



Dementia Defense

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As a doctor, I've seen a lot of awful things happen to the human body. But the scariest maladies of all may be those that attack the mind. Alzheimer's dementia tops that list.

This condition, which currently affects roughly 4.5 million Americans, results in the literal loss of one's mind to the point where one forgets even close family members and they become strangers. Alzheimer's disease is widely thought to be unpredictable, unpreventable and, partly for those reasons, uniquely dreadful.

But the mind and brain are connected to the body as inextricably as the proverbial shin bone is to the ankle bone. And for that simple reason, Alzheimer's is far more preventable than most people realize. Like heart disease, Alzheimer's runs in families and has a strong genetic component. But the way lifestyle interacts with genes can make all the difference. Studies out of the Harvard School of Public Health, among others, suggest that lifestyle factors can reduce the risk of Alzheimer's and related forms of dementia by 50 percent or more.

These lifestyle factors, or dementia defenses, fall into three main categories: the heart-brain connection; the mind-body connection; and use it or lose it.

The first, the heart-brain connection, refers to the fact that as goes the health of the heart and blood vessels, so goes the health of the brain. Like any vital organ, the brain is critically dependent on its blood supply. A brain that is well provided with nutrient- and oxygen-rich blood tends to be a healthy and resilient brain. When blood flow to the brain is compromised, so is the brain's vitality.

While high blood pressure may generally cause no symptoms, it can do serious damage to the heart, the kidneys, the eyes and the brain. Blood flow to the brain can also be impaired by anything that damages blood vessels. So the well-known risk factors for cardiovascular disease -- smoking, high cholesterol, poor diet, lack of physical activity and obesity -- are also potential risk factors for dementia.

The second category of defense, the mind-body connection, is a reminder that a sharp mind and healthy body are interdependent. There is some evidence that poorly controlled stress, lack of sleep and various nutrient deficiencies increase the risk of dementia.

Such associations make sense: stress, sleep and diet can all affect hormone levels, and hormones overlap with neurotransmitters: the chemicals used by brain cells to communicate with one another. When nerve-cell communication is impaired, so is brain function -- a hallmark of dementia. A relatively new but rapidly developing field of medicine, psychoneuroimmunology, is entirely devoted to exploring the influences of mental health, immune function, hormones and the nervous system on one another.

Finally, there is the "use it or lose it" defense. Just as physical activity defends the body against aging and infirmity, mental activity seems to help preserve the vitality of the brain. Population studies consistently suggest that those who exercise their brains protect their minds from dementia. Crossword puzzles are aerobics for your brain. So is Sudoku.

There are also suggestions in the scientific literature, but as yet no proof, that fish oil supplements, antioxidants, vitamin B6 and estrogen used at menopause may all help prevent Alzheimer's. A trial of ginkgo biloba is under way. There are medications, such as the Alzheimer's treatment sold as Aricept, that are fostering insights about the potential role of drugs in prevention.

The genetics and brain pathology of Alzheimer's are under study, and the future will certainly bring us new prevention strategies. But there is much we can do with confidence right now. Here is the action plan:

--See a doctor routinely to get checked for cardiovascular risk factors, such as high blood pressure or high cholesterol. Work together to fix what you find.

--Don't smoke. Be physically active.

--Eat a healthful diet rich in fruits and vegetables. Blueberries are often mentioned as "brain food," but the simple truth is they are just plain good for us -- good for the brain, because they are good for the body. Broccoli, too, for that matter!

--Try to get enough sleep, and if needed, get some expert advice so you manage stress well.

--Exercise your brain routinely.

I also recommend, on general principles, a multivitamin/mineral supplement, and 1 or 2 grams of fish oil daily. The Alzheimer's Prevention Foundation International is a resource for staying apprised of new developments; visit <http://www.alzheimersprevention.org/index.html>.

Alzheimer's is not, despite its fearsome reputation, a condition that stalks us mysteriously from the shadows. The risk factors are mostly known and out in the open, so take charge of them. The opportunity to protect your mind would be a terrible thing to waste!

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