

# Medicine and Yoga

**Q**uestion: Can people with age-related macular degeneration practice inverted postures?

Loren M. Fishman, MD responds:

**A**ge-related macular degeneration (AMD) affects the center of one's visual field, distorting and partially obscuring what one would otherwise see there. It may make vertical lines wavy. AMD comes in two forms, commonly known as "dry" (non-neovascular) and "wet" (neovascular).

Fortunately, 90% of AMD cases are dry AMD, which is less serious and progresses much more gradually, and not as severely, as wet AMD. In dry AMD, unwanted pigment called drusen obscures central vision, and the blood vessels that serve the retina become stiff and narrow, reducing circulation to the light-sensitive cells at the back of the eyes.

In wet AMD, new blood vessels form at the back of the eye. Instead of improving blood supply to the retina, these new vessels crowd out light-sensitive cells. These vessels are also fragile and easily broken, creating very small hemorrhages and swelling.

The 10% of AMD sufferers who have the wet type are well-advised to stay away from inverted postures, like headstand and even standing forward bends. In inversions, there is greater pressure directly from the column of arterial blood that reaches from the inverted heart to the eye. Also, there are no valves in the venous network of the head and neck, compromising venous return and making it more likely that blood pressure in the vessels to the eye will increase.

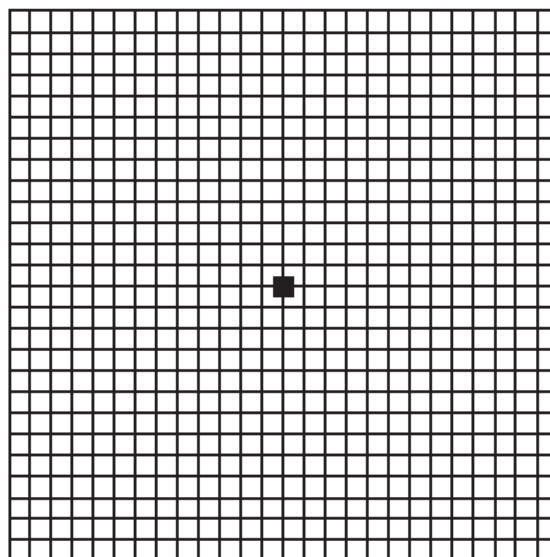
In dry AMD, the case is not so clear. Because the dry form of AMD is due to a decrease in the vascular supply, it might be that Yoga, and headstand in particular, would be good for AMD. Inversions might raise the perfusion pressure and dilate some of those blood vessels that serve the retina, thereby reversing the course of the gradual vascular insufficiency.

However, I've learned not to make clinical predictions on the basis of what one might suppose. This is especially true when a person's vision is at stake. Anyone who has been practicing inversions should consult an ophthalmologist about the rate of deterioration. Someone who recognizes the risk of inversions might enlist the services of a trusted ophthalmologist to test as carefully as possible every month, and then compare, as soon as possible, their progression with the 'normal' progression of the condition. I have never seen careful studies of the average progression of the disease, with standard deviations, but they may exist.

If someone would like to do such a study, the research and experience of an ophthalmologist, along with careful Yoga instruction, is all that is needed. On the one hand, it's uncharted territory, and therefore risky. On the other hand, if it should prove to reduce the slow sweep of the dry form of AMD, it would be a low-cost aid to the increasing numbers of the aging population worldwide. One reasonable, and less risky, way to begin research in this area would be to compare the incidence of dry macular degeneration in long-time head-standing Yogis with the general population.

Here is a standard way to check out your own vision:

Using your glasses and a reasonably bright light, look at an Amsler grid (see below) from about 15 inches away. Cover one eye, and look directly at the central dot.



If you see wavy lines, note missing lines, or other distortions, talk to your doctor. If you already know that you have AMD, this grid may be used to check your visual status, and to assure yourself that things have or have not changed.

Nutrition may prevent AMD and limit its progression. Fruits and dark green leafy vegetables seem to be the most promising foods. Exercise is also good. Things to avoid are the usual list, with tobacco and ultraviolet radiation at the top. So wear the shades to be cool, but don't smoke. ☐

#### **For more information about AMD:**

American Macular Degeneration Foundation [www.macular.org](http://www.macular.org)

Macular Degeneration Partnership [www.amd.org](http://www.amd.org)

Macular Degeneration Foundation [www.eyesight.org](http://www.eyesight.org)

*This article is not intended to provide medical advice and is for educational purposes only.*

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