

## Part 2: What should I know when I start treatment for wet AMD?

# How is wet age-related macular degeneration (AMD) treated?



The essential series to guide and support you through your wet AMD treatment.



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# 1. How is wet AMD treated?

There are different treatments options for wet age-related macular degeneration (AMD), including injections into the eye (intravitreal injections), laser treatment, and surgery. Treatment with injections is the most common and has shown the best results.<sup>1,2</sup>

- With intravitreal injections, factors that affect or mediate the formation of abnormal blood vessels can be suppressed, and in turn the accumulation of fluid caused by the bleeding and leakage of these new blood vessels is prevented, thereby improving the symptoms.<sup>3-5</sup>
- The aim of the injection treatment is to preserve your remaining vision; however, it cannot repair all existing damage. It is therefore essential to start your treatment as soon as possible. At the beginning of treatment, vision loss can be halted quickly, and some patients may even experience an improvement in vision, but this is not the rule.<sup>4-7</sup>
- Your eye will continue to produce the factors causing the damage, so ongoing regular treatment to prevent this is required to stabilize your vision in the long term.<sup>8,9</sup>
- For some patients over time, your vision may gradually worsen despite keeping up with treatment, but this will be happening much more slowly than if you were not receiving treatment at all.<sup>3</sup>
- It is important to understand that the injections halt the disease for a period of time, but they do not completely cure the disease, so your vision can change over time.

- Other types of treatment are available for some forms of wet AMD. As an example, certain types of wet AMD do not respond well to the injections alone. If this is the case, you may have to have a dye test to see if you have polypoidal choroidal vasculopathy (PCV), a disease characterized by the formation of abnormal blood vessels in the choroid (the layer of blood vessels and connective tissue between the retina and the white of the eye).<sup>10</sup>
  - If you do have PCV, you may be offered photodynamic therapy (PDT), if available. This is a type of “cold” laser that uses a drug called verteporfin, which is not available in all countries.<sup>11</sup>
- Laser photocoagulation; a type of laser surgery for the eyes is also used to treat wet AMD in certain patients where the ophthalmologist believes this would be beneficial. It works by focusing an intense beam of light on the abnormal blood vessels under the macula creating burns in the retinal tissue, thereby sealing off the leaky blood vessels that grow in the eye. However, laser photocoagulation also burns healthy tissue along with treating the leaky blood vessels, so it is rarely used.<sup>12,13</sup>
- Your ophthalmologist will explain and discuss the available treatment options with you.

## 2. How long will treatment be required for?

As wet AMD is a long-term disease, injections must be repeated regularly to make sure that there is enough treatment administered to continue suppressing the factors causing the damage, as your eyes will keep on producing these.<sup>8,9</sup> From a medical point of view, there is no limit to the number of injections you can receive and as long as your ophthalmologist judges that you will benefit, you can continue with regular treatment indefinitely.<sup>5</sup> However, your local social security and/or insurance system may influence the cost, choice of treatment, and frequency, and therefore, your ophthalmologist will discuss a treatment plan with you. If you do interrupt or stop the treatment plan, your wet AMD will likely progress and your vision may get worse.<sup>5,6,14</sup> It is therefore important to continue receiving treatment if your doctor advises you to.



## Example of a treatment plan

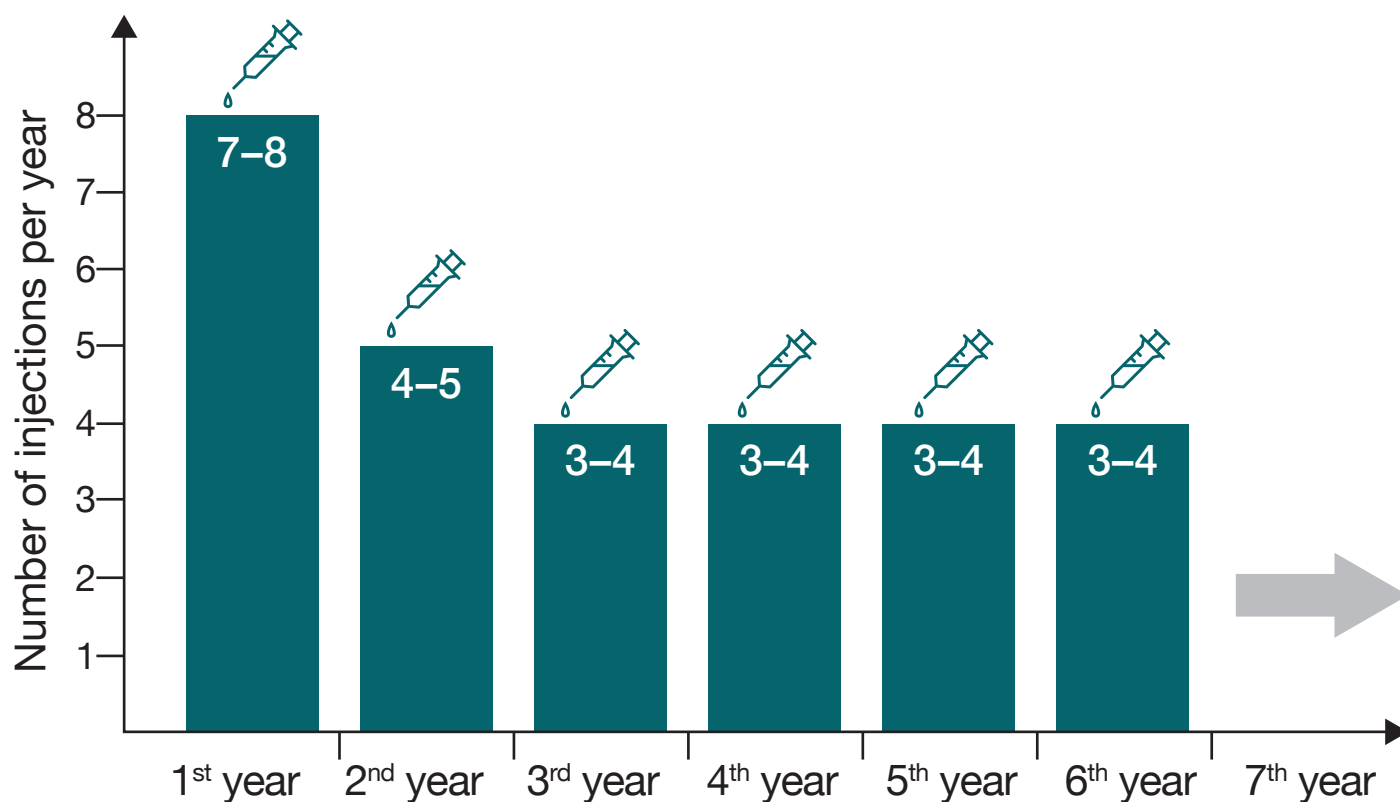


Illustration adapted from VisusVital. Motivationsbroschüre. Gemeinsam zum Behandlungserfolg. 2023.

This is an example of what your treatment plan could look like. Most treatments require a loading phase during which you will initially receive treatment once a month, usually for 3 months. After this, the frequency that you may require injections (the treatment interval) depends on how you respond to treatment and the dose regimen that you are on. For the subsequent treatments, the treatment intervals can often be extended. Regardless, after the first year, the number of injections that you will receive per year will most likely reduce.<sup>3,7,16-18</sup>

### 3. How often will I need to receive treatment?

Treatment with injections needs to be repeated regularly and the time between each injection is based on your vision and exam results. Your doctor may choose from a variety of treatment approaches based on your individual response to treatment and standard practice within the clinic.

**Loading phase:** Most patients will typically undergo what is called the “loading phase” when starting treatment. During the loading phase, a single injection is usually given once a month for the first 3 months. This allows enough medication to stabilize your condition and for your doctor to assess how your eye is responding to the treatment, and how your treatment should continue, including how often, after the loading phase.<sup>4</sup> After the loading phase, your doctor will either extend or maintain injection intervals according to your test results, but remember this is not the cure, so you will need to keep checking your eyes, and follow the doctors recommendations.

## 4. What would happen if I did not receive treatment?

Wet AMD is a long-term disease that will continue to progress and get worse without treatment. Although wet AMD hardly ever causes complete blindness, it can reduce the central vision to the point where it is only possible to see outlines or movement, which may greatly interfere with your daily life.<sup>3,5,19</sup> Starting treatment soon after experiencing the first symptoms of vision loss increases the chances of your vision being preserved or even improved.<sup>20–22</sup> The longer the treatment for wet AMD is delayed, the more difficult it becomes to maintain or restore your vision, and it could reach the point where treatment can no longer help.<sup>3,6,21,22</sup> Interrupting or stopping the treatment could result in the recurrence of bleeding and swelling in the retina, resulting in decreased visual, especially in the reading vision.<sup>5,6,14</sup>





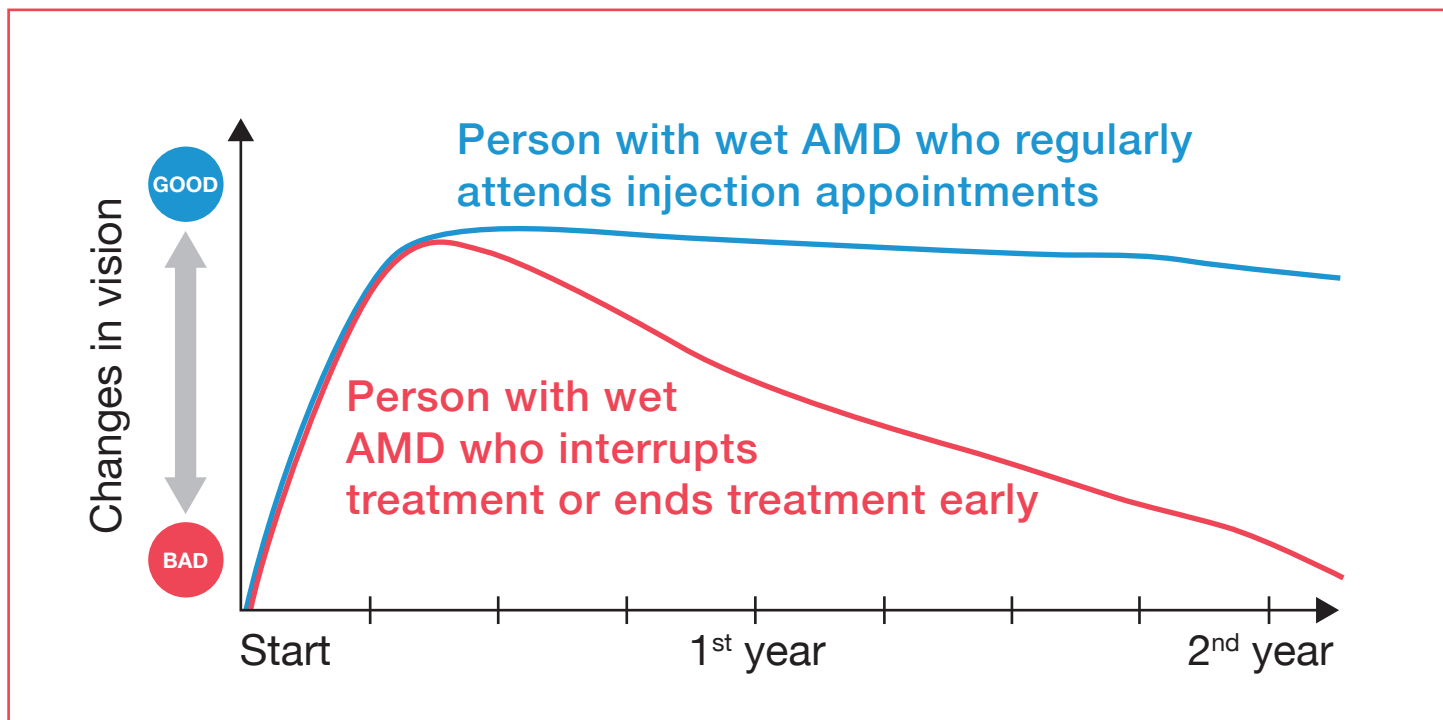


Illustration adapted from VisusVital. Motivationsbroschüre. Gemeinsam zum Behandlungserfolg. 2023.

Starting treatment soon after experiencing the first symptoms of vision loss increases the chance of your vision being preserved or even improved. Interrupting or stopping the treatment could result in recurrence of bleeding and swelling of new blood vessels, and may result in decreased visual acuity or extended areas of low vision.<sup>6,14,20–22</sup>

## 5. What can I expect during the injection procedure?

Injections are carried out in sterile conditions to avoid infections (this will not necessarily be in an operating room; it can be in the clinic in a specific area). The injections would be given by a qualified doctor or other healthcare professional who has received extensive training in this procedure to make sure that you receive the **best care possible**.

- You will be awake for the procedure that lasts approximately 5 minutes, including washing of your eye and preparations. The injection itself should only **last 5 seconds** or so.
- Before the injection, you may be given a series of eye drops to allow dilation of your eye and to anesthetize your eye. You may also be given a local anesthetic injection. Your eye will be sterilized with an antibacterial solution (iodine) or similar to reduce the risk of infection.
  - The antibacterial solution may sting a little; however, it is **important to lower your risk of infection**.
  - If it stings too much, you can ask for additional anesthetic drops and try to keep your eye closed after the numbing drops are applied, as this should help.
- A surgical cover may be placed over you, revealing only your eye, and a small clip is used to help keep your eye open during the procedure; you should not feel any discomfort when the clip is applied.
- The needle used for the injection is very small and its size and length have been chosen carefully to make sure it does not cause damage to the eye.

- The injection will be given from an angle so **you will not see the needle coming directly towards you**; you will be asked to look either to the side or upwards.
- You might feel slight pressure on the eye when the needle is injected, but **you should not experience pain** due to the anesthetic. You may be able to see the treatment once it enters into your eye, this is a completely normal experience. It is important that you do not move during this part of the procedure to avoid causing damage to the internal structures in your eye.
- You may receive antibacterial eye drops, or a gel may be applied to your eye after the injection, to lower your risk of infection.
- Your ophthalmologist will discuss possible side effects that may occur as part of the injection treatment with you.



## 6. What can I expect to experience after my injection?

Following your injection, you may experience some temporary changes to your vision. This is perfectly normal and typically wears off within a couple of days. Due to the dilation of your eyes, it is recommended that you do not drive, ride your bike, or use machinery immediately after your injection, and consider asking a friend, neighbor, or family member to drive you to your appointments. If it is not possible to be accompanied by a friend or relative, there are other options for coming to the clinic, such as taxis, transportation services, and public transport.

After the injection, you may experience the following:<sup>16–18</sup>

- Your eye may be a little sore after the anesthetic wears off.
- You may experience a slight bleed over the white of your eye (bloodshot eye). You should not worry about this; it will resolve over time.
- The sight in your treated eye may be blurry because of the treatment, but this should wear off within a day.
- You may also have floaters (small, dark shapes that move around in your field of vision) for a few days following the injection, but this does not always happen to everyone.
- You may notice a small black circle in the lower part of your vision. This is caused by a small air bubble, which will become smaller and disappear over a couple of weeks.
- Your eye may produce excess tears after the injection, and it may be slightly red or irritated. This usually gets better after a few days.

- Occasionally an injection in the eye can cause the pressure in your eye to rise a little, but it should not cause you any pain or change your vision. If you are worried about your eye after the injection or feel unwell, then contact your ophthalmologist.

**If your eye becomes very painful or very red and hot to touch, or if you notice any sudden worsening of your vision, then you should contact your ophthalmologist as soon as possible, do not wait until your next appointment.**



## 7. What can I do to feel more comfortable after my injection?

You may experience some level of discomfort following treatment; however, there are certain actions you can take to make you feel more comfortable after your injection. In general, these are associated with reducing the risk of infection and avoiding potential complications.

### **Before your treatment, these actions include:**

- Typically taking a low-grade painkiller an hour before your appointment and again a few hours post-injection will help to minimize any pain. It is important to discuss with your ophthalmologist if this is an appropriate approach for you to take.
- Letting your ophthalmologist know if you:
  - Have an infection in or around your eye, or if you have pain or redness in your eyes.
  - Have ever had any allergic reactions, such as itching or redness, to a medication.
  - Are currently taking any other medicines (prescription and/or over-the-counter medicines).
  - Have glaucoma, hypertension, or diabetes, or if you have ever had a stroke or heart attack (especially if it occurred in the previous 6 months).

### **During your treatment, these actions include:**

- Letting your ophthalmologist know if you experience any problems or if you think you are having an allergic reaction during the procedure.

- Staying quiet during your injection procedure, except when necessary, to reduce the risk of infection from bacteria normally present in the mouth.

This is why staff in the injection room will wear face masks during the procedure.

**After your treatment, these actions include:**

- Investing in adhesive cotton-eye patches, typically sold at any pharmacy, which you can use after the procedure, to keep your eye closed and protect your eye from light. Your doctor may recommend alternating between wearing the patch for an hour and then removing it for an hour, to allow your eyes to become desensitized to the light gradually.
- Using fresh saline solution or gel drops to provide moisture, if your eye is irritated. Consult with your ophthalmologist on the appropriate saline solution or gel drops to use.
- Taking pain medication according to your ophthalmologist's instructions.
- Using eye drops, if prescribed, for the duration prescribed after the injection, to prevent any infections, if recommended by the doctor.
- Not planning to do any work, shopping, or any high activity for the remainder of the day. It is important to let your body rest, in a low-light setting, immediately after the injection.
- Avoid rubbing your eyes, washing your face, bathing, or washing your hair for 1 day, and swimming for 2–3 days following each injection, to prevent infection.
- Informing your ophthalmologist as soon as possible if you develop any signs or symptoms of an infection in the eye, or any other severe side effects described by your doctor.
- Any regular drops that you put in the eye can be continued but need to be from a fresh unopened bottle after your injection.

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# Where to find extra information and support?

## Healthcare professional contact information

Use this space to note the details of your clinic, your ophthalmologist or nurse.

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## Notes

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The Barometer Program is managed by clinical leaders in ophthalmology as well as representatives from the International Federation on Aging (IFA), International Agency for the Prevention of Blindness (IAPB) and Bayer. The activities of the Barometer Program are funded and facilitated by Bayer where the scientists and representatives from IFA and IAPB retain decision authority to the research scope, methods, analysis of findings and dissemination of the outputs of the Barometer Program.

## **Feel free to ask your ophthalmologist for other parts of this series.**

- What is wet AMD?
- What does a wet AMD treatment plan look like?
- How is wet AMD treated over time?
- What does long-term management of wet AMD mean?



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