



## THE MAGNIFIER

Macular Degeneration Foundation  
P.O. Box 531313  
Henderson, Nevada 89053

FREE MATTER FOR THE BLIND

Macular  
Degeneration  
Foundation

# The Magnifier

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### Book on CD

A recorded copy of "Macular Degeneration, "The Complete Guide to Saving and Maximizing Your Sight", by Lylas G Mogk, M.D. is now available on CD.

Sight Into Sound is making it available upon request.

Call 713-622-2767 or email [carol.pierce@sightintosound.org](mailto:carol.pierce@sightintosound.org)

### Free DVD

Hallucinations: Am I going Crazy?

AMD and Charles Bonnet Syndrome. DVD available on request with detailed information! Call: 888-633-3937



## All About Magnifiers

by Joe Fontenot MD

Almost all people with macular degeneration do see better if things are larger or closer, and magnifiers make things seem larger and closer. It is rare to find a person with macular degeneration who does not benefit from some type of magnification.

What kind of magnifier should I have? How many do I need? How strong should they be? How much do they cost? What is the best way to buy a magnifier?

There are many different types of magnifiers. They vary from simple, inexpensive weak over-the-counter magnifiers to expensive electronic magnifiers. A magnifier may be portable, able to be carried in a purse or pocket, or a heavy "desktop" weighing 50 pounds.

The magnifier(s) best for you depends on your level and type of vision loss and your individual activities and needs. Almost all people with macular degeneration respond well to magnification, and find it essential to daily activities.

Basically, magnifiers are optical (relying on the magnifying properties of glass or plastic lens) or electronic, with a video camera projecting an enlarged image onto a monitor screen.

Most people need at least 2 magnifiers - one at home and one portable, allowing mobility and independence. Many benefit from multiple magnifiers, depending on the variety of their needs and activities.

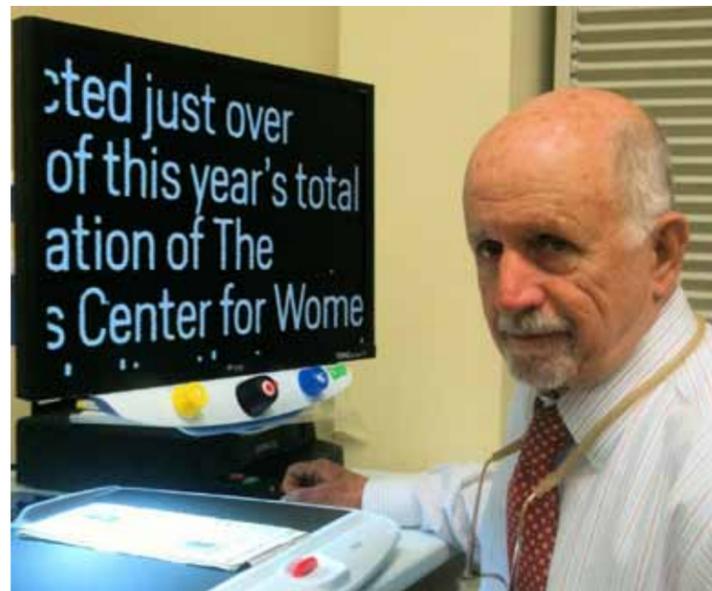
### Clinical Trial Information

Natl Eye Institute  
800-411-1222 or  
[www.nei.nih.gov](http://www.nei.nih.gov)

Clinical trials have guidelines called "inclusion" and "exclusion" criteria. These criteria (age, gender, type and stage of disease, etc.) keep participants safe and ensure researchers will be able to answer the questions they plan to study.

This 90th issue of The Magnifier is dedicated entirely to the selection, purchase and use of Magnifiers for those with AMD.

The author, **Dr. Joe Fontenot**, is a Certified Low Vision Specialist and Medical Director of CSVr (Community Services for Vision Rehabilitation) in Mobile, Alabama. **Tel: 1-251-476-4744** or **http://www.csvr.org/**



**Dr. Joe Fontenot**

## Resource Consultant

For assistance identifying agencies in a specific area, call

**Dan Roberts**  
Resource Consultant

toll free at:  
**1-888-866-6148**

## Resources

NFB Newline  
866-504-7300

Choice Magazine  
Listening  
888-724-6423

National Library  
Service  
888-657-7273  
(Books on Tape)

Free Low Vision  
Catalogs and  
Independent  
Living Catalog  
800-537-2118

Maxi Aids  
800-522-6294

Enhanced Vision  
888-811-3161

EyeSmart  
<http://www.get-eyesmart.org/eyesmart>

## Optical Magnifiers

Optical magnifiers are simpler, less expensive and more durable than electronic magnifiers, and do not need an external power source. However, they may not be strong enough for those with severe vision loss and do not have as large a viewing area. The level of magnification is fixed and can not be changed, and usually is from 2X to 12X. At the higher levels, only part of a word may be visible. Optical magnifiers may have a light powered by batteries or may be non-illuminated and usually cost between \$10 and \$150, depending on quality, size and weather they are illuminated or not.

### Common Types of Optical Magnifiers

The most common types of optical magnifiers are flat hand-held, stand and telescopic. They may be illuminated, usually by battery power,

or without a light. They may even be simply loose lens, as with a pendant magnifier pictured below.

### Flat Hand-Held

The most common type of optical magnifier is the simple flat hand-held magnifier, with or without illumination. Its use is almost instinctive for most people. It is sometimes difficult to use if a person has a tremor or poor eye-hand coordination.

### Stand Magnifiers

Stand magnifiers have a housing or stand that keeps the lens at a set distance from the surface they are placed on, allowing perfect focus. They are usually illuminated. Unlike the flat hand held magnifiers, they do not have to be continually held and adjusted, and are easier for people with a tremor, hand weakness or poor eye-hand coordination to use.

### Telescopic

Telescopes provide an enlarged image of something that is distant, making it appear closer. For people with low vision, the ones commonly used are the simple and inexpensive monocular hand-held, binoculars, and frame mounted or "biopic" telescopes that require prescription by an Optometrist and custom fitting.



**Pendant Magnifier**

## How Should I Buy Magnifiers?

The ideal way to buy a magnifier is to have an evaluation at a comprehensive low vision rehabilitation clinic by a low vision specialist, either an Ophthalmologist or Optometrist and follow their suggestions. They would be able to direct you to the magnifiers best for you. This would greatly reduce the chance of you buying magnifiers that do not fit your needs and will make repeated purchases of magnifiers less likely. Magnifiers can be bought through catalogues or online. Be sure, if you are buying sight unseen, to get a 30 day return policy, even if it costs a few dollars extra.

It is also important to learn how to use any magnifiers properly. This should be done prior to purchasing, and obtain additional instructions and training as necessary.

The Good News! ... Almost all with macular degeneration will be able to read and function much better with proper magnification. A great variety of magnifiers are available, and the cost of electronic magnifiers is lower than ever. Magnification programs are now available for common hand-held "smart phones" and devices like the I-pad.

Yogi Berra said "It's hard to predict what's going to happen, especially in the future". But, considering all the developments in magnifiers in the last 30 years, it's almost certain that magnifiers, both optical and electronic, will get better and better, making life easier for those with impaired vision.

## We Appreciate Your Support

### Donations

The Macular Degeneration Foundation, Inc. is a tax-exempt, non-profit organization.

Please visit our website at [eyesight.org](http://eyesight.org) to make a tax deductible donation. Checks may be mailed to:

Macular Degeneration Foundation, Inc.,  
P.O. Box 531313,  
Henderson, NV 89053

Call: 888-633-3937 (USA)  
Call: 702-450-2908 (Intl)  
Email: [liz@eyesight.org](mailto:liz@eyesight.org)

**Disclaimer** - Articles in the Magnifier are for information only and are not an endorsement by the Macular Degeneration Foundation editorial staff.

## Organizations That Can Help

National Eye Institute  
800-411-1222  
[www.nei.nih.gov](http://www.nei.nih.gov)

AMD Alliance  
[amdalliance.org](http://amdalliance.org)  
416-486-2500  
x-7505

Association for Macular Diseases  
212-605-3719  
[macula.org](http://macula.org)

Foundation Fighting Blindness  
888-394-3937  
[blindness.org](http://blindness.org)

MD Partnership  
888-430-9898  
[amd.org](http://amd.org)

Prevent Blindness America  
800-331-2020  
[preventblindness.org](http://preventblindness.org)

Macula Research Foundation  
610-668-6705  
[mvrf.org](http://mvrf.org)

MD Support  
816-761-7080  
[Mdsupport.org](http://Mdsupport.org)

EARS  
Free Tapes to live life with confidence and dignity.  
800-843-6816

## Definitions

**Ophthalmologist** a practitioner in the medical science of surgery and care of the eye and its related structures. An M.D. degree is required.

**Retina specialist** a medical doctor trained as an ophthalmologist, who has received additional training in diseases and surgery of the retina and vitreous.

**Optometrist** a degreed (O.D.), independent, primary health care provider skilled in the co-management of eye health and vision care, including examination, diagnosis, treatment, management of diseases/disorders, prescription of eyeglasses/contact lenses, and provision of low vision aids and therapy.

**Optician** a person who designs or manufactures ophthalmic appliances or optical instruments ("ophthalmic optician") or deals in prescriptions ("dispensing optician").

## How Strong Should My Magnifiers Be?

**The amount of magnification needed depends on, among other things:**

- \* The severity and type of your vision loss

- \* The size of what you are trying to see-as, newsprint, large print, a thermostat setting, etc.

- \* The amount of lighting available

- \* If you are going to use the magnifier for short "spot" reading or for prolonged sustained reading

In short, it depends on your own individual abilities and needs.

**Points to Remember About Optical Magnifiers**

- \* Bigger may not be better for you. The larger a hand-

held magnifier is, the weaker it is. The field of view is larger, and it is easier to use, but, generally speaking, the smaller an optical magnifier is, the stronger it is.

- \* Light is critical for most people with macular degeneration, and an illuminated magnifier maybe preferable. Be sure you know how to change the batteries, and always turn off when not using.

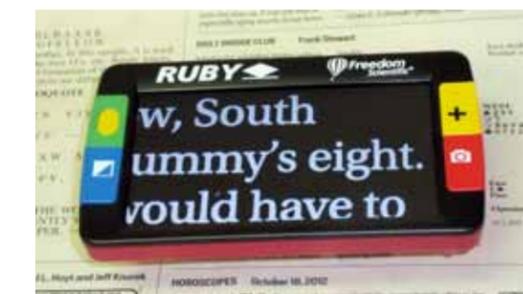
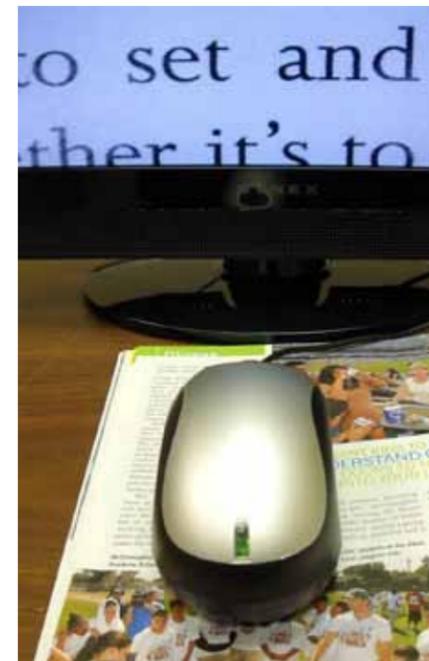
- \* Keep it clean. A zip lock bag makes a good cover, keeping out dust and grease.

- \* You should not buy a magnifier without trying it out first. If there is any doubt about it, you should be allowed to use it at home on a trial basis before making final purchase. Many people end up with

a collection of magnifiers that they do not use because of not being able to try out the device before purchasing.

- \* If you do buy magnifiers sight unseen from a catalog or over the internet, negotiate a 2 week or 30 day return agreement, even if you have to pay a few dollars extra.

- \* And remember that using a magnifier will not weaken or hurt your eyes. To the contrary, it is better for you to use your eyes than not. This is especially true of reading. If you do not read for months or years, your ability to read diminishes. It's the old "If you don't use it, you lose it".



## The 'Eye-Health Diet' Optometry Today

To maintain a 'healthy eye,' researchers advise that people should try to eat five portions of fruits and vegetables a day, and maintain a low-fat diet.

A diet high in fat and cholesterol can lead to a build-up of fatty deposits in the blood vessels under the macula, increasing the risk for age-related macular degeneration (AMD).

## Are You Missing Out on Benefits?

April Issue of AARP by Joan Rattner Hellman

If you're struggling to pay for health care, food, or utilities, help may be closer than you realize.

Older Americans miss out on more than \$20 billion worth of benefits every year. A nationwide campaign launched by the National Council on Aging and the National Association of Area Agencies on Aging aims to help older adults learn about two easily accessed resources that can connect them to needed support.

BenefitsCheckUp (benefitscheckup.org)

Eldercare Locator (1-800-677-1116 or eldercare.gov)

## Electronic Magnifiers

Electronic magnifiers, the closed circuit television magnifiers (CCTVs) were first produced commercially in the 1960s, providing great magnification for the visually impaired. CCTVs have, like all electronic products, improved steadily in capability and variety and become more affordable. Basically, a video camera projects an electronically enlarged image onto a monitor screen. The monitor may be a standard television set.

### Standard desktop CCTV

The standard desktop CCTV is the workhorse of the low vision electronic magnification world. Monitors are usually 17 to 24 inches in size, with the total unit weighing 30 to 50 pounds. The large size of the monitor, while making the system less portable, allows greatly enlarged words or images to fit onto the screen. Almost all people with macular degeneration, even if advanced or severe, can read relatively well using a desktop CCTV. All now have normal color, black-on-white and white-on-black viewing modes and many have various other color combinations, freeze frame, split screen and other options. With the user in a normal sitting position, CCTVs are easy to use and comfortable. The large space (about 8 to 10 inches) between the camera and the moveable tray below allows writing, placing objects, doing

handicrafts and such. Desktop CCTVs are durable and last much longer than most electronic products. They usually have a two or three year warranty. The main drawback is their expense, with new models costing between \$2,000 and \$3,500. Used CCTVs can be obtained at some low vision clinics, through some dealers and on E-bay and other such sites.

### "Mouse" or Hand-Held CCTVs Connected to a Standard TV

In the last few years, small hand-held CCTVs that project text or an image onto a standard television screen have become available. Resembling a computer mouse in appearance, they are small, light and inexpensive. Some cost only \$100 to \$200. The screen image is not quite as good as the standard desktop CCTV, and they are more difficult to use, especially for people with tremor or poor hand-eye coordination. They have to be placed flat on whatever (usually text on paper) is being viewed, and they are difficult to write under. Most do offer color, white-on-black and black-on-white viewing options. Most models are fragile but do offer a 1 year warranty. Currently, for those who can use them, this type of CCTV is the best bargain available.

### Portable CCTVs or "Pocket" CCTVs

Small portable CCTVs, usually with a monitor screen rectangular shaped and 3 to 5 inches in greatest length, fit easily into a pocket or purse and weigh less than one pound. Available only in the last 10 years, they have also improved steadily. They have the same options as a desktop CCTV, with white-on-black, color, freeze frame and variable magnification levels. They are less expensive (\$300 to \$700) than a standard desktop CCTV. For people who are active, still working or traveling, they are very useful. The disadvantages are the small screen size, which limits magnification and the amount of text or image on the screen, and. Because they are carried around, bumped and dropped, they tend to not have the longevity of a desktop CCTV. But for an active person who is out of the house all day they are great.



Standard Desktop CCTV

### Combined CCTVs and OCRs or "Screen Reader" CCTVs

New CCTVs are being introduced offering additional features beyond simple magnification. Some are combined "Screen Readers" and CCTVs. These not only magnify text but also will, by utilizing Optical Character Recognition (OCR) technology read the text being magnified. Some can process the image on the screen in various ways.

### CCTVs That Interact With Computers

Other CCTVs use the screen and power of laptop computers, connecting through a USB port. Most of these now can interact with the computer to store the image or text in the computer. In most, the camera can focus on distant images as well as near. These are especially good for students, as they can focus on a teacher or chalkboard and the stored image can be studied later.

### Smart Phones and E-Readers

Smart phones have magnification features and additional apps are available that provide even more capabilities. There are magnification and reading programs available for the I-pad and other e-readers that may fulfill the magnification needs of many people. If you are thinking about obtaining one of these, or already own one, you should explore the magnification and voice features.

## TALKING BOOKS

The National Library Service provides qualifying individuals a bimonthly large print catalog of recorded books and magazine at no charge.

Patrons may order talking books by contacting their local cooperating library. Contact information is online at [www.loc.gov/nls/find.html](http://www.loc.gov/nls/find.html)

You may also call our Resource Service Consultant, Dan Roberts, at 1-888-866-6148 to locate the library contact phone number for your state.