

Dementia

There are over 55 million people worldwide living with dementia in 2020. The life expectancy of a person with dementia is at 8 to 10 years. The proportion of adults ages 70 and older with dementia declined from 13% in 2011 to 10% in 2019. Three of the most common types of behavioral triggers in dementia patients are confusion, pain or discomfort. Traditional medicine states that “there is no sure way to prevent dementia.”

Dementia symptoms include:

- Impairments in thinking, communicating, and memory.
- Subtle Short-Term Memory Changes. Trouble with memory can be an early sign of dementia. The changes are often subtle and tend to involve short-term memory.
- Difficulty finding the right words. Depression, for instance, is typical of early dementia.
- One typical type of personality change seen with dementia is a shift from being shy to outgoing.
- Apathy, or listlessness, commonly occurs in early dementia. A person with symptoms could lose interest in hobbies or activities.
- Confusion:
- Being repetitive
- The sense of direction and spatial orientation commonly starts to deteriorate with the onset of dementia.

Causes for dementia

1. The possible connection between uncontrolled blood pressure and dementia. Important new studies link high blood pressure, especially in midlife, to an increased risk for dementia later in life.
 - a. Atherosclerosis: Vit. C, Proline, and Lysine will clean out the arteries.

b. Organic, cold pressed omega 6 oils: dissolve out plaque. 85% of plaque is due to adulterated omega 6 oils.

Note: Alzheimer's disease disrupts both the way electrical charges travel within cells and the activity of neurotransmitters. 100 billion nerve cells and 100 trillion connections.

2. Chemotherapy will cause chemo brain (dementia): damages the neurons and other brain structures.

3. **Degeneration:**

a. The cortex shrivels up, damaging areas involved in thinking, planning and remembering.

b. Shrinkage is especially severe in the **hippocampus**, an area of the cortex that plays a key role in formation of new memories. Behavior center.

c. Plaques (beta-amyloid), abnormal sticky clusters of protein fragments, build up between nerve cells. Beta-amyloid comes from a larger protein found in the fatty membrane surrounding nerve cells.

d. A protein called tau helps the tracks stay straight.

e. Tau collapses into twisted strands called tangles. Nutrients and other essential supplies can no longer move through the cells, which eventually die.

4. **Statin Drugs:** shrink the brain by decrease cholesterol levels.

5. **Herbicides, pesticides, and insecticides:** damage neurons, dendrites and other components.

Remedies for dementia and Alzheimer's disease;

1. **Coconut oil:** research from Brown University regulates glucose; Lauric acid helps prevent brain atrophy.

2. Ketones from MCTs Stimulate the Growth of New Brain Cells

“Ketones are energy producing molecules made from fats. Our bodies can make them from stored fat or from special fats known as medium chain triglycerides (MCTs) found in coconut oil. Ketones are produced specifically by the body to feed the brain... Ketones not only supply a superior source of energy to the brain but trigger the activation of specialized proteins called brain derived neurotrophic factors that function in brain cell maintenance, repair, and protection. They also stimulate the growth of new brain cells to take the place of dead or dying cells. This allows healing and repair to take place. Ketones are ordinarily produced when blood glucose levels become low. Since glucose is the body’s primary source of energy, when glucose levels fall, the body starts mobilizing stored fat to produce ketones to maintain adequate energy levels.”

Medium-chain triglycerides are very important for proper functioning of neurotransmitters in the brain and coconut oil is full of them. One particular thing I found out about MCTs is that they work synergistically with Omega-3 fatty acids liberating them from fat stores in the body and allowing them to be utilized by the brain more efficiently.

Coconut oil has high amounts of MCTs (Medium-Chain Triglycerides); it is rich in lauric acid and caprylic acid. Coconut oil reduces oxidative stress; it has powerful anti-fungal, antiviral, anti-microbial and anti-parasitic activity. It supports the immune system, is thyroid stimulating, controls blood sugar, improves cognition, repairs damaged tissues and supports healthy digestion. Coconut oil nourishes the brain; it helps with brain function, the repair and protection of the brain, facilitating proper functioning of neurotransmitters and more.

Nutrients to Enhance Brain Function

- a. Turmeric:
- b. Gingko: short term memory
- c. Bacopa: long term memory
- d. Butter (grass feed): need fats for repair
- e. Food based B-complex (Standard Process Labs): support brain neurology
- f. Animal-Based Omega-3 Fats
- g. Vitamin D₃: supports neurological function
- h. DHA consumption reduced Alzheimer's risk by about a half.
- i. Lowering homocysteine by giving appropriate supplemental levels of homocysteine lowering nutrients, including B6, B12 and folic acid, would reduce risk.
- j. Omega 6 oil: organic and cold pressed
- k. Detox heavy metals, viruses, fungi, glyphosate, chemicals
- l. Take Pure Synergy/increase raw food intake for repair
- m. Take glutathione with NAC
- n. Take Methylene Blue: increases electron transfer; clears fungal infections
- o. Ozone treatments: via the ear/ 3 times a week; oxygenates the brain
- p. Scalar energy treatments
- q. X-39 patch: stimulate stem cell production
- r. Make sure your thyroid is functioning
- s. Methylene Blue: improves electron transfer in the mitochondria
- t. Zymessence: breaks down scar tissue in the brain
- u. Neurotrophin PMG (Standard Process): mediates neuronal repair and establishing functional circuitry
- v. Organic coconut oil: natural anti-inflammatory properties that can help reduce inflammation and promote faster recovery. High concentration of lauric acid in coconut oil contributes to its anti-inflammatory effects, assisting accelerating the healing process.
- w. IverMectin: off label - use increases neurogenesis of the myelin sheath

Ketones help repair the brain of dementia and Alzheimer's disease.

Growth and differentiation factor 10 (GDF10) is a key player in repair mechanisms following stroke. GDF10 stimulates axonal sprouting, which is activated as the brain attempts to overcome the damage.

The Natural Way of Recovering from Brain Damage

The brain repairs itself naturally in three ways - collateral sprouting, substitution of function, and neurogenesis.

21 million to 53 million by 2053

People with Alzheimer's live an average of eight years, but some people may survive up to 20 years.

A diet that is high in fat (60-70% of calories), is almost by definition low in carbs, and this means that when eating a high fat diet, it is likely that one is at least partially and some of the time in a state of ketosis. For those of you who don't know, ketosis is what it is called when the body switches over from burning glucose (the kind of sugar our body uses as fuel) to burning an alternate fuel called ketones, which are made from the breakdown of fatty acids in the liver when glycogen (how the body stores glucose) levels are depleted.

Ketogenic diets also upregulate mitochondrial biogenesis – the process by which new mitochondria are formed inside of cells. So we have a more efficient fuel producing more energy and stimulating the growth of even more fuel engines (the mitochondria) – no wonder people report the effect of a high fat diet being like 'the lights were turned on'. The increase in the

formation of mitochondria is especially beneficial when we take into account that mitochondrial damage and energy production failure are central components of many neurological disorders.

Glutamate (MSG) toxicity can lead to neuronal injury and even death by creating free radicals and inhibiting mitochondrial function.

Docosahexaenoic acid, or DHA, an omega-3 fat, is an essential structural component of both your brain and retina. Approximately 60 percent of your brain is composed of fats—25 percent of which is DHA. DHA is also an essential structural ingredient of breast milk,

DHA levels have been linked to memory loss and Alzheimer's disease. The body can produce DHA from organic omega 6 oils.

Activated vitamin D receptors increase nerve growth in your brain, and researchers have also located metabolic pathways for vitamin D in the hippocampus and cerebellum of the brain, areas that are involved in planning, processing of information, and the formation of new memories.

The National Institutes of Mental Health recently concluded that it is vital that the mother get enough vitamin D while pregnant in order for the baby's brain to develop properly. The child must also get enough vitamin D after birth for "normal" brain functioning. In older adults, too, research has shown that low vitamin D levels are associated with poorer brain function, and increasing levels may help keep older adults mentally fit.

Appropriate sun exposure would take care of these issues, as the sun is irreplaceable when it comes to the body's ability to produce adequate amounts of vitamin D.

Appropriate sun exposure is all it takes to keep your levels where they need to be for healthy brain function. If this is not an option, a safe tanning bed is the next best alternative, followed by a vitamin D3 supplement. It now appears as though most adults need about 8,000 IU's of vitamin D a day in order to get their serum levels above 40 ng/ml, which is the lowest they should be. Ideally, your serum levels should be between 50-70 ng/ml, and up to 100 ng/ml to treat cancer and heart disease. However, it's important to realize that there's no magic dosage when it comes to vitamin D. What's important is your serum level, so you need to get your vitamin D levels tested to make sure you're staying within the optimal and therapeutic ranges as indicated below.

| VITAMIN D LEVELS 25 HYDROXY D | | | |
|--|----------------|---|----------------|
| Deficient | Optimal | Treat Cancer and Heart Disease | Excess |
| < 50 ng/ml | 50-70 ng/ml | 70-100 ng/ml | > 100 ng/ml |

Multiply ng/ml by 2.5 to convert to nmol/litre

Homocysteine Reduction

Homocysteine is an amino acid made from a common dietary amino acid, methionine, that inflicts damage to the inner arterial lining (endothelium) and contributes to many diseases:

Fortunately, B vitamins like folate, vitamins B6 and B12, and other integrative interventions can reduce homocysteine and counteract this destructive process.

Causes of High Homocysteine Levels (Hyperhomocysteinemia)

Many factors contribute to high homocysteine levels:

- Insufficient folate, vitamin B6, vitamin B12, betaine, vitamin B2, and magnesium
- Prescription drug use (including cholestyramine, colestipol, fenofibrate, levodopa, metformin, methotrexate, niacin, nitrous oxide, pemetrexed, phenytoin, sulfasalazine)
- High-methionine diet (including red meat and dairy products)
- Smoking
- Coffee
- Alcohol consumption
- Advancing age
- Obesity
- Genetic variant that causes an impaired ability to metabolize active folate from folic acid

Note: Life Extension believes that the optimal range for homocysteine levels is $<7-8 \mu\text{mol/L}$, much lower than the currently accepted $<15 \mu\text{mol/L}$.

Dietary and Lifestyle Changes

Several dietary and lifestyle changes can help reduce chronic inflammation:

- Avoid methionine-rich foods like red meat and dairy products

- Exercise, as patients in a cardiac rehabilitation program showed a reduction in homocysteine from exercise alone
- Decrease or eliminate alcohol and smoking
- Reduce intake of refined carbohydrates
- Reduce artificial sweeteners: increased insulin increases inflammation
- Reduce intake of adulterated omega 6 oils (safflower, sunflower, canola, soy oil, walnut oil, cotton seed oil), margarine, and pumpkin seed oil.

Integrative Interventions

- B vitamins: Folate, along with vitamins B6 and B12, has been shown in numerous studies to help lower homocysteine levels. The active form of folate, L-methylfolate, can achieve plasma folate levels up to 700% higher than synthetic folic acid and therefore may be more effective at lowering homocysteine levels.

- Betaine (TMG) and Choline: Higher intakes of TMG and choline (which is converted to TMG (trimethyl glycine) in the body) are related to lower circulating homocysteine concentrations.

- N-acetyl L-cysteine (NAC): NAC may displace homocysteine from its protein carrier, which lowers homocysteine and promotes the formation of cysteine and glutathione, a powerful antioxidant.

- S-adenosylmethionine (SAME): Supplementing with SAME promotes the conversion of homocysteine to cysteine, which is then converted to glutathione and lowers homocysteine levels.

- Taurine: Research suggests taurine can block methionine absorption (which is converted to homocysteine in the body) and produce a significant decline in homocysteine levels in 4 weeks.

- Linus Pauling and Matthias Rath, MD: large amounts of vitamin C and the amino acid lysine in relation to heart disease.

The long neglected theory of cardiovascular and heart disease

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