# Get to know the 10 Early Signs and Symptoms of Alzheimer's

Alzheimer's is a brain disease that causes a slow decline in memory, thinking and reasoning skills. The Alzheimer Association complied this list and note that every individual may experience one or more of these signs in different degrees.

If you notice any of them, please see a doctor.

1 Memory loss that disrupts daily life

One of the most common signs of Alzheimer's is memory loss, especially forgetting recently learned information. Others include forgetting important dates or events or asking for the same information over and over.

- 2 Challenges in planning or solving problems Some people may experience changes in their ability to develop and follow a plan or work with numbers.
- Oifficulty completing familiar tasks at home, at work or at leisure

People with Alzheimer's often find it hard to complete daily tasks. Sometimes, people may have trouble driving to a familiar location or managing a budget at work.

4 Confusion with time or place

People with Alzheimer's can lose track of dates, seasons and the passage of time. Sometimes they may forget where they are or how they got there.

Trouble understanding visual images and spatial relationships

For some people, difficulty reading, judging distance and determining color or contrast is a sign of Alzheimer's.

- 6 New problems with words in speaking or writing People with Alzheimer's may have trouble following or joining a conversation. They may struggle with vocabulary, have problems finding the right word.
- Misplacing items and losing the ability to retrace steps A person with Alzheimer's disease may put things in unusual places. They may lose things and be unable to go back to find them again.
- 3 Decreased or poor judgment People with Alzheimer's may use poor judgment when dealing with money, giving large amounts to telemarketers or pay less attention to grooming and hygiene.
- Withdrawal from work or social activities
  A person with Alzheimer's may have trouble keeping up with a favorite sports team or remembering how to complete a favorite hobby.
- Changes in mood and personality
  The mood and personalities of people with Alzheimer's can change.
  They can become confused, suspicious, depressed, fearful or anxious.

#### Make the call today.

Contact your primary care physician or neurologist and ask about your personal risk for Alzheimer's. You can also choose to visit DMI as a self-referred patient. No doctors order is required for a NeuroQuant exam. Self referred patients may consult with one of DMI's specially trained radiologist to review their results.



#### This exam is available at DMI - Indian Wells



Call our Scheduling Department at 760-694-9559 to make your appointment

74-785 Hwy 111, Suite 101, Indian Wells, CA 92210 Phone: (760) 694-9559 Fax: (760) 356-8208



#### NeuroQuant

# Early Detection of Alzheimer's with NeuroQuant



## Detecting Alzheimer's early can change your life

Alzheimer's is not a normal part of aging, although the greatest known risk factor is increasing age, and the majority of people with Alzheimer's are 65 and older. But Alzheimer's is not just a disease of old age. Up to 5 percent of people with the disease have early onset Alzheimer's.

Alzheimer's disease is a form of dementia that robs millions of people each year of critical thinking capabilities that are needed for a healthy and happy life. The statistics are staggering in both number of lives affected by the disease and the cost of caring for those individuals. The Alzheimer's Association latest figures are:

- 5.4 million Americans are living with the disease
- Two-thirds of those with the disease are women
- Of Americans aged 65 and over, 1 in 8 has Alzheimer's
- Alzheimer's disease is the 6th leading cause of death in the United States and the 5th leading cause of death for those aged 65 and older

## The benefits of Brain Imaging to patients

Early detection of Alzheimer's has benefits to both physicians and patients. Early diagnosis allows the physician to educate the patient of the various treatment options available to them, and the patient will have an understanding of what is happening, and therefore, will be able to evaluate their options and plan for their future. While there is no definitive test for early detection of Alzheimer's, one option available today is a diagnostic test using magnetic resonance imaging (MRI) and a special FDA Approved post processing volumetric software called NeuroQuant.

## **NeuroQuant**: Medical Imaging Aid to Early Detection of Alzheimer's

NeuroQuant analyzes high resolution images from a MRI scan of the brain to quantify the volume of the hippocampus, temporal horn, and other structures of the brain. The hippocampus is responsible for memory and spatial navigation. Researchers have found that Alzheimer's occurs when there is atrophy (shrinkage) of the volume of the total brain, and specifically the hippocampus.

#### Giving insight into Alzheimer's

NeuroQuant produces two reports for doctors looking to evaluate a patient for early signs of Alzheimer's:

#### Age-Related Atrophy report

The Age-Related Atrophy report contains the absolute and relative volumes of the hippocampus and inferior lateral ventricles. The resulting values are compared to age-appropriate reference distributions.

#### General Morphometry report; and color-coded brain segmentation.

The General Morphometry report provides the absolute and relative volumes for key structures of the right and left side of the brain. Physicians may use these reports, and the color-coded brain images, to measure atrophy of the brain.

NeuroQuant may also be used for comparative purposes. Alzheimer's is a progressive disease, so physicians may get a "baseline" study of a patient's brain when there is a suspicion of Alzheimer's, and then have follow up exams at prescribed times to see if the brain atrophied, and if so, at what rate. In addition, the standard MRI brain evaluation performed with Neuro-Quant assists the clinician in determining other potential causes of dementia such as vascular dementia, Huntington's disease, fronto-temporal dementia, Parkinson's disease, amyotrophic lateral sclerosis, and pseudo-dementia related to major depression. The insidious onset of Alzheimer's disease, and other dementia related disorders, complicates the clinical evaluation. NeuroQuant MRI is a highly valuable study that aids clinicians in the diagnosis, treatment, and surveillance of dementia.



High resolution brain scans are analyzed by NeuroQuant for Alzheimer's detection

## DMI's NeuroQuant Experts are here to help.



John F.
Feller, MD
Board Certified Radiologist
Medical Director
Founder and
Owner of DMI



Felipe Espinoza, MD Director of Neuroradiology