Patient Information

Alzheimer Disease

Alzheimer (altz-hy-mer) disease (AD) causes major changes to occur in the brain, making it difficult to remember, learn, and make decisions. Researchers don't know what causes AD, but research has shown that the brains of people who have this disease develop abnormal clumps (called plaques) and tangles of fibers, which interfere with the way brain cells communicate.

AD is not a natural process of aging, even though people typically develop AD as they grow older. The course of AD can run from a few years to as long as 20 years, but most often people live with AD for about 9 years. Eventually, patients with AD need total care.

AD is the sixth leading cause of death in the United States, and 1 out of every 8 people aged 65 and older has the disease. Fortunately, the medical community is learning more about AD every day.

How do I know if I'm at risk?

The exact cause of AD still eludes researchers, but this disease is likely due to a combination of genetics and other factors. The 2 major risk factors for AD are advanced age and family history of the disease. Evidence from genetic research has shown a link between AD and genes on certain chromosomes (1, 14, 19, and 21). Most researchers believe many more genes are involved in AD. There's some evidence that a gene—the apolipoprotein (app-eh-ly-poe-pro-teen) E4 gene—is associated with AD, but some people who have that gene never develop AD and some who don't have the gene do develop AD. One study also suggests that a high level of a body chemical called homocysteine (home-oh-sis-teh-een) greatly increases your risk of developing AD.

What are the warning signs?

Early signs of AD can be misleading, because they vary widely from person to person and can be mistaken for signs of other diseases, including depression, fatigue, or grief. For example, memory loss is a common symptom of AD, but at first, AD may produce only mild forgetfulness.

- **Short-term memory loss.** You may find yourself having trouble remembering recent events or conversations.
- **Difficulty performing familiar tasks.** You may find yourself stumped by ordinary activities, like brushing your teeth, washing your hair, or making a telephone call.
- **Disorientation.** You might discover yourself lost in your own neighborhood or placing household items in places they don't belong, like placing a book in the refrigerator.
- **Increasing difficulty planning/managing.** You may have increasing problems balancing your checkbook, paying bills, or preparing a shopping list.
- **Trouble finding words.** You may have increasing difficulty recalling words for everyday things. For example, "car" can become "that thing that I drive" and "chair" can become "thing that I sit on."
- **Unpredictable mood swings.** You may suddenly shift from happy to sad or from calm to angry with no obvious reason.
- **Lack of motivation.** You may find your-

self uninterested in activities you used to enjoy, seeing less of your friends and family, and spending more time staring at the television.
- **Sleep changes.** You may sleep more than usual or sleep during the day rather than at night.

When do I need medical attention?

It's very important to see your health care provider if you believe you have symptoms of AD. Symptoms include:
- Difficulty paying attention
- Simple calculations becoming impossible
- Increasing difficulty with daily activities
- Dramatic mood swings
- Odd gait
- Loss of coordination

How can I avoid the problem?

AD can't yet be prevented or reversed, but a diet rich in green, leafy vegetables, low-fat dairy products, citrus fruits, whole wheat bread, and dry beans can reduce your body's level of homocysteine. You can also help keep your brain healthy by following these general guidelines:
- **Avoid harmful substances.** You should avoid illicit drugs and excessive amounts of alcohol.
- **Read often.** Challenge yourself by learning new skills, and try to read daily.
- **Stay active.** Incorporate creative leisure activities into your life.
- **Gain control.** If you feel you have more control over your life, your brain chemistry actually improves.

How is it treated?

Although there is no known cure for AD, these treatments can reduce symptoms for a period of time, including:
- **Cholinesterase (koe-lin-ess-tur-ase) inhibitors.** These drugs prevent the breakdown of acetylcholine (a-seat-el-koe-lean), a chemical in the brain vital for learning, memory, and attention. Four cholinesterase inhibitors approved for AD therapy are donepezil (doe-nep-uh-zil) for mild, moderate, and severe AD; and galantamine (guh-lan-tuh-meen), rivastigmine (ri-vuh-stig-meen), and tacrine (ta-creen) for mild-to-moderate AD.
- **Memantine (meh-muhn-teen).** This medication works by regulating the amount of another chemical in the brain, glutamate.

Some medications, help treat the behavioral and psychiatric symptoms that may be related to the disease, including hallucinations, agitation, and sleep problems. Please check with your doctor to whether these treatments are right for you:
- **Antidepressants.** These drugs, known as selective serotonin reuptake inhibitors (SSRIs), treat irritability and mood issues.
- **Anxiolytics.** These drugs treat anxiety and restlessness.

Researchers are also studying nonsteroidal anti-inflammatory drugs as a possible treatment as well as the effects of vitamin E, ginkgo biloba, and estrogen on people with AD. Some researchers are trying to develop an AD vaccine. For more information about AD, call the Alzheimer's Association at (800) 272-3900, or visit the Web site at www.alz.org.

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