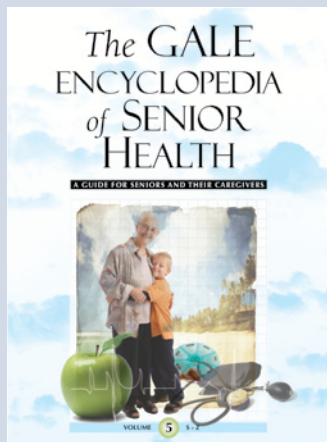



The Gale Encyclopedia of Senior Health: A Guide for Seniors and Their Care Givers


Vital information to meet the needs of an aging population



The Gale Encyclopedia of Senior Health: A Guide for Seniors and Their Care Givers

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NEW TITLE  Senior citizens and their families, medical and social work students, nursing home workers, and practicing health care professionals will value the vital information they find in *The Gale Encyclopedia of Senior Health: A Guide for Seniors and Their Care Givers*. More than 600 entries help users meet the needs of America's aging population by addressing issues related to the aging body as well as the social and cultural dimensions of seniors' lives. Five types of entries are covered:

- **Diseases and Conditions.** Constituting over 50% of the book, these entries cover every major system in the aging body, how disease affects it and treatment options, including medications. Sample entries include Arthritis, Alzheimer's Disease, Balance Problems, Diabetes, Dry Mouth, Heart Disease, Parkinson's, Shingles, Varicose Veins and more.
- **Treatment, Rehabilitation, Recovery.** Sample entries include physical therapy, wheelchairs, recovering from surgery, managing multiple medications, descriptions of different professional care givers' roles (registered nurse, physical therapist, home health aide, dietician, various medical doctor specialties) and more.

- **Aging, General Health, Death and Dying.** Sample entries include loneliness, sexuality, independence, legal issues at the end of life (wills, powers of attorney), losing a spouse, managing health care costs and more.
- **Healthy Living: Nutrition, Exercise, Prevention.** Sample entries include recommended exercise for different age brackets, ways to strengthen large muscle groups, water exercise, nutrition needs, meal supplements and more.
- **Community Care Giving.** Information on how involvement in community groups, faith communities, travel groups and volunteer organizations contribute to seniors' quality of life. Other entries address the questions of family members and care givers, including when to encourage a senior to seek medical attention, how to find support groups for the "sandwich generation" and more.

Landers, Susan J. "Exercise Can Help Elderly in Fight Against Alzheimer's." *American Medical News* 49:6 (February 13, 2006): 57.

ORGANIZATIONS
American Heart Association, 7272 Greenville Avenue, Dallas, TX, 75231, (888) 844-USA-1, www.americanheart.org.

Helen Davidson

Age-related macular degeneration

Definition
Age-related macular degeneration (AMD) is a chronic, painless eye disease occurring in people over age 50 that causes irreversible loss of central vision; peripheral (side) vision is not affected.

Description
The macula is the central part of the retina, the layer of nerves lining the back of the eye that sense light and transmit the information to the brain. The macula is very sensitive to light and is the part of the eye that allows people to see sharp, crisp details. In AMD, central vision becomes blurry and may be completely lost. Peripheral vision (seeing "out of the corner of your eye") is not affected, so although people with AMD may become legally blind (visual acuity of 20/200 or worse), AMD does not lead to a complete absence of sight. Damage done to the retina by AMD cannot be repaired. Vision cannot be restored to normal levels, but vision loss can often be slowed, especially if the disease is diagnosed early.

Dry AMD
There are two forms of AMD. All AMD begins with the dry form of the disease, also called non-neovascular or nonexudative AMD. Eighty-five to ninety percent of people with AMD have the dry form. Many people have mild dry AMD for a long time without noticing any serious symptoms because vision deteriorates slowly. Dry AMD usually affects both eyes, it may occur in only one eye. In this case, the unaffected eye usually compensates for any vision loss and daily activities remain unaffected. Dry AMD develops because waste products build up in the retina. The outermost layer of the

This is what an AMDer grid might look to someone with AMD.

SOURCE: National Eye Institute, National Institutes of Health, U.S. Department of Health and Human Services

(Illustration by GOS Information Services, Cengage Learning, Gale.)

GALE ENCYCLOPEDIA OF SENIOR HEALTH 39

A_G4825-ESP_Rev 6/11/08 12:48:03pm 39 of 266

Prevalence of Age-Related Macular Degeneration (AMD) among adults 40 years and older in the United States

Age Years	Advanced AMD		Intermediate AMD	
	Persons	(%)	Persons	(%)
40-49	75,000	0.1%	807,000	2.0%
50-59	112,000	0.2%	1,201,000	2.8%
60-69	162,000	0.3%	1,704,000	4.1%
70-79	240,000	0.4%	2,485,000	5.9%
80+	380,000	0.6%	3,924,000	9.3%
Total	1,249,000	1.8%	13,811,000	8.1%

NOTE: Adapted from Archives of Ophthalmology, Vol. 122, April 2004.

Age-related macular degeneration

(Illustration by GOS Information Services, Cengage Learning, Gale.)

to accumulate faster than it can be removed. Waste build-up causes clumps of yellow pigment, called drusen, to develop under the retina. Drusen are common in people over age 60. Ultimately this failure to dispose of retinal waste causes cells in the macula to become damaged, leading to a loss of central vision.

Wet AMD
Wet AMD affects 10-15% of people with AMD. People who develop wet AMD start by having dry AMD. They can have dry AMD for a long time, and in most people, it never progresses to wet AMD. However, some people can progress to wet AMD within days or weeks. Wet AMD causes rapid deterioration of vision. Wet AMD usually develops first only in one eye, although the chance of developing it in the other eye within five years is quite high. Early on in the disease, objects with straight lines in the central field of vision appear wavy. Severe vision loss (20/200 or worse) that affects daily activities can develop quickly.

Wet AMD develops because new blood vessels suddenly grow in the choroid layer. These are called choroidal neovascularizations (CNVs). They appear to grow in response to an accumulation of waste or lack of nutrition in the retina when the RPE begins to break down. The CNV's leak blood and fluid into the retina (thus the name "wet") causing disruption of the nutrition system and damaging the cells of the macula.

Another less common form of wet AMD called retinal pigment epithelial detachment occurs when the choroid layer does not grow any CNVs, but fluid from the blood vessels already present leaks and collects under the RPE. Symptoms are the same as for

other wet AMD, but vision deteriorates much more slowly (months or years instead of days or weeks). Eventually, new CNVs develop and this form of wet AMD progresses to the more common form of wet AMD.

Demographics
AMD is a disease of the elderly; it is not diagnosed in people under age 50. In the industrialized world, the disease is most common in Caucasians and least common among people of African ancestry. It occurs more often in women than in men, and occurs among all socioeconomic groups. Estimates of the rate of AMD vary considerably depending on the conditions used to define the disease, but it is believed that about 20% of Americans over age 60 show some sign of retinal changes (but not necessarily vision loss) associated with AMD. About 2% of the population over age 70 have either wet AMD or advanced dry AMD; this increases to 6% of those over age 80. In 2004 it was estimated that 8 million Americans had AMD and that 1.75 million were severely affected. This number is expected to increase as more people live to a greater age.

Causes and symptoms
The root cause of AMD is not known, but scientists have found multiple genes that appear to be associated with the disease. As of 2008, there is no genetic test for AMD. Advanced age, cigarette smoking, obesity, family history of AMD, and poor diet all increase the risk of developing AMD. Cigarette smoking doubles the risk and is the single most preventable cause of the disease.

Symptoms of dry and wet AMD differ. Often dry AMD shows no symptoms, and neither wet nor dry AMD causes pain. In other cases, individuals with dry AMD may:

- need more light for reading.
- find that colors look more pale or washed out.
- have difficulty doing detailed work, such as needlepoint or model-making.
- have slightly hazy vision.
- take longer for their vision to adapt to low lighting.
- develop a blurry or blind spot in the center of their field of vision.

The main symptoms of wet AMD are that straight lines appear distorted and central vision deteriorates rapidly.

GALE ENCYCLOPEDIA OF SENIOR HEALTH 40

A_G4825-ESP_Rev 6/11/08 12:48:03pm 40 of 266

▲ Color photographs, illustrations and tables enrich entries

DISEASES AND DISORDERS OF THE AGING BODY

From anemia to meningitis to ventricular tachycardia, *The Gale Encyclopedia of Senior Health: A Guide for Seniors and Their Care Givers* covers hundreds of diseases and disorders that can affect aging people. Helpful details on medications, including individual prescription and over-the-counter drugs, are also given.

Rubrics for Disease and Disorder entries:

- Definition
- Description
- Demographics
- Causes and symptoms
- Diagnosis
- Treatment
- Nutrition/dietetic concerns
- Prognosis
- Prevention
- Caregiver concerns
- Questions to ask the doctor
- Resources
- Key terms

Rubrics for Drug entries:

- General description, including generic and trade names
- Why it is prescribed and how it works
- Recommended dosage
- Precautions
- Side effects
- Interactions with other drugs and food
- Questions to ask the pharmacist
- Care giver concerns
- Key terms
- Resources

FOR MORE INFORMATION:

For more information, contact your Gale Representative.

In the U.S. and Canada:
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Age-related macular degeneration

QUESTIONS TO ASK YOUR DOCTOR

- What kind of ARMD do I have?
- What type of treatment is best for my ARMD?
- Are both eyes affected?
- Can I drive safely?
- Where can I get more information about low-vision aids?
- Should I be taking ARED supplements?
- Are there clinical trials of new drugs or procedures that would benefit me?

KEY TERMS

Antioxidant—A molecule that prevents oxidation. In the body antioxidants attach to other molecules called free radicals and prevent the free radicals from causing damage to cell walls, DNA, and other parts of the cell.

Dietary supplement—A product, such as a vitamin, mineral, herb, amino acid, or enzyme, that is intended to be consumed in addition to an individual's diet with the expectation that it will improve health.

Drusen—Clumps of pigment that accumulate under the retina when wastes build up faster than they can be removed. Drusen are a sign of dry age-related macular degeneration.

Fluorescein dye—An orange dye used to illuminate the blood vessels of the retina in fluorescein angiography.

Macula—The sensitive center of the retina that is responsible for detailed central vision.

Off-label use—Use of a drug in the United States to treat a condition other than one for which the drug was approved by the U.S. Food and Drug Administration (FDA).

Retina—Light-sensitive tissue on the back of the eye that receives images and converts them into nerve impulses to be sent to the brain by way of the optic nerve.

Prognosis
ARMD is not reversible. Dry ARMD often progresses slowly and necessitates few changes in daily activities such as reading or driving. About 15% of people with dry ARMD develop wet ARMD. Wet ARMD can progress rapidly and result in legal blindness, thus limiting daily activities.

Prevention
Preventive measures include stopping smoking, and eating a healthy diet high in fruits and vegetables and low in animal fats. Regular eye examinations aid in early diagnosis, which is important in slowing vision loss.

Caregiver concerns
Caregivers should be alert to the fact that dry ARMD develops slowly and may gradually make it unsafe for individuals to drive. They should also be aware that people with ARMD may be more prone to falling and tripping over objects on the floor. Caregivers can help people with moderate to severe ARMD by providing low-vision aids such as excellent direct lighting, large-print books, large-number telephones, color-coded pillboxes, and similar aids. Legally blind individuals with ARMD may qualify for free mobility and orientation training or for a guide dog.

RESOURCES

BOOKS
Gibbers, Patricia. *Coping with Macular Degeneration*. London: Shindler Press, 2006.

Roberts, Daniel L. *The First Year: Age-Related Macular Degeneration: An Essential Guide for the Newly Diagnosed*. New York: Marlowe & Co., 2006.

OTHER
Assessing for Age-Related Macular Degeneration. EyeCare America, Foundation of the American Academy of Ophthalmology. March 26, 2007 [cited February 4, 2008]. <http://www.eyecareamerica.org/eyecare/treatment/alternative-therapies/assessing-armd.cfm>.

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A_G4825-53H_Rev
6/11/08
12:48:03pm
42 of 246

▲ A Resources section directs readers to books, articles, organizations and other additional sources of information on a topic.

COMPILED BY EXPERTS

Essays in *The Gale Encyclopedia of Senior Health: A Guide for Seniors and Their Care Givers* were compiled by experienced medical writers, including medical doctors, registered nurses, pharmacists, health educators and nutritionists. A professional advisory board reviewed completed essays to ensure that they are appropriate, up-to-date and accurate.

eBOOK FEATURES

The eBook version of *The Gale Encyclopedia of Senior Health: A Guide for Seniors and Their Care Givers* is fully searchable (keyword, article title, full-text, image captions) with other eBooks in the *Gale Virtual Reference Library* collection. Hyperlinks to individual entries will be provided from the table of contents, book index, list of illustrations and cross-references.