# Speaking of Alzheimer's

CBS Broadcaster Jim Nantz's famous voice has never been clearer.

### BY TODD FARLEY

f the name Jim Nantz sounds familiar, that's because since 1985 the CBS announcer has been the network's voice for many of its most-watched sporting events, including the NFL, the NCAA Final Four, the Masters golf tournament, and the PGA Tour. Twice an Emmy-award winner and five times National Sportscaster of the Year, Nantz was also named the 2011 recipient of the Pro Football Hall of Fame's Pete Rozelle Radio-Television Award.

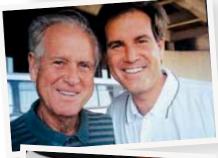
Still, it's not for his broadcasting career that Nantz wants to be remembered. Rather, in posterity, he wants the family name to be associated with a cure for Alzheimer's disease (AD).

AD struck close to home when the award-winning announcer (officially Jim Nantz III) watched his father, Jim Nantz Jr., deteriorate as a result of the disease from the mid-1990s until his death in 2008. "It's hard, really hard, to watch the head of your family go through a long, slow death while there's nothing you can do," Nantz says.

### **AD ON THE BRAIN**

AD is the most common cause of dementia. (See box, "Dementia: The Basics.") More than five million Americans currently live with the disease, and that number is expected to triple by the middle of the century. A progressive, neurodegenerative disorder, AD results in the death of nerve cells (neurons) in the brain. When neurons in the hippocampus are lost, problems with short-term memory result. (The hippocampus affects memory and spatial navigation.) When neurons in the cerebral cortex die, judgment and







THE NANTZ NAME

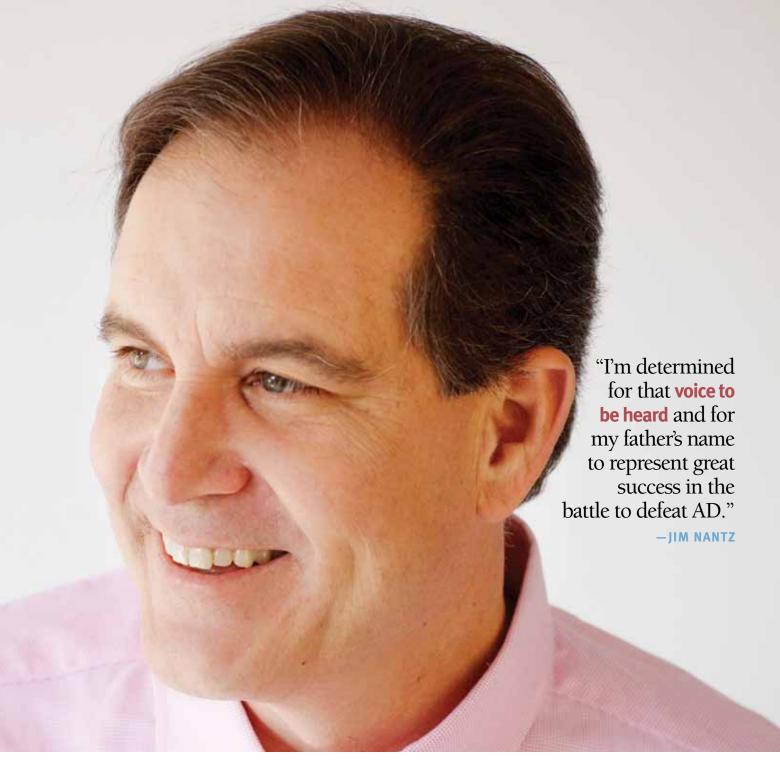
Jim Nantz (III) as a young boy with his father, Jim Nantz Jr.; smiling for the camera as adults; Nantz at the opening of the Nantz National Alzheimer Center in Houston, TX. the ability to communicate are impaired. (The cerebral cortex, or "gray matter" of the brain, is a thin sheet, approximately 2 to 4 millimeters thick, that covers the brain and affects hearing, touch, vision, thinking, and understanding language.) And while much about AD is not yet known, experts say they are forming a detailed picture of what a brain with AD typically looks like. Eventually, having such a picture may help with diagnosis.

"On autopsy, the brains of people with AD look very distinct," says John Hart, M.D., medical science director at the Center for BrainHealth, University of Texas at Dallas, and member of the American Academy of Neurology (AAN). He is referring to the accumulation of beta-amyloid plaques and neurofibrillary tangles that are evident in the brains of people with AD. Beta-amyloid normally exists in the brain and is eliminated naturally. But in cases of AD, these beta-amyloid plaques found between nerve cells become hard and insoluble.

Neurofibrillary tangles, on the other hand, occur within neurons when the protein "tau," which transports nutrients within a nerve cell, is formed abnormally and no longer functions correctly.

"On autopsy," Dr. Hart continues, "people with AD have large amounts of these plaques and tangles in places one would expect normal neurons to be."

However, while scientists recognize these plaques and tangles as evidence of AD, it's unclear whether they are a reason for or a consequence of the disease—or both. "The question is," Dr. Hart says, "are the plaques and tangles the *cause* of the



neurons dying, or are they the result of the neurons dying?"

AD is usually diagnosed based on someone having problems with thinking and memory that can't be explained otherwise. Meril S. Platzer, M.D., a Los Angeles neurologist and AAN member who has treated many people with AD, describes the condition as a "long-standing process where a person loses his or her memory and ability to think abstractly and/or perform the activities of daily living." Specifically, she says, AD patients can forget how to perform simple tasks such as shaving or using a telephone or a remote control; may have difficulties with balancing a checkbook or handling their finances; and often have problems with both directions and rules—perhaps not remembering how to get home when driving or even knowing

that they must stop at a stop sign.

In Dr. Hart's experience, "People with AD have trouble finding the names of people and the right words for things. In addition, they might forget conversations and phone numbers or fail to react to their environment the way people would normally do. Sometimes people with AD have trouble understanding and coming up with solutions to problems, or they make judgments that one would not typically make. Also, they may wander and get lost, even in previously familiar places."

# **DIAGNOSING NANTZ'S DAD**

These problems became obvious to the Nantz family as early as 1992 or 1993, when Nantz's sister Nancy remembers the



### **ON THE BALL**

Nantz with golf analyst Nick Faldo broadcasting from the AT&T Pebble Beach Pro-Am; interviewing Super Bowl XLIV-winning quarterback Drew Brees of the New Orleans Saints; broadcasting the men's Final Four basketball championship with analyst Clark Kellogg.

trouble her father had on a number of family vacations. "My dad was getting lost or disoriented at hotels," she recalls. "Once, he went down to get a cup of coffee and didn't come back for an hour. The people at the front desk had to write down our room number and point the way for him."

Then, on the second day of the Colonial golf tournament in 1995, after visiting his son in the broadcast booth, Nantz Jr. had a stroke. "From that point on, he began a very rapid decline," Nantz says. "His memory wasn't the same, and at times he said outrageous things. It's like the dots weren't connected in his head."

Even with the symptoms of AD becoming increasingly obvious in Nantz Jr., a diagnosis was not immediately forthcoming. One rarely is until autopsy, experts say, because no definitive test for AD exists. Instead, doctors usually take a history of the patient and give various cognitive and neuropsychological tests.

"The diagnosis of AD is a diagnosis of exclusion, and in general, only an autopsy can confirm it," Dr. Platzer says. "You have to rule out treatable causes of memory loss." She lists depres-

sion and various medications—such as sleeping pills or drugs for incontinence—as possible factors that could dull memory and produce symptoms similar to AD.

For the Nantz family, it was many months after their father's stroke before a diagnosis was made. "The diagnosis occurred over a two-year span," Nantz recalls. He took his father to see various specialists around the country, two of whom speculated that Nantz Jr. was in the early stages of AD. Then, the Nantz family visited Stanley Appel, M.D., professor and chair of the department of neurology at Methodist Hospital and Fellow of the AAN, in their hometown of Houston.

"Today, we have much more experience with brain imaging and spinal fluid analysis to strengthen the diagnosis," says Dr. Appel, director of the Methodist Neurological Institute and Nantz Jr.'s eventual physician. "Back in the '90s, we relied solely on the presence of certain features, such as significant memory loss, and the absence of others, such as stroke, infection, or tumor, that could otherwise explain the memory

# **Dementia: The Basics**

- ▶ Dementia, which literally means "out of mind," refers to any neurodegenerative illness that affects thinking. It is not a disease per se as much as a description of symptoms.
- ▶ The symptoms of dementia include problems with thinking or reasoning, memory, organizing and planning, communicating, and understanding language. Other symptoms include changes in personality or behavior, and frequently delusions or hallucinations. These symptoms are severe enough to interfere with a person's ability to function in everyday life.
- ➤ Experiencing memory loss alone does not mean a person has dementia. Dementia is diagnosed only when someone has at least two impairments in brain functions—and only then when those impairments result without a person having experienced a loss of consciousness.
- ► The U.S. government estimates that nearly seven million people in the United States have dementia, with nearly two million of those experiencing serious effects.
- ► All dementias result from problems with neurons in the brain: Either these nerve cells die or fail to function properly. These problems result from a variety of factors.
- ► The biggest risk factor in acquiring any dementia is age. The chances of acquiring Alzheimer's disease (AD),

- vascular dementia, or any other dementia increases the older a person gets. Other risk factors include high blood pressure, high cholesterol, diabetes, hypertension, and heart problems, or various lifestyle choices like smoking or excessive alcohol use. Genetics and family history seem to play some role in acquiring dementia, as does having atherosclerosis or Down syndrome.
- A diagnosis of dementia due to AD is not made definitively until autopsy. An initial diagnosis is made as a diagnosis of exclusion, meaning the symptoms of dementia are present without any other medical explanation. Doctors make such a diagnosis based on patient history; physical, neurologic, and neuropsychological tests; and brain scans.
- Most dementias cannot be reversed or stopped, but treatments are available to manage some of the symptoms. People with AD may benefit from the use of cholinesterase inhibitors, which seem to help memory and thinking skills in certain cases. Memantine also seems to improve cognition for people with AD by controlling the neurotransmitter glutamate. Other dementias are treated mostly by controlling symptoms or eliminating risk factors.

Source: National Institute of Neurological Disorders and Stroke (ninds.nih.gov) and the experts cited in this story.







A FAMILY REMADE
Left to Right: Nancy (Jim's sister), Jim Nantz Jr., Jim Nantz (III), and Doris Nantz celebrating Jim's first birthday; Jim and Nancy with their father at the beach; Jim, Doris, and Nancy; Jim, Nancy, Jim Nantz Jr., Don Hockaday (Nancy's

husband), and Doris.

or thinking problems. As a result, we had more difficulty in diagnosing the early stages of AD."

As Nantz recalls it, Dr. Appel broke the news as gently as he could. "He said, 'Jimmy, I'm sorry to tell you this, but it really does appear to be AD. The outlook isn't good. It's going to be a long hard struggle for your family." From a neighboring room, Nantz could hear his mother, Doris, crying. A social worker had just shared the news with her as well.

## **WHAT CAUSES AD?**

Although the Nantz family now had a diagnosis of their father's AD, no one knew what caused it. In fact, the exact cause of the condition remains a mystery for almost anyone with the disease, although certain risk factors do increase the likelihood of acquiring AD. Increasing age, a family history of the disease, and certain vascular risk factors (such as high blood pressure, high cholesterol, diabetes, hypertension, heart disease, and smoking) are all known to contribute. Controlling those vascular risk factors seems to be one possible way to prevent acquiring any dementing disease, including AD, vascular dementia, and others.

"I tell people now what I always told them," Dr. Hart says. "Don't smoke. Control diabetes, high blood pressure, and high cholesterol. Keep yourself mentally and physically active. Doing those things reduces one's risk in general of developing cognitive problems with aging, including AD."

Another possible risk factor for developing the disease is head injury. Dr. Platzer notes that veterans returning from the Iraq and Afghanistan wars—with their prevalence of traumatic brain injury (TBI) from explosive devices—seem to be more prone to AD. She cites as evidence a 2011 study done by AAN member Kristine Yaffe, M.D., that suggests older veterans who had sustained a TBI were twice as likely to later develop dementia. Dr. Platzer also notes a 2011 study led by AAN member Christopher Randolph, Ph.D., which suggests ex-NFL players may be more likely to have mild cognitive impairment (a possible precursor to AD) than the general population.

"Environmentally," Dr. Hart agrees, "having a head injury with loss of consciousness appears to be a factor."

Nantz's father was once knocked unconscious in a college football game. "In attempting to block a punt, my father got kicked in the head so violently by the kicker that it burst his eardrum," Nantz says. His father subsequently had hearing in only one ear and often complained about "ringing" in the injured one. (See "Sounds of Silence," page 20, for more on ringing in the ears.) He had frequent headaches and many problems with the faulty eardrum.

Whether or not Nantz Jr.'s head injury was a factor, there was no longer any question that his father had a dementing disease. Doris,

Nancy, and Nantz watched Nantz Jr.—a man described by his son as "healthy, strapping, and fit, a jokester, always the life of the party with a smile for everyone he met"—slowly forget who he was.

### CARING FOR THE ELDER NANTZ

Along with their mother, Nantz's sister Nancy was one of her father's primary caregivers. Before his keys were eventually taken away from him, she recalls, her father regularly had difficulty driving. He frequently got lost, once claimed to have a fender-bender that the family never heard about again, and another time returned from the local gas station certain he'd just enjoyed a friendly interlude with NFL coach Jimmy Johnson. (His daughter is certain he did not.) As the disease progressed, Nancy noticed strange behaviors as well: Her father became obsessed with opening wallets and counting money, acted frequently like he was speaking in a foreign tongue or repeated sounds such as "bing, bong," and though always a joker, he became "sillier and sillier," she recalls.

"A lot of it was odd," Nancy says, admitting that at times she had to explain to strangers that her father's actions resulted from AD.

As Dr. Appel told the Nantz family, AD can not be cured. There wasn't a cure in the '90s, when Nantz Jr. was diagnosed, and there isn't a cure today. "But we do have treatments," Dr. Platzer says.

Treatments for AD include supporting the family and caregivers and doing whatever possible to manage the behavior of the person with the disease. But the primary method of treating AD is through drug therapy. One type of drug includes the cholinesterase inhibitors (brand names Aricept, Exelon, and Razadyne), and another is memantine (brand name Namenda). Memantine works by blocking a glutamate receptor. Both types of drugs improve some of the symptoms of the disease, such as attention, memory, and carrying out simple tasks.

"Right now," Dr. Hart says, "we don't have a disease-modifying treatment, meaning something that stops the cells from dying."

"Both of these drugs have a very mild effect, and they only help manage some of the symptoms," Dr. Appel says. "We desperately need new drug therapies. This is something all of us are working very hard on."

Both Aricept and Namenda were prescribed for Jim Nantz Jr. Although they helped somewhat, his AD continued to progress. As Dr. Appel had predicted in his office on the day of the diagnosis, the disease was a struggle for the entire Nantz family. "AD is not a disease of the individual but a disease of the family," he emphasizes, referring not to genetics but to the emotional and physical toll.

Nantz concedes that the "heavy lifting" of caring for his father fell mostly to his sister and mother but says that caretaking took a mental and physical toll on everyone.

"My dad had full-time care in the house, but the master



It's not for his broadcasting career that Nantz wants to be remembered. Rather, he wants the family name to be **associated with a cure** for Alzheimer's disease.

bedroom was upstairs," Nantz says. "Getting him up and down stairs, showering and dressing him, became very difficult. My father had been a football player. At 6'2" and 225 pounds, he was a rock. My mother is a petite, beautiful woman, who had no ability to drag him up and down the stairs."

Nantz remembers bringing his dad to San Antonio in 1998 to watch a basketball game he was broadcasting, only to discover that his father—once a gregarious and friendly man who loved a big event—was becoming increasingly anxious. Keeping his father safe at times like that, and trying to protect his reputation in light of possible outbursts, made Nantz feel a need for "constant vigilance."

Eventually, to reduce the stress under which they were living, the Nantz family moved their father into a care facility in 2000. It was not a decision they undertook lightly. "One of the most gut-wrenching things you can do is to put a loved one in a home and then turn around and walk out the door. That's just an impossible walk," Nantz says.

Moving Nantz Jr. into a care facility didn't solve the family's problems entirely: Soon after, Doris fell ill. The physical and mental exhaustion from years of caregiving landed her in a hospital with severe dehydration and pneumonia. Although Doris recovered, her husband was less lucky. Within weeks of his being placed in a home, Nantz Jr. had a serious fall.

"He was accidentally pushed down in the corridor by a little old lady," Nantz says. "So here's my father, a big football player, and his steps are so uneven that he got knocked over and broke his hip."

Nantz Jr. needed a wheelchair for the rest of his life. "It wasn't just a question of physical weakness," Dr. Appel says, explaining that AD patients often forget how their bodies work. "The trauma of such an injury can aggravate and accelerate the disease even after the disease is well along."

The Nantz family eventually moved Nantz Jr. to a second facility that had physical therapy and full-time care.

Nancy continued to visit her father regularly even though he couldn't talk for the last three or four years of his life and eventually failed to recognize his daughter. "I went to see him just about every day, from when he went into the first nursing home until the end. I just wanted to see his face," Nancy says.

### IN HIS FATHER'S NAME

Still, the love and lessons that Nantz Jr. shared with Nancy and Jim were not lost. Nancy's regular visits to her father's bedside are evidence of that, as is the book Jim wrote as "a loving tribute to my father": the *New York Times*' best-seller, *Always By My Side: The Healing Gift of a Father's Love* (available on **amazon.com** and at most major booksellers). In it, Nantz expresses his gratitude for his father teaching him how to respect others, aim for the stars, make his own breaks, and admit mistakes. Perhaps most importantly, Nantz Jr. had taught his son to live a life of "significance," which is why Nantz has become such a passionate voice in the battle against the disease that

eventually killed his father.

Nantz was always impressed with Maria Shriver's work raising awareness of AD, but he still felt the disease needed "ambassadors" and believes the stigma some people feel about dementia may keep them from speaking out.

"I'll stand up," Nantz recalls thinking. "I'll take this thing on. I'll do my share."

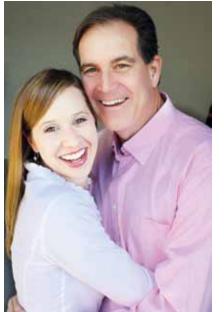
Nantz's book came out of his commitment to advocacy. It was released near Father's Day in 2008. His father died on June 28th of that year, some 13 years after having a stroke at the Colonial. The response to *Always By My Side* was so positive that Nantz felt he could do more.

He joined forces with The Methodist Hospital in Houston to create the Nantz National Alzheimer Center (NNAC). It is a facility dedicated to fighting AD disease as well as other neurologic conditions, including concussions, both by raising awareness and developing resources to treat them.

"Patient service is our first priority,"

says Gustavo Roman, M.D., director of the Nantz National Ålzheimer Center. "We would like the center to become number one in terms of service to patients with AD and other forms of dementia. Second is clinical research. "We are conducting research to determine what factors contribute to the development or the worsening of dementia."

Noting that he shared both a name and an identical-sounding voice with his father, Jim Nantz says, "I'm determined for that voice to be heard and for my father's name to represent great success in the battle to defeat AD. I'm determined to help my father improve the lives of millions of people."



A LIFETIME COMMITMENT
Jim and his fiancée, Courtney, who is also committed to to the work of the Nantz Center.