



# Uveitis

A guide to your condition  
and its treatment



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# Being diagnosed with uveitis can be shocking and scary.

## What is it? What can I expect?

This booklet will help you understand uveitis, including some fast facts about your condition, symptoms you may experience, and treatment options available to you.

You should know from the start that there are ways to manage uveitis.

And you should also know that you are not alone. Your doctor and health care team – which could include your ophthalmologist, rheumatologist, gastroenterologist, nurse, pharmacist, nutritionist, physiotherapist, occupational therapist and/or patient organization – are there to help you and answer questions along the way. Early diagnosis and treatment are key to managing your condition, so you'll work closely with your health care team to decide which options are suitable for you.



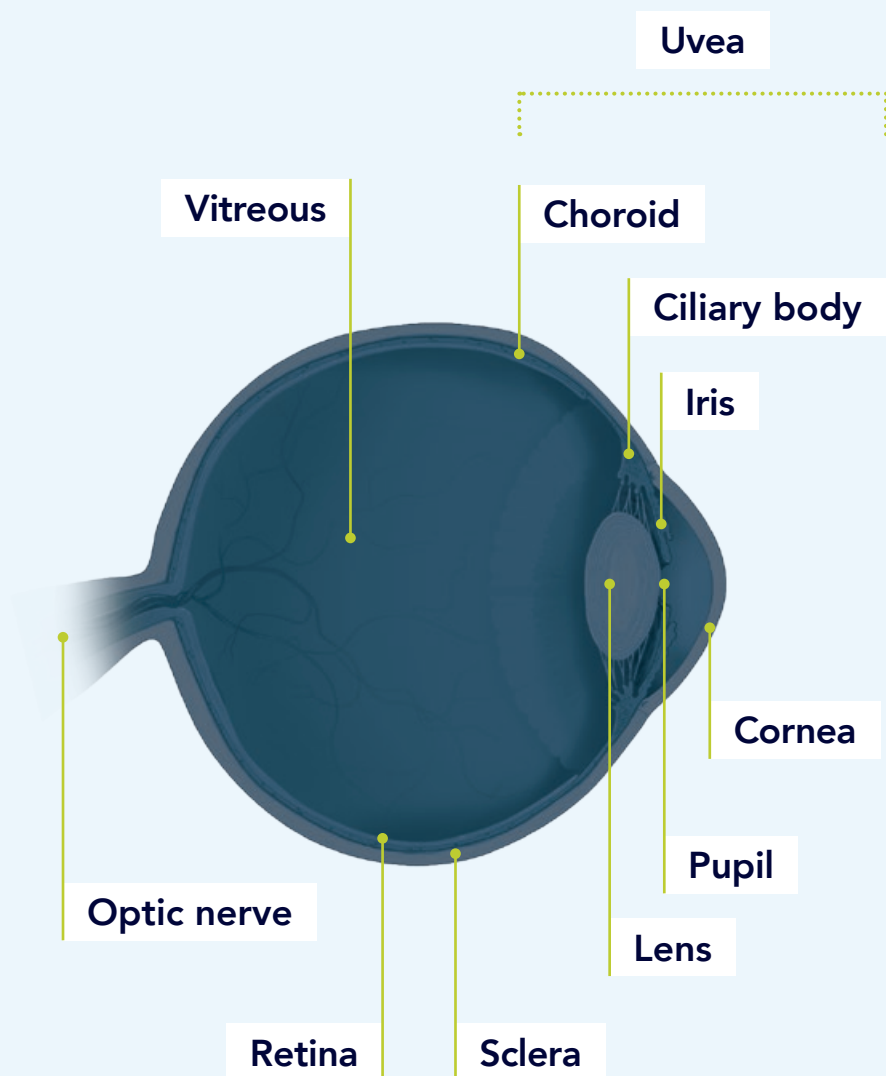
# Let's begin our discussion by taking a closer look at what's happening inside your body when you have uveitis.

## What is uveitis?

Uveitis is not a specific condition, but a group of disorders characterized by the inflammation of the middle portion of the eye, called the uvea. The uvea consists of the iris, ciliary body, and choroid.

- **Iris:** It is the coloured portion of the eye that controls the amount of light entering into it.
- **Ciliary body:** It helps the eye to focus by controlling the shape of the lens, and provides nutrients to the eye.
- **Choroid:** It provides blood to the eye so we are able to see images.

**Uveitis disrupts vision primarily by causing problems with the lens, retina, optic nerve, and vitreous.**





# Fast facts about uveitis

- It can involve **one** or **both eyes**.
- It primarily affects people **ages 20 to 50**, but it may also affect children.
- Approximately **200** out of **10,000 people** are **newly diagnosed** with uveitis each year.

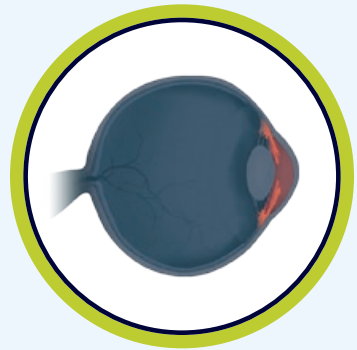


- Uveitis is an important cause of visual loss:
  - It causes **20%** of all legal blindness.
  - **Vision loss** in young adults is most often caused by uveitis.
  - In the developed world, it is the **fifth most common cause of visual loss** for people between the ages of **20 to 60 years**.
- Although previously believed to be uncommon in the elderly, recent studies have found it to **increase in the elderly population** as well.

# The type of uveitis you have depends on which part or parts of the eye are inflamed:

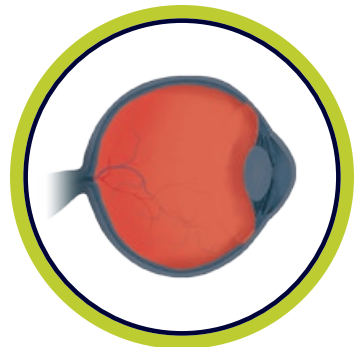
## **ANTERIOR UVEITIS (IRITIS)**

affects the front of the eye (iris, the ciliary body, or both). It is the most common and occurs predominantly in young and middle-aged people.



## **INTERMEDIATE UVEITIS**

affects the **vitreous**, a clear gel found within the eye. It is commonly seen in young adults.





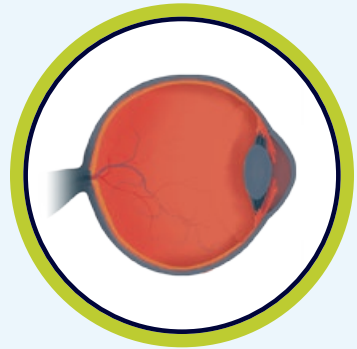
## **POSTERIOR UVEITIS (CHOROIDITIS AND RETINITIS)**

affects the back of the eye  
(**choroid and retina**). It is the  
least common form of uveitis.



## **PANUVEITIS**

affects **all the layers**  
of the uvea.



**Your uveitis can also be classified by the duration  
of your symptoms:**

- Acute uveitis – lasts for a few weeks to months before it resolves.
- Chronic uveitis – lasts from months to years. Some cases of chronic uveitis never completely resolve.

# Signs and symptoms

These vary from person to person. They may occur suddenly and get worse quickly, though in some cases, symptoms develop gradually. Some people, particularly children and young adults, may not experience any symptoms at all.

The symptoms you experience can depend on your type of uveitis.

- Anterior uveitis often causes pain, light sensitivity, and blurred vision.
- Intermediate uveitis often leads to seeing floaters and blurred vision.
- Posterior uveitis often leads to seeing floaters, decreased or lost vision.



## You may have one or many of the following:



Eye redness



Eye pain



Light sensitivity



Blurred vision



Dark, floating spots  
in your field of vision (floaters)



Decreased vision



Tearing



Flashing lights



Narrowing of the pupils

## What causes uveitis?

Inflammation is the body's natural response to harmful stimuli, such as tissue damage, germs, or toxins. In an attempt to contain or eliminate the insult, inflammation produces swelling, redness, heat, and destroys tissues as certain white blood cells rush to the affected part of the body.



**In about half of all cases, the exact cause of uveitis isn't clear, and doctors call this "idiopathic." In the rest of cases, uveitis may be caused by one of the following:**

- Eye injury or surgery
- An autoimmune disorder, such as sarcoidosis or ankylosing spondylitis
- An inflammatory disorder, such as Crohn's disease or ulcerative colitis
- An infection, such as cat-scratch disease, herpes zoster, syphilis, toxoplasmosis, tuberculosis, Lyme disease, or West Nile virus
- A cancer that affects the eye
- Genetics



# Several diseases have been associated with uveitis, including:

## Arthritis syndromes

Anterior uveitis commonly occurs in patients with arthritis syndromes.

- **Ankylosing spondylitis** – a form of arthritis that most often leads to pain and prolonged stiffness of the back and hips. It is one of the most common causes of uveitis. Although uveitis can occur in both eyes, often one eye is affected before and more severely than the other. The uveitis symptoms may occur at the same time or before any signs of the joint disease. In addition to receiving medical care from an ophthalmologist, patients may be referred to a rheumatologist to monitor the arthritis.
- **Reactive arthritis** – a form of arthritis that causes a variety of symptoms, including skin rashes, burning, painful or frequent urination, pain and stiffness in joints, heel pain, mouth ulcers,

and uveitis. Uveitis can occur in both eyes and is severe. Reactive arthritis may occur as a result of sexually transmitted infections, infections due to food poisoning or drinking unclean water, or genetic inheritance.

- **Juvenile idiopathic arthritis (JIA)** – a group of arthritis disorders that affects children. It causes pain and joint stiffness, and in some cases fever and abdominal pain. Those who develop uveitis usually only have mild pain in less than four joints. Uveitis can affect both eyes but it normally does not create symptoms. The swelling within the eye can last from months to years, does not get better on its own, and can lead to blindness. Patients with JIA should regularly visit an ophthalmologist for a thorough eye examination.
- **Psoriatic arthritis (PsA)** – a form of arthritis that affects some people who have psoriasis, a condition characterized by patches of thick, inflamed red skin that are often covered with silvery scales. PsA causes joint pain, swelling, and stiffness. It may also cause swelling in the areas where tendons attach to bones, swelling of fingers and toes, nail problems, and uveitis.



## ***Behcet's syndrome***

A condition of unknown cause characterized by sores in the mouth, sores on the sex organs, and posterior uveitis. Although it is a relatively rare cause of uveitis in North America, it is a common cause in Turkish, Middle Eastern, and Asian populations. Uveitis occurs in both eyes and leads to blurred vision, red eye, eye pain, and light sensitivity. Aggressive treatment is needed to prevent blindness.

## ***Psoriasis***

A chronic skin condition that may cause red patches of skin covered with silvery scales; small scaling spots; dry, cracked skin that may bleed; itching, burning, or soreness; thickened, pitted, or ridged nails; and swollen and stiff joints.

## Gastrointestinal diseases

Some patients with certain gastrointestinal diseases may develop anterior or intermediate uveitis that affect both eyes. Patients with uveitis experiencing gastrointestinal symptoms should inform their ophthalmologist, and medical care for these patients should be provided by a team of physicians including a gastroenterologist.

- **Whipple's disease** – rare disease caused by bacteria. It may lead to blurred vision, vision loss, poor digestion of food, joint pain and stiffness, abdominal pain, nausea, fever, and diarrhea.
- **Ulcerative colitis** – a lifelong disease that causes bloody diarrhea, mild fever, abdominal pain and cramps, anemia, fatigue, loss of appetite and weight loss, pain and swelling in the joints.
- **Crohn's disease** – a chronic disease that causes diarrhea, fever, sores in the mouth and around the anus, abdominal pain and cramps, anemia, fatigue, loss of appetite and weight loss, pain and swelling in the joints.

## ***Sarcoidosis***

A disease that affects many organs but most commonly the lungs. Common symptoms include fatigue, weight loss, fever, chest pain, and difficulty breathing. It may also affect the skin, joints, and abdomen. Uveitis may involve any portion of the eye and it may lead to blurred vision, red eye, light sensitivity, pain, and floaters. A combination of medicine and surgery is sometimes needed for treatment.

## ***Syphilis***

An infection that can be transmitted through sexual contact. It begins with painless ulcers in the genitals, rectum, or mouth. Months later, it can lead to other symptoms, including uveitis. It can cause anterior or intermediate uveitis that affect one or both eyes.

## ***Systemic lupus erythematosus***

Chronic autoimmune disease that can affect various parts of the body. It can lead to fatigue, weight loss, fever, joint pain and stiffness, rash, and damage to organs such as the kidneys.

## ***Tuberculosis (TB)***

An infection that may be potentially serious and fatal. It is caused by bacteria that is transmitted through the air. TB usually begins with a lung infection and causes fever, chills, weight loss, a cough lasting at least 3 weeks, chest pain when coughing or breathing, and blood upon coughing. In a small number of patients, TB can lead to anterior or posterior uveitis that affects one or both eyes.

## ***Vogt-Koyanagi-Harada syndrome***

A rare cause of uveitis in adults. It usually affects natives in the Canadian population, causing posterior uveitis. Patients may experience light sensitivity, tearing, and blurred vision. Other organs may also be affected, leading to headache, pain around the eyes, stiff neck, vertigo, fever, difficulty hearing, pain and discomfort when hearing, patchy loss of colour on the skin, and decreased or absence of colour in head hair, eyebrows, or eyelashes.







# Complications

**If left untreated, uveitis can cause complications, including:**

- Glaucoma
- Cataracts
- Optic nerve damage
- Retinal detachment
- Permanent vision loss





## Drug treatment options

The goals of treatment are to try to eliminate inflammation, alleviate pain, prevent further tissue damage, and restore or prevent vision loss. Ask your doctor how medications differ and to explain their benefits and side effects.

**Four types of medication are used to manage the symptoms of uveitis:**

- Cycloplegics
- Corticosteroids
- Immunosuppressive agents
- Non-steroidal anti-inflammatory drugs (NSAIDs)

Your doctor may suggest one or a combination of these therapies to reduce your pain and to prevent uveitis from getting worse over time. Whatever your medication, it is very important to take it as prescribed and not to make any change without speaking to your health care team.



**Your doctor will recommend a treatment that is best suited to you, taking into consideration your other medical problems and other medications.**

## **Cycloplegics**

These medications, all given as drops, block nerve impulses to some eye muscles, reducing pain and light sensitivity. They also help prevent further complications.

Some commonly used cycloplegics include homatropine, atropine, cyclopentolate, and mydriacyl.

# Corticosteroids

This group of medications is the most commonly used to reduce the irritation and swelling that occurs in uveitis. Corticosteroids can be taken as eye drops, swallowed as a pill, injected around or into the eye, infused into the blood intravenously, or released into the eye via a surgically-implanted capsule.

Corticosteroid use may produce side effects including stomach ulcers, osteoporosis (bone thinning), diabetes, cataracts, glaucoma, cardiovascular disease, weight gain, fluid retention, and Cushing's syndrome. The dosage, strength, duration of usage, and route of administration all play an important role in whether or not side effects develop.

Some commonly used corticosteroids include prednisolone acetate, prednisolone phosphate, rimexolone, and prednisone (by mouth).

## Immunosuppressive agents

Immunosuppressive agents may be used in uveitis to reduce the irritation and inflammation, particularly in patients who may not tolerate corticosteroid treatment. These agents are usually taken by mouth.

These medications include methotrexate, mycophenolate, azathioprine, cyclosporine, and biologics. Regular blood tests are required when taking some of these agents to monitor for possible side effects.

Side effects from immunosuppressive agents vary from drug to drug and can include a reduced number of blood cells, an increased number of infections, scarring of the lungs, kidney/liver dysfunction, visual disturbances, birth defects, cancers, nausea, vomiting, and diarrhea.

## **Non-steroidal anti-inflammatory drugs (NSAIDs)**

NSAIDs is a group of medications widely used in different areas of medicine. In uveitis, they are used to help reduce the irritation and swelling.

Side effects of NSAIDs include nausea, vomiting, diarrhea, constipation, decreased appetite, dizziness, and headaches.

The most commonly used NSAIDs in Canada are diclofenac, ketorolac tromethamine, and nepafenac, which are taken as drops; and celecoxib, naproxen, and indomethacin, which are taken orally (by mouth).



## **Surgery**

In some cases, uveitis may cause physical damage to the structures within the eye that can only be corrected surgically. Although eye surgery can be risky, advancements in technology have made it easier and safer to operate on various parts of the eye.

## **Alternative medicine**

Although some alternative medicines may have anti-inflammatory properties, they haven't been studied for the treatment of uveitis.

Let your doctor know if you plan on using any alternative medicines or supplements. Some alternative treatments may interact with medications your doctor has prescribed to you, and lead to unwanted effects.



## Help your friends and family help you.

If you are living with a chronic inflammatory illness, it is very important to open the lines of communication with family, friends, and co-workers to help them understand what you're feeling.

Encourage your loved ones to learn about your condition, understand your symptoms better, and even attend appointments with you. There are many sources of reliable information to assist everyone, including libraries, Web sites, blogs, and The Canadian Uveitis Society. You can even give them this booklet to read!





# Your doctor will help you decide what to do next.

We hope you have found this information to be helpful and suggest that you speak to your doctor and the rest of your health care team about the most appropriate treatment for your condition. Don't hesitate to ask questions and get involved in decision-making regarding your uveitis. And keep in mind there are many options available to you, so if one approach doesn't work, another one might.



# Useful Web sites

The Canadian Uveitis Society  
[canadianuveitissociety.com](http://canadianuveitissociety.com)

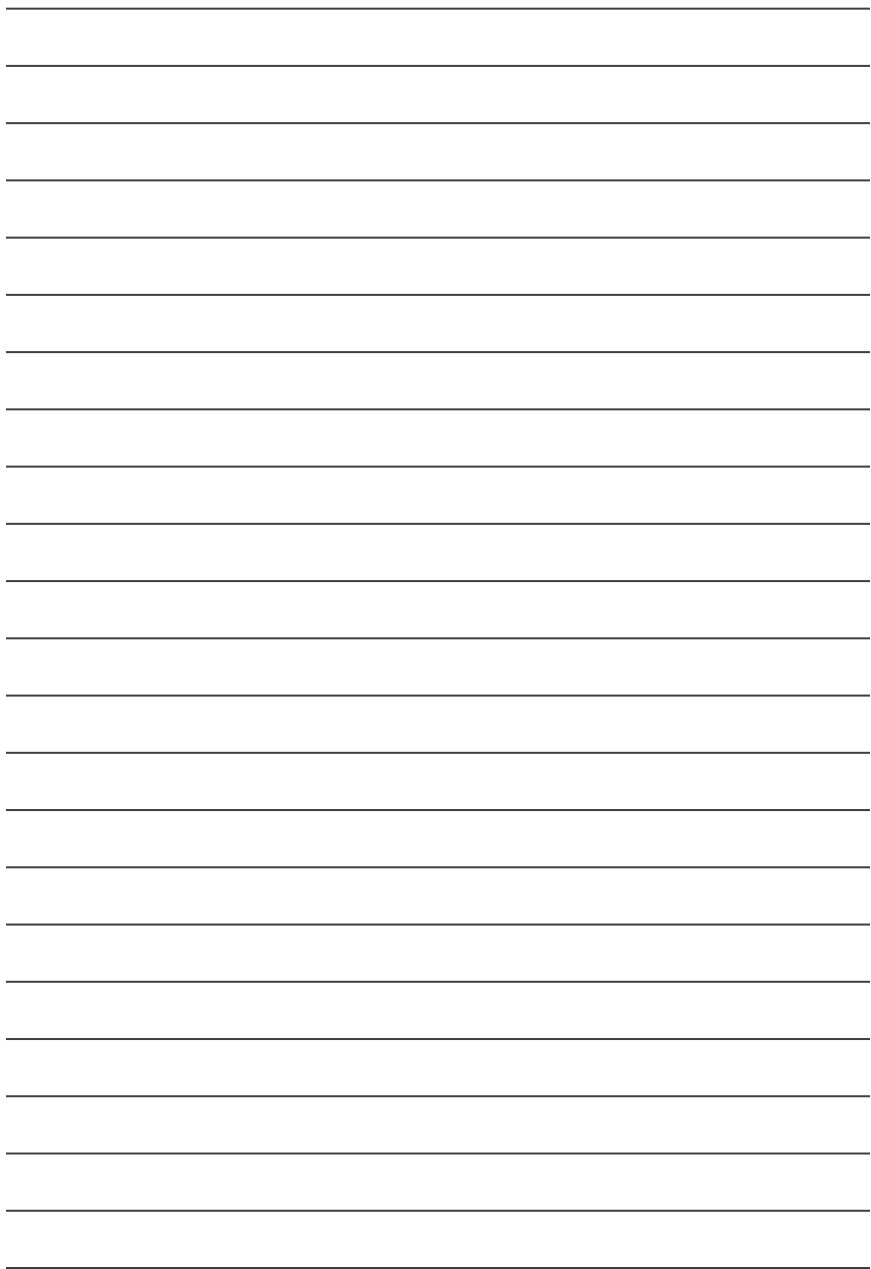
Mayo Clinic  
[mayoclinic.org](http://mayoclinic.org)

WebMD  
[webmd.com](http://webmd.com)

Olivia's Vision  
[oliviasvision.org](http://oliviasvision.org) 



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