A
g-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, compromises 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.

![Amsler Grid](image)

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

**Loren M. Fishman, MD responds:**
Age-related macular degeneration (AMD) is a problem with your retina. It happens when a part of the retina called the macula is damaged. Dry AMD is when parts of the macula get thinner with age and tiny clumps of protein called drusen grow. You slowly lose central vision. There is no way to treat dry AMD yet. Wet AMD. This form is less common but much more serious. Wet AMD is when new, abnormal blood vessels grow under the retina. These vessels may leak blood or other fluids, causing scarring of the macula. Macular Degeneration is the leading cause of vision loss, more than cataracts and glaucoma combined. It is considered an incurable eye disease, but it is treatable. When it is working properly, the macula collects highly detailed images at the center of the field of vision and sends them up the optic nerve to the brain, which interprets them as sight. When the cells of the macula deteriorate, images are not received correctly. In early stages, macular degeneration does not affect vision. Later, if the disease progresses, people experience wavy or blurred vision, and, if the condition continues to worsen, central vision may be completely lost. People with very advanced macular degeneration are considered legally blind. Because it affects your macula, you may still have your side (peripheral) vision if you have AMD. It may cause a sudden or gradual loss of your central vision. AMD comes in two main subtypes: dry type and wet type. Abnormal blood vessel growth is present in only the wet type. Photodynamic therapy is recommended only as a possible therapy for the wet type of the disease. What are the risks of photodynamic therapy for age-related macular degeneration? All procedures have risks. The risks of this procedure include