

Preventing and possibly reversing Dementia & Alzheimer's using Thermotherapy & Vibroacoustic Therapy

Inadequate blood flow can damage and eventually kill cells anywhere in the body, but the brain is especially vulnerable.

In vascular dementia, changes in thinking skills sometimes occur suddenly after a stroke, which blocks major blood vessels in the brain. Thinking difficulties may also begin as mild changes that gradually worsen as a result of multiple minor strokes or another condition that affects smaller blood vessels, leading to widespread damage. A growing number of experts prefer the term “vascular cognitive impairment” (VCI) to “vascular dementia” because they feel it better expresses the concept that vascular thinking changes can range from mild to severe.

Vascular brain changes often coexist with changes linked to other types of dementia, including Alzheimer's disease and Lewy body dementia. Several studies have found that vascular changes and other brain abnormalities may interact in ways that increase the likelihood of dementia diagnosis. Sign up for our e-news to receive updates about Alzheimer's and dementia care and research. Vascular changes that start in brain areas that play a key role in storing and retrieving information may cause memory loss that looks very much like Alzheimer's disease.

Vascular dementia is widely considered the second most common cause of dementia after Alzheimer's disease, accounting for 5% to 10% of cases. Many experts believe that vascular dementia remains underdiagnosed – like Alzheimer's disease – even though it's recognized as common.

The impact of vascular conditions on thinking skills varies widely, depending on the severity of the blood vessel damage and the part of the brain it affects. Memory loss may or may not be a significant symptom depending on the specific brain areas where blood flow is reduced. Vascular damage that starts in the brain areas that play a key role in storing and retrieving information may cause memory loss that is very similar to Alzheimer's disease.

Multiple small strokes or other conditions that affect blood vessels and nerve fibers deep inside the brain may cause more gradual thinking changes as damage accumulates. Common early signs of widespread small vessel disease include impaired planning and judgment, uncon-

trolled laughing and crying, declining ability to pay attention, impaired function in social situations, and difficulty finding the right words.

Diagnostic guidelines for vascular dementia have used a range of definitions for dementia and various approaches to diagnosis. In 2011, the American Heart Association and American Stroke Association issued a joint scientific statement on vascular contributions to mild cognitive impairment (MCI) and dementia. The Alzheimer's Association participated in developing the statement, which is also endorsed by the American Academy of Neurology. The goals of the statement, which include practice recommendations, are to raise awareness of the importance of vascular factors in cognitive change, increase diagnostic consistency and accelerate research.

Under the diagnostic approach recommended in the 2011 statement, the following criteria suggest the greatest likelihood of mild cognitive impairment (MCI) or dementia is caused by vascular changes:

The diagnosis of dementia or mild cognitive impairment is confirmed by neurocognitive testing, which involves several hours of written or computerized tests that provide detailed evaluation of specific thinking skills such as judgment, planning, problem-solving, reasoning and memory. There is brain imaging evidence, usually with magnetic resonance imaging (MRI), confirming: A recent stroke, or other vascular brain changes whose severity and pattern of affected tissue are consistent with the types of impairment documented in cognitive testing.

The U.S. Food and Drug Administration (FDA) has not approved any drugs specifically to treat symptoms of vascular dementia, but there is evidence from clinical trials that drugs approved to treat Alzheimer's symptoms may also offer a

Modest benefit in people with vascular dementia. Treatment primarily works to prevent the worsening of vascular dementia by treating the underlying disease, such as hypertension, hyperlipidemia or diabetes mellitus.

Controlling risk factors that may increase the likelihood of further damage to the brain's blood vessels is an important treatment strategy. There's substantial evidence

That treatment of risk factors may improve outcomes and help postpone or prevent further decline.

Individuals should work with their physicians to develop the best treatment plan for their symptoms and circumstances.

Like other types of dementia, vascular dementia shortens life span. Some data suggest that those who develop dementia following a stroke survive an average of three years. As with other stroke symptoms, cognitive changes may sometimes improve during recovery and rehabilitation from the acute phase of a stroke as the brain generates new blood vessels and brain cells outside the damaged region take on new roles. Vascular dementia is caused by reduced blood supply to the brain due to diseased blood vessels.

To be healthy and function properly, brain cells need a constant supply of blood to bring oxygen and nutrients. Blood is delivered to the brain through a network of vessels called the vascular system. If the vascular system within the brain becomes damaged - so that the blood vessels leak or become blocked - then blood cannot reach the brain cells and they will eventually die. This death of brain cells can cause problems with memory, thinking or reasoning. Together these three elements are known as cognition. When these cognitive problems are bad enough to have a significant impact on daily life, this is known as vascular dementia. You can develop vascular dementia after a stroke blocks an artery in your brain, but strokes don't always cause vascular dementia. Whether a stroke affects your thinking and reasoning depends on your stroke's severity and location. Vascular dementia can also result from other conditions that damage blood vessels and reduce circulation, depriving your brain of vital oxygen and nutrients. Factors that increase your risk of heart disease and stroke – including diabetes, high blood pressure, high cholesterol and smoking – also raise your vascular dementia risk. Controlling these factors may help lower your chances of developing vascular dementia.

Vascular dementia symptoms vary, depending on the part of your brain where blood flow is impaired. Symptoms often overlap with those of other types of dementia, especially Alzheimer's disease dementia.

Vascular dementia signs and symptoms include:

- Confusion
- Trouble paying attention and concentrating
- Reduced ability to organize thoughts or actions
- Decline in ability to analyze a situation, develop an effective plan and communicate that plan to others
- Difficulty deciding what to do next
- Problems with memory
- Restlessness and agitation
- Unsteady gait
- Sudden or frequent urge to urinate or inability to control passing urine

Vascular dementia symptoms may be most clear-cut when they occur suddenly following a stroke. When changes in your thinking and reasoning seem clearly linked to a stroke, this condition is sometimes called post-stroke dementia. Sometimes a characteristic pattern of vascular dementia symptoms follows a series of strokes