

Eye complications in myeloma

Symptoms and complications Infosheet

This Infosheet explains the types of eye complications that myeloma patients can experience, their causes, the signs and symptoms to look out for, and how eye complications are managed.

Eye complications can sometimes occur in myeloma patients. In a recent study, a number of myeloma patients who had received multiple previous treatments had eye problems, which included cataracts, dry eye and blepharitis (sore eyelids).

Eye complications in myeloma patients can have a variety of causes. Most often, they are related to the drugs used to treat myeloma,

or to the fact that myeloma patients are more prone to infections. Sometimes myeloma itself can directly affect the eyes, and you may also have co-existing eye problems such as cataracts. It is useful to be aware of the eye effects that you might experience, and it is important to get any symptoms in the eyes checked out as soon as possible.

What are the causes of eye complications in myeloma?

Eye complications in myeloma can be a result of side effects of myeloma treatments, eye infections, or direct effects of the myeloma.

Side effects of myeloma treatments

Myeloma treatments can sometimes cause side effects involving the eyes. Many of these are uncommon, but it is helpful to be aware of them in case you experience symptoms.

Drugs such as bortezomib (Velcade®) and lenalidomide (Revlimid®), and similar drugs, can sometimes cause side effects such as blurred vision, dry eyes, eye swelling, and conjunctivitis (inflammation of the lining of the eyes). These are most likely to occur during or just after the treatment.

High-dose steroids such as dexamethasone, and combinations of steroids with other myeloma drugs, increase the risk of cataracts.

High-dose steroids can raise the level of sugar in the blood (called hyperglycaemia). This increases the risk of eye complications such as

diabetic retinopathy. This is when high blood sugar levels damage the retina (back of the eye).

High-dose therapy and stem cell transplantation (HDT-SCT) increases the risk of cataracts. This is most often in situations other than myeloma, but a few myeloma patients receiving HDT-SCT do go on to develop cataracts. The cataracts may start to develop many months after the HDT-SCT, so your eyes should be checked regularly by an optician.

HDT-SCT can also cause dry eyes, but this is most likely after allogeneic (donor) SCT, which is less often used in myeloma.



For more information see the [High-dose therapy and autologous stem cell transplantation Infoguide](#) and the [High-dose therapy and allogeneic stem cell transplantation Infosheet](#) from Myeloma UK

Bisphosphonates including zoledronic acid (Zometa®) can sometimes have effects on the eyes, including conjunctivitis and blurred vision.



For more information see the [Bone disease and bisphosphonates Infoguide](#) from Myeloma UK

Belantamab mafodotin (Blenrep[®]), a new drug that some patients with relapsed myeloma may be given, can cause specific eye complications. Many patients treated with the drug have changes to their cornea (surface of the eye) called keratopathy. In some patients this can cause symptoms such as blurred vision, dry eyes, or a reduction in how well they can see. In most cases these side effects seem to be temporary, but they can last for some time after treatment. Patients are given eye drops to protect against dry eyes.



For more information see the **Belantamab mafodotin Horizons Infosheet** from Myeloma UK

Eye infections

Both myeloma itself, and the drugs used to treat it, can increase the risk of infections, including eye infections. This is because they reduce the number of infection-fighting white blood cells that are produced by the bone marrow.

Myeloma treatments that can increase the risk of infection include:

- Thalidomide
- Lenalidomide

- Bortezomib
- Daratumumab (Darzalex[®])
- Chemotherapy drugs such as melphalan
- High-dose steroids

Myeloma patients are at increased risk of viral infections. An example is the varicella-zoster virus, which causes shingles, and herpes simplex-1 (the virus that causes cold sores). You can only develop shingles if you have previously had chicken pox, and it is not contagious. These infections are more likely to occur in people who are older or who have a weakened immune system. Either of these infections can affect the eyes when the virus is re-activated.

Some myeloma drugs can increase the risk of reactivation of varicella-zoster, including bortezomib, high-dose steroids, lenalidomide and thalidomide. Patients are often given an anti-viral drug (usually aciclovir) at the start of myeloma treatments, to reduce the risk of viral infections. However, if you have active shingles you would be given a different dose of aciclovir, and should ask your healthcare team to advise you in this case.

There is a vaccine against shingles, but this is not recommended for myeloma patients, because it is a live vaccine.

Both these types of viral infection can affect your vision if left untreated, so you should get any symptoms looked at as soon as possible.



For more information see the **Infection and myeloma Infosheet** and the **Vaccines and myeloma Infosheet** from Myeloma UK

Direct effects of myeloma on the eyes

Uncommonly, myeloma itself may have direct effects on the eye.

In some cases, large amounts of paraprotein (the abnormal antibody produced by myeloma cells) can make the blood thicker. This is called hyperviscosity. This can sometimes reduce or even block the blood supply to the eye and cause loss of vision. This is only likely to happen when myeloma is active and if paraprotein levels are extremely high.

Sometimes, changes in the blood chemistry caused by myeloma cells can make the blood more likely to

clot. This can rarely cause clots in the blood supply to the eyes, resulting in sudden loss of vision.

In rare cases, a localised build-up of myeloma cells called a plasmacytoma can grow near the eye area, causing effects like vision problems (reduced vision or double vision) or pain.

Occasionally, paraprotein can deposit in the eye area and cause symptoms.

Co-existing issues affecting the eyes

You may have other medical issues that increase the risk of eye problems, alongside your myeloma. This could include diabetes, high blood pressure, thyroid issues, or cataracts. If you have any of these medical issues, you may be at greater risk of eye complications caused by myeloma and its treatment.

Symptoms of eye complications

It is important to get any eye symptoms you notice checked promptly. Sudden changes in vision, such as loss of vision or seeing double, should be treated as an emergency and you should get medical attention urgently.

Let your healthcare team know if you experience any of the following symptoms:

- Blurred or double vision, or not able to see as well as usual
- Headaches that are persistent, new, or different for you
- One or both eyes swollen or protruding (appearing further forward than normal)
- Pain, redness or irritation
- Discharge from your eyes or watery eyes
- Dry eyes

Treatment of eye complications in myeloma

Treatment of your eye complication will depend on the cause of the problem. In some cases, your healthcare team may want to refer you to an ophthalmologist (hospital eye specialist).

If the complication is due to the myeloma itself, part of the treatment will be getting the myeloma under control and the paraprotein levels down.

If your myeloma treatment is causing eye complications, a different drug may be tried which has different side effects.

Some eye problems may be managed with antibiotics or antiviral treatments, or with eye drops to help the symptoms. If you feel that eye drops would help, check with your healthcare team before using any, and they will advise what drops to use. In some cases you may be given local radiation to remove myeloma cells affecting the eye area.

For more information see the **Radiotherapy Infosheet** from Myeloma UK



Self-management tips

These tips will help you avoid problems caused by eye complications:

- Maintain good hygiene by washing your hands frequently, not rubbing your eyes and using separate towels from anyone in your household who has an infection
- Make sure you have regular checks at the optician (whether or not you wear glasses). Mention to your optician that you have myeloma, so that they are aware of possible problems. You may want to share this Infosheet with your optician

- If you have any existing eye problems such as cataracts or diabetic retinopathy, you should make sure these are being checked regularly as well, because your myeloma or its treatment may worsen them
- In some circumstances you must tell the DVLA (Driver and Vehicle Licensing Agency) about your eye problems. Check details at www.gov.uk/driving-eyesight-rules
- Sudden changes in vision such as double vision are potentially serious and you should get urgent medical attention

Summary

- Eye complications can sometimes occur in myeloma, although they are not common
- They can be a side effect of myeloma drugs
- Myeloma patients are also more prone to infections, including eye infections
- Sometimes myeloma cells, or the paraprotein they produce, can affect the eyes directly
- Eye complications are treated in various ways depending on the cause
- If you experience eye symptoms you should get them checked out as soon as possible

About this Infosheet

The information in this Infosheet is not meant to replace the advice of your medical team. They are the people to ask if you have questions about your individual situation.

For a list of references used to develop our resources, visit www.myeloma.org.uk/references

We value your feedback about our patient information.

For a short online survey go to myeloma.org.uk/pifeedback or email comments to patientinfo@myeloma.org.uk

Other information available from Myeloma UK

Myeloma UK has a range of publications available covering all areas of myeloma, its treatment and management, and related conditions. Download or order them from myeloma.org.uk/publications

To talk to one of our Myeloma Information Specialists about any aspect of myeloma, call our Myeloma Infoline on **0800 980 3332** or **1800 937 773** from Ireland.

The Infoline is open Monday–Friday, 9am–5pm and is free to phone from anywhere in the UK and Ireland.

Information and support about myeloma is also available round the clock at myeloma.org.uk



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We're here for everything a diagnosis of myeloma brings

Get in touch to find out more about how we can support you

Call the Myeloma Infoline on

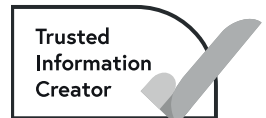
 **0800 980 3332**

Email Ask the Nurse at

 **AskTheNurse@myeloma.org.uk**

Visit our website at

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