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## Loin pain hematuria syndrome

[Información en español \(/espanol/13505/sindrome-del-dolor-lumbar-hematuria\)](#)**Other Names:** LPHS

### Summary

**Loin pain hematuria syndrome (LPHS)** causes severe, unexplained loin pain (<http://www.nlm.nih.gov/medlineplus/ency/article/003113.htm>) and blood in the urine (hematuria (<https://medlineplus.gov/ency/article/003138.htm>)). The pain can be on one side of body or both sides. The frequency and length of pain episodes can vary. The blood may be easily seen in the urine or may only be seen under a microscope. Diagnosis of LPHS includes a variety of tests that rule out other possible causes of the loin pain and blood in the urine. LPHS is considered primary when it occurs without finding any damage to the tiny blood cleaning filters of the kidneys (glomeruli), and secondary when it occurs with glomerular disease (<https://www.niddk.nih.gov/health-information/kidney-disease/glomerular-diseases>) caused by another disease, such as IgA nephropathy (<https://www.niddk.nih.gov/health-information/kidney-disease/iga-nephropathy>). A kidney biopsy (<https://medlineplus.gov/kidneytests.html>) is needed to tell the difference between primary and secondary LPHS.<sup>[1][2]</sup>

The cause of primary LPHS is currently unknown. Unless the glomerular disease is treatable, treatment of both primary and secondary LPHS focuses on relieving the symptoms, mainly through pain management.<sup>[1][2][3]</sup> LPHS is not known to cause major kidney damage, end-stage kidney (<https://medlineplus.gov/ency/article/000500.htm>) disease, or early death.<sup>[1][2]</sup>

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### Symptoms

As the name of the syndrome suggests, the main symptoms of loin pain hematuria syndrome (LPHS) are:<sup>[1][2][3]</sup>

Loin pain (<http://www.nlm.nih.gov/medlineplus/ency/article/003113.htm>): the pain is often described as a burning or throbbing and for some can worsen with exercise or when lying down flat on their back (facing upward). The pain may be felt on one side of the body (unilateral) or both sides (bilateral).

Blood in the urine (<https://medlineplus.gov/ency/article/003138.htm>) (hematuria): the blood may be noticeable in the urine or may only be seen under a microscope. Although larger amounts of blood in the urine are usually associated with severe pain episodes, in some cases, the blood may clear up even during a pain episode.

Other symptoms of LPHS may include:<sup>[1][2][3]</sup>

Nausea and vomiting (<https://medlineplus.gov/nauseaandvomiting.html>) during episodes of pain

Low-grade fever (<https://medlineplus.gov/fever.html>) (up to 101°F)

Painful urination (<https://medlineplus.gov/ency/article/003145.htm>)

LPHS can affect people differently. The episodes of pain and blood in the urine can last hours, weeks, or may be constant. Episodes can range from happening several times a year to being chronic with little or no relief between episodes.<sup>[1][2]</sup>

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### Cause

The cause of loin pain hematuria syndrome (LPHS) is not known. The blood in the urine associated with LPHS is believed to come from the glomeruli (<https://www.niddk.nih.gov/health-information/kidney-disease/glomerular-diseases>), which are the tiny blood filtering units of the kidneys. Normally

([https://app-na.readspeaker.com/cgi-bin/rsent?customid=6910&lang=en\\_us&mp;readid=readSpeaker\\_Summary&url=https%3A%2F%2Frarediseases.info.nih.gov%2F6920%2Floin-pain-hematuria-syndrome](https://app-na.readspeaker.com/cgi-bin/rsent?customid=6910&lang=en_us&mp;readid=readSpeaker_Summary&url=https%3A%2F%2Frarediseases.info.nih.gov%2F6920%2Floin-pain-hematuria-syndrome))

the blood is filtered in a glomerulus and the waste and extra fluid is passed into a connected tubule to become urine. However, the majority of kidney biopsies from people with LPHS also find red blood cells in the tubules, suggesting at least some of the glomeruli are damaged or abnormal, causing them to be leaky. It is not clear however why sometimes the kidney biopsies do not find red blood cells in the tubules. The pain associated with LPHS is believed to come from the kidneys, but how the pain develops is not understood.<sup>[1][2][3]</sup>

About half of the people with LPHS have had kidney stones in the past. Some scientists, therefore, suspect that the formation of crystals and/or stones in the kidney may also contribute to LPHS as the crystal or stones may block or injure the renal tubules (the long narrow tubes in the kidney that concentrate and transport urine).<sup>[1][2][3]</sup>

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## Diagnosis

Loin pain hematuria syndrome (LPHS) is diagnosed when all other nonglomerular (<https://www.niddk.nih.gov/health-information/kidney-disease/glomerular-diseases>) causes of the symptoms have been ruled out (known as a diagnosis of exclusion). Glomeruli are the blood cleaning units of the kidneys and are believed to be the source of the bleeding in LPHS. In addition to ruling out other possible causes, the episodes loin pain and blood in the urine must persist or be recurrent for at least 6 months and not associated with blockages due to kidney stones.<sup>[1][2]</sup>

Tests to rule out other possible causes of loin pain and blood in the urine may include:<sup>[1][2]</sup>

Urine culture (<https://medlineplus.gov/ency/article/003751.htm>) to rule out infection

Urinalysis (<https://medlineplus.gov/urinalysis.html>) to check for damage to the filtering units of the kidney (glomerular disease (<https://www.niddk.nih.gov/health-information/kidney-disease/glomerular-diseases/>))

Endoscopy of the urethra and bladder (cystoscopy (<https://www.urologyhealth.org/urologic-conditions/cystoscopy>)) and/or CT scan to rule out kidney stones, tumors, and cysts

Special X-ray or CT scan with dye (angiography or CT angiography (<http://www.urologyhealth.org/urologic-conditions/urologic-radiology/what-is-a-ct-scan>)) to rule out problems with the kidney's blood vessels, such as a tangle of veins and arteries (arteriovenous malformations or AVM) (<https://medlineplus.gov/arteriovenousmalformations.html>) or benign tumors made up of a build up of blood vessels (hemangiomas (<https://medlineplus.gov/ency/article/001459.htm>))

Upper urinary tract endoscopy (flexible ureteroscopy) to rule out problems with the tubes that carry the urine from the kidneys to the bladder (ureters (<https://medlineplus.gov/ureteraldisorders.html>))

Special blood tests to rule out bleeding disorders (<https://medlineplus.gov/bleedingdisorders.html>)

A kidney biopsy (<http://www.urologyhealth.org/urologic-conditions/biopsy>) may be performed to rule out secondary LPHS if there are any signs of glomerular disease, such as microscopic blood in the urine or abnormal shaped blood cells with the presence of protein in urine (proteinuria), and/or increased creatinine levels (<https://medlineplus.gov/ency/article/003475.htm>) in the blood. In some cases, a kidney biopsy may also be recommended to evaluate the structure and function of the kidney.<sup>[1][2][3]</sup>

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## Treatment

At this time, there is no disease-specific treatment or cure for loin pain hematuria syndrome (LPHS), since the cause of the disease is not understood. Unless the cause of glomerular disease (<https://www.niddk.nih.gov/health-information/kidney-disease/glomerular-diseases>) is treatable, the treatment of primary and secondary LPHS focuses on pain management.<sup>[1][2]</sup>

People with LPHS may be told to avoid activities that increase or trigger their pain, such as exercise, riding in a car, or lying on their back. Pain management may include medications, such as non-opioid pain pills (analgesics (<https://www.drugs.com/drug-class/analgesics.html>)), narcotics (<https://medlineplus.gov/ency/article/007489.htm>), or opioids (<http://www.nlm.nih.gov/medlineplus>

/magazine/issues/spring11/articles/spring11pg9.html) depending on the severity of pain, and/or possibly a nerve block (<https://www.radiologyinfo.org/en/info.cfm?pg=nerveblock>) or transcutaneous electrical nerve stimulation (TENS). Medications may also be used to treat nausea and vomiting if needed. If there is a history of kidney stones (<https://medlineplus.gov/kidneystones.html>) or build of calcium deposits (<https://medlineplus.gov/ency/article/002321.htm>), recommended treatment may include management of the amount of liquid a person drinks or changes in diet.<sup>[1][2]</sup>

Limited evidence suggests that drugs that inhibit angiotensin (<http://www.nlm.nih.gov/medlineplus/ency/patientinstructions/000087.htm>) may reduce the frequency and severity of episodes of loin pain and severe hematuria.<sup>[1][2]</sup> Similarly, one study in 2009 found neuromodulation (<http://www.neuromodulation.com/about-neuromodulation>) through implanted electrodes successfully reduced the pain in four women with LPHS, but it is unclear if neuromodulation has been tested further as a treatment for LPHS.<sup>[2][4]</sup>

People with debilitating pain who do not respond to other therapies may be offered surgery, such as renal denervation, nephrectomy (<http://www.nlm.nih.gov/medlineplus/ency/article/003001.htm>), or kidney auto-transplantation; however, surgical treatment of LPHS is controversial as some studies suggest that it has limited value for treating the recurrent pain and the possible complications of the procedures may outweigh the benefits.<sup>[1][2]</sup>

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## Prognosis

While LPHS does not normally affect the function of the kidneys or cause other health problems, the pain associated with LPHS can be chronic and/or severe and may seriously decrease a person's quality of life. Long term treatment with narcotics and opiates can lead to drug addiction, which can add further social and medical issues.<sup>[1][2]</sup> Due to the disabling nature of chronic, severe pain, those caring for a person with LPHS should watch for signs of depression and/or anxiety.<sup>[5]</sup>

Currently, there are few long term studies to have a clear understanding of the course of LPHS, but two small, older studies, as well as the experience of specialists, propose the symptoms of LPHS will eventually get better spontaneously, however this can be after many years. Published cases and studies suggest a range for the duration of symptoms of 2-35 years.<sup>[2][6][7]</sup>

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## Organizations

Support and advocacy groups can help you connect with other patients and families, and they can provide valuable services. Many develop patient-centered information and are the driving force behind research for better treatments and possible cures. They can direct you to research, resources, and services. Many organizations also have experts who serve as medical advisors or provide lists of doctors/clinics. Visit the group's website or contact them to learn about the services they offer. Inclusion on this list is not an endorsement by GARD.

### Organizations Supporting this Disease

National Kidney Federation (NKF) (/organizations/2985)  
The Point  
Shireoaks  
Coach Road  
Worksop  
Notts S81 8BW  
United Kingdom  
Telephone: 0845 601 02 09  
Website: <http://www.kidney.org.uk/> (<http://www.kidney.org.uk/>)

### Social Networking Websites

Visit the following Facebook groups or pages related to Loin pain hematuria syndrome:  
LPHS Awareness (<https://www.facebook.com/loinpainhematuriasyndromeuk/>)  
Loin Pain Hematuria Syndrome (LPHS) Help And Support (<https://www.facebook.com/groups>)

/LPHShurts/)

Loin Pain Hematuria Syndrome Support Group (<https://www.facebook.com/groups/1679726885678604/>)

LPHS SOS (LPHS STATUS of SUPPORT) (<https://www.facebook.com/groups/lphsdays11/>)

Loin Pain Hematuria Syndrome Awareness and Education (<https://www.facebook.com/LPHSAwareness/>)

### Organizations Providing General Support

American Association of Kidney Patients (/organizations/114)

3505 E. Frontage Rd., Suite 315

Tampa, FL 33607-1796

Toll-free: 800-749-2257

Telephone: 813-636-8100

Fax: 813-636-8122

E-mail: [info@aakp.org](mailto:info@aakp.org) (<mailto:info@aakp.org>)

Website: <http://www.aakp.org> (<http://www.aakp.org>)

National Kidney Foundation (/organizations/97)

30 East 33rd Street

New York, NY 10016

Toll-free: 800-622-9010

Telephone: 212-889-2210

Fax: 212-689-9261

E-mail: [info@kidney.org](mailto:info@kidney.org) (<mailto:info@kidney.org>)

Website: <https://www.kidney.org/> (<https://www.kidney.org/>)

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### Learn More

These resources provide more information about this condition or associated symptoms. The in-depth resources contain medical and scientific language that may be hard to understand. You may want to review these resources with a medical professional.

#### Where to Start

The National Kidney Federation (<http://www.kidney.org.uk/help-and-information/medical-information-from-the-nkf-/kidney-diseases-index/medical-info-kidney-disease-lph/>) offers an information page on Loin pain hematuria syndrome. Please click on the link to view this resource.

#### In-Depth Information

PubMed (<http://www.ncbi.nlm.nih.gov/pubmed?term=%28Loin%5BTittle/Abstract%5D%20AND%20pain%5BTittle/Abstract%5D%20AND%20hematuria%5BTittle/Abstract%5D%20AND%20syndrome%5BTittle/Abstract%5D%29%20AND%20hasabstract%5Btext%5D&cmd=DetailsSearch>) is a searchable database of medical literature and lists journal articles that discuss Loin pain hematuria syndrome. Click on the link to view a sample search on this topic.

### GARD Answers

Questions sent to GARD may be posted here if the information could be helpful to others. We remove all identifying information when posting a question to protect your privacy. If you do not want your question posted, please let us know.

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*Have a question? Contact a GARD Information Specialist. (</about-gard/contact-gard/>)*

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### References

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