upon this work, you may distribute the resulting work only under the same, similar, or compatible license. The license does not apply to content for which Primary Care Alberta is not the copyright owner.

Disclaimer

This pathway represents evidence-based best practice but does not override the individual responsibility of healthcare professionals to make decisions appropriate to their patients using their own clinical judgment given their patients' specific clinical conditions, in consultation with patients/alternate decision makers. The pathway is not a substitute for clinical judgment or advice of a qualified healthcare professional. It is expected that all users will seek advice of other appropriately qualified and regulated healthcare providers with any issues transcending their specific knowledge, scope of regulated practice or professional competence.