DEMENTIA, ALZHEIMER'S

Alzheimer's disease has become a common type of dementia, now affecting manyk many seniors. It can start as early as 40 years old, but is more common after 85 years old.
Alzheimer's is named after Alois Alzheimer, in 1906, a German neurologist.
The brain is responsible for everything that you are. Every thought that you make, every decision that you make, every action you take.
Cognitive decline or neuro-degeneration is a 20-30 year process.
Currently 55 million people around the world have the disease, expected to triple by 2050.
60 Minutes Australia says 1300 people get Alzheimer's every week in Australia.
The U.S. Keeps good records and reports 7 million people have alzheimer's.

SYMPTOMS

- **Short term memory problem. Person may ask the same question over and over again. Can't remember something that happened recently, but usually they can remember 50 years ago.**
- **Difficulty with everyday tasks that were once second nature. Perhaps you can't remember a recipe you have made all your life.**
- **Confusion about time and place. They can't remember how to go somewhere familiar or what is the day of the week. They might go for a walk, and get confused as to how to get home.**
- **Changes in personality, less initiative. A person who used to be calm and easy going, now is quite anxious or can't remember where they put something and suspects someone took it.**
- **Difficulty joining conversations, quieter at the dinner table, struggle with word choices.**
- **Forgetting names, getting lost, losing things is very common, but here are some <u>early</u> signs:**
  - **Nose can't smell like it used to, it is dumbed down. This is common as you age, or after the COVID pandemic, but sometimes the nose problem can be a brain problem. If you have difficulty in recognizing smells you had no trouble with before eg. Coffee, roses, perfume, bacon.**
  - **Stop caring for something that used to be important. Apathy. The person doesn't care to garden or cook, or watch their favourite tv shows any more. They don't feel sad, they feel nothing, no spark.**
  - **Stops mid sentences, loses train of thought, so talk around the subject, occasional blanks. Subject new words for proper words that become permanent eg. Microwave is food scorcher; tv is idiot box;**
  - **Name as many animals as you can in 60 seconds. Most get 12; if you get to 7 or 8 and keep repeating the same ones, it might be a clue.**
  - **Notice the person is walking down the hall and you recognize their rhythm. Your motor signature. Notice the change in their walking, slower, more cautious. A test is to walk down a hallway, then walk back counting from 100 backwards in 7's – the brain just can't do both at the same time anymore. This is called dual task interference. Another is to call out animal names as you move, two different jobs.**
  - **You are acting out your dreams. You might throw yourself out of bed, you may punch or kick while still sleeping. This is Lewy Body Dementia.**

CAUSES

- **Dementia occurs when we develop cognitive problems that are disabling. Cause can be some disease such as Alzheimer's disease, Lewy Body Disease, Frontotemporal disease (aggressive form of dementia), Parkinsons. This may be preventable when you see the causes.**
- **Women get Alzheimer's more than men. Could it be the lack of progesterone, dictated by the pituitary gland in the brain?**

- **A poor diet, lacking in healthy fats and nutrients.**
- **Lack of Vitamin D or sunshine seems to be cropping up as a cause of just about every disease lately.**
- **Exposure to chemicals. Brain slices of cadavers with dementia and Alzheimers often find high levels of lead and mercury.**
- **Certain medical drugs. See more information following.**
- **In 2006 a study said Alzheimer's was caused by amyloid plaquing in the brain. Most of our funding and studies since then were based on that study. Results never really came from focusing on that target. We do know that the brain shrinks. We also know that people getting alzheimer's are getting younger and younger (in their 20's, 30's and 40's). They have also found a high incidence of hyperinsulinemia (high insulin) and insulin resistence. Treating the amyloid plaquing has not worked.**
- **Only 3% of alzheimer's cases is due to genetics. The rest is due to our lifestyle choices.**
- **Louisa Nicola, Alzheimer's expert, believes metabolic dysfunction is the route cause.**
- **5% of Alzheimers patients have a genetic weakness called APOE E4. If you are unlucky enough to have this marker in your genome, you have a double dose of APOE E4, there is a 9 times greater risk of getting Alzheimer's. However this can be mitigated bychanging the diet (apparently eliminate low junk fat).**
- **Negative energy from satellites, street lights, computers, cell phones, microwave towers, microwave equipment in home and restaurants, lights, televisions, electricity, air pollution, ionizing radiation. Add this to the amount of chemicals we consume in our foods and drinks, drugs, cleansers, cosmetics, hair dyes, nail polish, microplastics, residue from Teflon, pesticides, plastics and micro plastics, herbicides.**
- **Non-nutritive consumption (diet sweeteners) correlates with dementia because of reactive oxygen radicals (chemicals given off that cause changes in energy metabolism and damage in cells. The worst ones are aspartame and sucralose. (monk fruit, stevia, allulose does not appear to cause damage).**
- **Ultra processed foods (fructose, low omega 3's (fish, eggs, chicken have good omega 3), lack of fiber (fiber suppresses inflammation), emulsifiers.**
- **Lack of B vitamins (especially B6 and B12, folate)**
- **Dr. Lundell says lack of sleep can contribute to alzheimer's. Sleep apnea is when you stop breathing and wake up gasping, and it can happen many times within an hour. This keeps you out of the deeper stages of sleep and sleep apnea is quite common. There are machines and devices to help sleep apnea. People with sleep apnea and insomnia have a higher risk of developing alzheimer's. There is also evidence now to tell us that constant use of over-the-counter PM medications (eg. Tylenol pm) can contribute to alzheimer's.**

FOOD THERAPY

Best Foods to eat to feed the brain:

Coconut oil
Olive oil
Fish oil – Omega 3 fatty acids
Salmon or other fatty fish
Blueberries
Broccoli
Oranges
Pumpkin Seeds
Eggs
Coffee
Turmeric
Walnuts, almonds

THERAPIES

In addition to eating the right healthy foods and avoiding junk food, sugar, food dyes, preservatives, and avoiding processed foods:

- **Cleanse/detox the lead, mercury and other heavy metals from the body. You can use homeopathics or herbs for this**

- **Exercise your brain daily. eg. learn something new that requires memory; learn how to play a musical instrument, do crossword puzzles daily, engage in games in the internet, research a subject, learn a new language, take a course in class or online.**

- **Lack of B12 mimics dementia. You must have B12 for your brain. To get B12 from food (eg. Meat) you need the intrinsic factor present in the digestive system which many people are lacking. If you can't assimilate B12 or are vegetarian, the best way to introduce it into the body is using spray vitamin B12, next is sublingual under the tongue, then by capsule. They are always finding new ways to help us obtain these critical nutrients.**

- **There is a problem getting glucose into the brain with alzheimers. Ketones are an alternative fuel to glucose in the brain. It comes from breaking down fat in our body and if you haven't eaten for 12 or more hours since last night's dinner, the ketone levels go up because you are breaking down body fat and you have used up the glucose stored in the liver that was available. The brain can use ketones which don't require insulin like glucose does. MCT oil actually increases ketones within the brain.**
  See Dr. Mary Newport in her youtube videos, who has a husband with alzheimer's and 4 level teaspoons of MCT oil or 7 tablespoons of coconut oil. Taking this much can cause diarrhea, vomiting, feeling sick, and so she cautions to work up to these amounts by initially taking ½ – 1 tsp with your food several times a day. Every 2-3 days bump it up by ½ – 1 tsp. per application. If you are just trying to prevent the disease then perhaps just use half the dose she mentions. The more MCT oil/coconut oil you take, the more ketones available. Some are taking 9 tablespoons a day of coconut oil and getting improvements. If brain cells are dead, the disease is very advanced, you will probably not be able to rejuvenate.
  Years ago there was a nurse on youtube who proved that alzheimer's could be cured by using large amounts of coconut oil which she did daily for her husband and reversed his alzheimer's.

- **Chemicals of various types can cause the synapsing of brain neurons to be erratic, causing many problems. Avoid breathing in chemicals of any kind: smoking, campfire smoke, welding smoke, marijuana smoke; pesticides, herbicides, perfumes, hair dyes, nail polish, household cleansers etc. etc. etc.**

- **Dr. Darren Candow has published 120+ papers about using creatine to help the brain in a stressed environment. This is another supplement that can give hope to alzheimer's. Dr. Darren Candow informs that women 2-3 times more susceptible to Alzheimer's than men. Creatine was discovered in 1832 is now having such profound benefits now. Mostly it is taken by main to increase their lean mass in their muscles. He thinks men should take 5grams a day and women should do 10g or even 15g a day for the brain. Best way is to put the creatine powder into a health drink in the morning, but we also see gummies are available. Some people are genetically deficient in Creatine, and those vegans or vegetarians are at risk because creatine is found in animal based flesh like red meats, seafood and poultry. He says it is a myth that creatine can hurt the kidneys but it can show false positives in your blood work. He says it doesn't make you retain water unless you take too much, too soon and there are companies wanting you to take 20-30g a day which may cause**

water retention for 3-5 days, but should self regulate when you go to maintenance dose of 3-5g a day. He says the best creatine to take is creatine monohydrate which is creatine linked to one water molecule – when you take it into the body the molecule dissolves and is identical to what is being produced in the liver and the brain. The newer forms on the market, he says, hasn't been shown to be safer or more effective. If you have side effects like dizziness, or sicky feeling, divide the dose and take those smaller amounts throughout the day. You can put this in yogurt, tea or coffee – whatever allows you to be consistent. 3-5g is good for muscle; 8-12g with exercise will help building bones; a healthy brain will naturally make its own creatine and may not need creatine on a daily basis, but if sleep deprivation you will need 15-20g and after 21 hr sleep deprivation it was found that 30g was needed. So, the more stressed the brain is, the more creatine it needs. A word of warning – creatine overload will show up in blood tests and the doctor may warn you against using Creatine because it might hurt the kidneys. Do your research to make your decisions.

- **Dr. Berg gives many helpful ideas:**
  - **The drug Lupron is often used as a drug because it is a suppressor of the lutenizing hormone made by the pituitary gland in the brain. That hormone controls sex hormones like testosterone, estrogen, progesterone, and as we get older the lutenizing hormone increases and progesterone really diminishes, especially in women. One study found Lupron also decreased dementia symptoms perhaps because progesterone keeps inflammation very low in the brain cells and it also enhances serotonin and prevents blood brain barrier leakage.**
  - **Melatonin can help suppress lutenizing hormone which indirectly increases progesterone. Jeff T. Bowes thinks men with dementia should be taking 125 mg melatonin before bedtime and women should take 75mg. He himself has taken 500mg a night for over a year with no side effects. In a study using mice, melatonin halted the symptoms of alzheimer's. Taking DHEA (need prescription in Canada), will also help suppress lutenizing hormone. You can get 95% of melatonin from being in the sun because of the infared rays and is best done in early morning or later in the day when the UV radiation is weak.**
  - **Alzheimer's is a lysosome storage problem. Lysosome in a cell helps clean up any garbage. If there is a problem with a gene PSENI, then this autophagy doesn't happen and they find it causes alzheimer's. There are certain drugs (Isopoternol and Clenbuterol) that are used to enhance lysosome production. To trigger autophagy without drugs, you can do fasting and remittant fasting.**
  - **He found that Alzheimer's starts in a compromised liver (fatty liver, diabetes, cirrhosis, metabolic syndrome). After damaging the liver for 20 years, you start to get dementia. To help the liver: Vitamin D supplementation, Milk thistle/dandelion root to cleanse, avoid chemicals and toxins internally and externally, careful of the medical drugs you introduce that the liver must deal with.**

- **Melatonin certain has helped many people as mentioned with Dr. Berg above, but people comment that they also had side effects: restless leg, nightmares, stomach pain, brain fog, dizziness, that it kept them awake instead of helping sleep. There is also a wide swing between taking micro tiny amounts and macro large amounts.**
  Here is what Dr. Michael Breus (the Sleep Doctor) tells us:
  Melatonin is a hormone and hormones affect many many things in the body. Melatonin interacts with all SSRI medication (SSRI is a serotonin specific re-uptake inhibitor, an anti-depressant). So meds like prozac, zoloff, and selexa are medications that will be affected by Melatonin. Melatonin also affects birth control, blood pressure and diabetes medications so you might want to avoid using Melatonin if you take those drugs. Also, if you are making enough Melatonin on your own, and therefore don't need any more, taking Melatonin may produce side effects of nausea, headache, nightmares and especially crazy dreams. The

people that seem to do best with Melatonin are those that use it occasionally for jet lag, seems to work very well. Melatonin does not induce sleep, it affects your rhythm. The appropriate dose is ½ mg to 1 ½ mg (3mg max) which is very hard to find as people are using 10-20 mg. Melatonin is not to be used in children; Mr. Breus says it is a dumb thing to do, you just taught your child it needs a pill to sleep and most children make 4 times the amount of melatonin that their brain needs. However, he does feel it works well for autistic children using 5-7 mg. Melatonin in countries other than Canada and U.S., needs a prescription. FDA doesn't test Melatonin before it hits the shelf, almost no regulation and many have been tested only to find the contents on the label do not match what is found inside.

- **Some medications can trigger dementia. Most people are not told of the side effects these drugs can cause. They just think it is part of the aging process, however it is chemical. 9 medications are mentioned by Dr. William Li:**
    - **At the top of the list is Anti-cholinergic poly pharmacy. Might be the leading cause of medication induced memory loss in older adults. The greatest danger often comes from the accumulation of multiple anti-cholinergic medications taken together without calculating the total burden. A senior might take Benadryl at night for sleep, Oxybutynin for bladder control, and Amitriptyline for nerve pain. The compounded effect of those medications and the burden on the brain raises rapidly. A study published in Age and Aging tracked more than 280,000 older adults and found those with the highest cholinergic burden had 120% higher risk of dementia within 10 years and the majority were not aware they were even taken anti-cholinergic medications. When acetylcholine is blocked from several directions simultaneously, the brain does not simply slow down, the neurons can begin to weaken from underuse, connections may shrink and the brain can settle into a quiet underpowered state, resembling alzheimers. This is often reversible if identified early.**
    - **Anti-psychotic medication. Quetiapine sold as Seroquel; Risperidone sold as Risperdal; and Olanzapine sold as Zyprexa. They were initially approved for serious psychiatric conditions like schizophrenia and bipolar disorder however today they are often given off label to older adults for sleep problems and mild restlessness or agitation associated with dementia itself. Lancet published a study in 2022 followed more than 25,000 adults finding that those given anti-psychotic medication for behavior symptoms were 71% more likely to experience worsening cognitive decline within a year even if they had no history of dementia before treatment. These medications can also increase the risk of stroke, sudden cardiac death and profound sedation that causes falls and hospitalizations. These work by suppressing Dopamine which affects moods, focus, memory and planning. Reduce Dopamine enough and the brain becomes slower and less responsive.**
    - **Paroxetine, sold as Paxil. It is an SSRI, widely prescribed for depression and anxiety. It has strong anti-cholinergic activity. In 2021 a large review published in Frontiers in Psychiatry found those using Paroxetine experienced short term memories, word recall and attention within the first 12 months. Seniors were showing 30% higher risk for cognitive impairment using Paroxetine than using other anti-depressants. Taking Vitamin B12 and B6 will help support mood nutritionally. EMP is sold in Western Canada in health food stores, very effective for anxiety and depression.**
    - **Amitriptyline, sold as Elavil. An older anti-depressant still prescribed these days for nerve pain, sleep problems and preventing migraines. It is a powerful anti-cholinergic drug strongly blocking acetylcholine, the chemical your neurons rely on to communicate with one another and store new memories. A 2015 study published in JAMA Internal Medicine followed more than 3,400 over 65 years old – those using these over a 10 year period had a 54% greater risk of developing dementia. It does not require a high dose, a small nightly dose taken for years can quietly erode cognitive function. Dr. Li mentions Duloxetine or Gabapentin for nerve pain; Melatonin or low**

dose of doxepin for sleep. He mentions newer anti-depressants such as sertraline or escitalopram as being safer. Wholistically we would recommend healthy oils including MCT oil, Borage oil, B Complex, Mineral Complex, Calcium-Magnesium – all aid in nerve rebuilding and brain help. For depression, holistically we look at fixing gut issues and taking some combinations available in health stores, such as EMP.

- **Benzodiazepines. Lorazapam is sold as Ativan. Diazepam is sold as Valium. Alprazolam is sold as Xanax. These are given for anxiety and sleep problems. They work by boosting GABA, the brain's natural calming signal that turns down an overactive nervous system. In 2022 the British Medical Journal followed more than 8,000 seniors for 6 years and found those that used Benzodiazepines for longer than 3 months had a 51% higher risk of developing Alzheimer's Disease. Longer acting Diazepam appeared to be even more problematic because they remain in the body longer and accumulate in fatty tissues including the brain. Learning becomes slower, mental flexibility decreases, many describe 'emotional flatness', brain fog. When these drugs are stopped abruptly, insomnia and anxiety can return with greater intensity, making the medication feel indispensible. Buspirone is a gentlier alternative for anxiety without the brain fog or drowsiness. Natural healing therapies would include finding if there are nutritional deficiencies to correct, and using herbs, homeopathics and anti-anxiety remedies like L-theanine, Holy Basil, Aswaghandha, and sleep helping herbs.**
- **Statins. Simvastatin (Zocor) and Atorvastatin (Lipitor) are some of the most prescribed medicines in the world after age 60. They are often prescribed for lowering cholesterol, and helping reduce heart attacks and strokes. Your brain is close to 60% fat and it uses cholesterol to build the myelin sheath down your nervous system. Whenever we are treating brain deficiencies like ADD, Seizures, Dementia, we always give lots of healthy oils to help the smooth synapsing in the brain neurons. In 2023, Frontiers in Neuroscience reported that adults over 70 who were taking statins for more than 3 years had a 26% higher rate of mild cognitive impairment and the higher the dose, the steeper the decline. Dr. Li says Pravastatin and Rosuvastatin are safer choices because they don't cross into the brain as easily. Natural healing would recommend doing liver cleansing using milk thistle, dandelion root, burdock root over a period of a year to naturally help the liver stop producing high levels of cholesterol.**
- **Bladder drugs. Oxybutynin (Ditropan) is often prescribed for those with sudden urgent need to get to the bathroom. This one blocks acetylcholine, slipping across the brain easily, parking itself where memories are made. Taken month after month, year after, there is danger. The British Medical Journal published that those over 65 who took strong anti-cholinergic drugs like Oxybutynin for more than a year had a 49% greater risk of dementia. Dr. Li says Merbetriq is a safer drug. There are also many natural helpers that can assist, including certain exercises to strengthen the muscles around the bladder.**
- **Proton Pump Inhibitors. Omeprazole(prilosec), and esomeprazole (nexium), Pantoprazole (pantaloc). These shut down acid production in the stomach and are used for heartburn, reflux and the burning feeling after meals. Your stomach needs acid to pull certain nutrients out of your food, especially B12 which protects the wiring of your nerves and your brain. Use these drugs long enough, and the B12 quietly drops, as does magnesium and calcium which are two minerals your brain cells depend on – starve these and you get confusion, misfires, and memory slips. JAMA reported 44% higher risk of dementia looking at over 70,000 aged seniors that used PPI's regularly. PPI's have also been shown to raise amyloid beta levels in the brain (the sticky protein that builds up in alzheimer's disease). Your doctor may have you gentle down to H2 blockers like famotidine (pepcid). You can also use natural methods to heal gut issues with various probiotics and food therapies. Even something like deglycerized licorice root can help coat and ease symptoms.**

- **Benadryl (Diphenhydramine) which is used to help sleep or help a cold. This belongs to a group of drugs called anti-cholinergics which block a brain chemical called acetylcholine. Acetylcholine helps your brain lay down new memories and stay alert through the day. As we age, the brain makes less of it and so a drug that blocks it affects a 70 year old brain more than a 30 year old brain. The hippocampus in the brain is where new memories are formed before they are filed away. Taking anti-histamine nightly can slowly cause the person to lose their edge without ever suspecting what the cause was. Journal of geriatrics reports 54% higher risk of dementia when taking anti-cholinergics. Read the label of anything you take for sleep or has the words PM or night-time or allergy relief in the description – they are often benadryl wearing a different name. New anti-histamines like Loratadine (Claritin), do not cross into the brain the way benadryl does and therefore are safer. Over the counter does not mean 'safe'.**

- **Chemicals of various types can cause the synapsing of brain neurons to be erratic, causing many problems. Avoid breathing in chemicals of any kind: smoking, campfire smoke, welding smoke, marijuana smoke; pesticides, herbicides, perfumes, hair dyes, nail polish, household cleansers etc. etc. etc.**

- **EXERCISE twice a week – aerobic, or neuroathletics helps. Increase the heart rate by quick walking (not running), swimming, active gardening, active housework. Active gardening and housework is where you are actually put out higher energy eg. pulling, scrubbing, lifting etc.**

- **1300 people every week get alzheimer's in Australia. In 2025, 60 Minutes Australia covered a story of using PERISPINAL ETANERCEPT, a TNF inflammatory blocker drug normally used for rheumatoid arthritis, ankylosing spondylitis, plaque psoriasis and juvenile idiopathic arthritis for stroke recovery, alzheimer's and other neurological conditions by ingesting the drug into the spine and then tipping the patient backward to encourage the drug toward the brain. In a non-randomized study in 2010 of 617 patients, more than 80% of participants saw a reduction in spasticity and more than 85% saw improved movement. It is an expensive drug to use and there are warning about using it for a stroke. Serious adverse events are described in studies of patients receiving etanercept for other conditions. Such events include injection site reactions, reactivation of tuberculosis, reactivation of hepatitis B virus infection, congestive heart failure, demyelinating neurologic disorders, vasculitis, and hematologic disorders such as aplastic anemia and pancytopenia. . Testing continues. Neuroplasticity is at the core of reliable stroke recovery treatments. Neuroplasticity is the mechanism that your brain uses to heal itself after a stroke by forming new neural connections. This rewiring happens with repetitive stimulus (or "massed practice"), which helps your brain understand what neural connections need building or strengthening. Your brain likes to be efficient. Whatever you repeatedly practice is what your brain will attempt to get better at. For example, high repetition of any particular movement stimulates the brain to rewire itself and improve movement. This requires effort – much more work than a single injection of Etanercept – but there is a proven track record of effectiveness.**

- **In 2024 two new drugs were approved: Lecanemab and Donanemab. Their job is to clear the sticky amyloid plaque that builds up in the brain. They can't reverse the damage Alzheimer's has done, but in early stages of deterioration it certain can help slow down the decline significantly. Regular infusions are expensive. Side effects called Aria, swelling and tiny bleeds in the brain which needs to be watched with frequent MRI scans. Dr. Yang; Dr. Armen Moughamian**

- **Is Alzheimer's type 3 diabetes? Some think it is. Diabetes and dementia are tightly linked. The brain runs on sugar and it needs insulin to get it. Insulin lets glucose into your cells,**

including your brain cells. When the cells become insulin resistant, the brain is starved of its main fuel even while blood sugar levels are high. Researchers think this energy shortfall in the memory regions is the one reason that high blood sugar tracks with cognitive decline. The body uses insulin degrading insulin to break down insulin - that enzyme also helps clear amyloid, the sticky plaquing enzyme that build's up in Alzheimer's. When there is too much insulin around from years of insulin resistance, that enzyme gets so busy mopping up the insulin that it can't keep up with the amyloid so the plaques accumulate. The lesson here is that protecting the pancreas may also help protect the brain.

Here is a handout regarding Memory and all the natural products that can help especially in early stages of dementia.

REASONS FOR MEMORY LOSS:

1. **Many people have memory loss due to an insufficient supply of necessary nutrients to the brain. The blood goes to the brain and the brain is surrounded by a protective envelope known as the blood-brain barrier which allows only certain substances to pass from the bloodstream into the brain. If the blood is thickened with cholesterol and triglycerides, the amount of nutrient-rich blood that can pass through the blood brain barrier decreases. Over time this can result in the brain becoming malnourished.**

2. **The function of the brain depends upon substances called neurotransmitters which are brain chemicals that act like electrical switches in the brain and ultimately are responsible for all functions of the body. If the brain doesn't have an adequate supply of neurotransmitters or nutrients from which to make them, it begins to develop power failure or short circuits. If your mind goes blank when you are trying to recall a specific fact or piece of information or begins to plus into an irrelevant memory instead, it is likely that a short circuit has occurred.**

3. **Exposure to free radicals can wreak enormous damage to the memory.**

4. **Nutritional deficiencies, especially deficiencies of the B vitamins and amino acids, can account for memory loss**

5. **Alcohol and drug addicts suffer from a great deal of memory loss. Often alcoholics will have 'blackouts', huge memory gaps even when they are awake and conscious.**

6. **Allergies, candida, stress, thyroid disorders, and poor circulation to the brain can contribute to memory loss.**

7. **Low blood sugar (hypoglycemia) may also cause memory loss as the brain requirs a certain level of glucose (sugar) in the blood and it must be kept within a pretty narrow range or you will have feedback letting you know it is in disorder. The feedback will be brain function and memory.**

Here is a list of all the various nootropic remedies that are found in memory complexes and what they are used for. There is no one product that has everything in it. Usually there is a combination of 4 – 6 remedies.

Choline - Phosphatidylcholine

The vitamin Choline supplement is often used to treat high cholesterol, improve memory and protect the liver.
Choline supplements are often taken as a form of 'smart drug' or nootropic, due to the role that the neurotransmitter acetylcholine (acetylcholine is a neurotransmitter in the nervous system) plays in various cognition systems within the brain. Choline is a chemical precursor or 'building block'

needed to produce the neurotransmitter acetylcholine and research suggests that memory, intelligence and mood are mediated at least in part by acetylcholine metabolism in the brain. The compound's quaternary amine renders its lipid insoluble which might suggest it would be unable to cross the blood-brain barrier, however, despite choline's lipid insolubility, a choline transporter exists that allows transport across the blood-brain barrier. The efficacy of these supplements in enhancing cognitive abilities is an ongoing debate.

Supplementing with Choline:

Dietary supplement is lecithin, usually from soy or egg yolks. Phosphatidylcholine is also in pill or powder form.

Supplementary choline is available as choline chloride which comes as a liquid due to its hydrophilic properties. Choline chloride is sometimes referred to as a supplement because phosphatidylcholine can have gastrointestinal side effects.

Foods High in Choline:

100 g (3.5 oz) beef liver - 418 mg
1 large whole egg - 112 mg
3.5 oz patty ground beef (80% lean) - - 81mg
3/4 cup cooked cauliflower pieces - - 62mg
1/2 cup cooked Navy beans - - 48mg
100g (3.5oz) tofu - 28 mg
1/2 cup sliced almonds - 26 mg
2 Tbsp peanut butter - 20mg

Dosage of Choline Needed:

425 - 550 mg daily for adults.
Infants: to 6 months old: 125 mg 7-12 mo old: 150 mg
Children 1-3 yr old: 200 mg 4-8 yr old: 250 mg
Boys: 9-13 yr: 375 mg 14-18 yr: 550 mg
Girls: 9-13 yr: 375 mg 14-18 yr: 440 mg
Men: 550 mg
Women: 425 mg
Pregnant women: 450mg Lactating women: 550 mg

Contra-Indications

Maximum intake for adult is 3.5 grams (3500mg daily before side effects: low blood pressure, diarrhea, fishy body odor, tightness in throat or chest, chest pain, hives or rash, loss of appetite, breathing difficulty.

Choline is a precursor to trimethylamine which some are not able to break down due to a genetic disorder. Those with this disorder may suffer from a strong fishy or otherwise unpleasant body odor due to the body's release of odorous trimethylamine. Those with this disorder are advised to restrict intake of foods high in choline to help reduce odor.

Phosphatidylserine

Like Phosphatidylcholine, Phosphatidylserine has proven effective for memory problems. It works on the brain cell membranes and people are also using it for depression and moodiness.
Stimulates brain to produce dopamine and acetylcholine. May therefore also help with ADD.
For stress, aging, our wonderful north american diet that is lacking in nutrition.
Sometimes even works where Phosphatidylcholine doesn't.

Alpha Lipoic Acid

This is a natural compound with antioxidant properties. It is a sulfur containing fatty acid found in every cell of the body. Many have used this for weight loss, diabetes, memory loss, skin health, reducing oxidative stress. It is present within mitochondria, the powerhouses of cells. It is needed for digestion, absorption and creation of energy. It helps enzymes turn nutrients into energy. The body can only produce this in small amounts so many take it as supplements. Oxidative stress occurs naturally with age so this may be of benefit. It is a universal antioxidant, eliminating free

radicals in water and fatty tissue. It is most commonly used to treat nerve damage caused by diabetes. It may also help retard cataracts and neuro degenerative diseases including Parkinson's and Alzheimer's.

N acetyl Lysteine

Oxidative stress, neuroinflammation and neurogenesis are commonly implicated as cognitive modulators across a range of disorders. N-acetylcysteine (NAC) is a glutathione precursor with potent antioxidant, pro-neurogenesis and anti-inflammatory properties and a favourable safety profile. A systematic review of the literature specifically examining the effect of NAC administration on human cognition revealed twelve suitable articles for inclusion: four examining Alzheimer's disease; three examining healthy participants; two examining physical trauma; one examining bipolar disorder, one examining schizophrenia, and one examining ketamine-induced psychosis. Heterogeneity of studies, insufficiently powered studies, infrequency of cognition as a primary outcome, heterogeneous methodologies, formulations, co-administered treatments, administration regimes, and assessment confounded the drawing of firm conclusions. The available data suggested statistically significant cognitive improvements following NAC treatment

Vinpoecetine

This is a man-made chemical similar to a substance found in the periwinkle plant (Vinca minor). Vinpocetine might increase blood flow to the brain and protect brain cells (neurons) against injury. People use vinpocetine for memory, dementia, stroke, hearing loss, and many other conditions.

L Glutamine

L Glutamine is an amino acid said to improve memory, learning and focus. It also reduces anxiety. And inflammation of the colon/bowel. Many of our brain problems are a direct link to digestive disorders.

Huperzia Serrata

This is the plant also called Chinese club moss, that gives us the Huperzine A. It seems to help treat diseases that interfere with memory and thinking. Huperzine A has been shown to increase bioavailable levels of acetylcholine by inhibiting the enzyme that breaks it down, acetylcholinesterase. This fosters an ideal environment to form new neural connections and improve memory retention. Note that while huperzine A is extracted from huperzia serrata, they are not the same ingredient. Look for supplements that specifically contain huperzine A.

L Asparagine

This works for protein synthesis, playing a role in the formation and stability of protein structures. Necessary during periods of growth.

Silicum

Silicium is derived from silica. Foods high in silica are herb horsetail. It is said silica is an antidote to aluminum toxicity which they find in alzheimer's and cognitive decline. One should always reduce lead, aluminum, and mercury toxicity and this can also be done with homeopathy.

a-GPC Cl-alpha-glycerophorycholine – aka Alpha GPC

This naturally occurs in the body as a precursor to acetylcholine, one of the key neurotransmitters in the brain's neural network. As a supplement, this compound rapidly crosses the blood-brain barrier and helps promote the synthesis of acetylcholine. In addition, alpha GPC encourages the development of cell membranes in the cerebral cortex, or "gray matter," for improved mental processing.
Use to improve energy, long term memory, problem solving capabiliies.

Cytidine 5-diphosphocholine aka Citicoline

A naturally occurring nonomucleotide, has beneficial effects on memory function. Helps enhance phosopholipid levels, supporting memory and brain health over time.

White Mulberry Leaf(Morus Alba)

The extract is used to increase NGF levels, leading to increased brain cell growth. Enhances brain function and memory.

Vitamin B6 (pyridoxine) and Vitamin B12

Pub med says Vitamin deficiencies influence memory function. B6 is involved in the regulation of mental function and mood. Poor B6 is commmon among older people. Vitamin B12 is also essential to mental/brain function and difficult to absorb if the digestion is not functioning proeprly. B12 is derived from eating meat, but using B12 spray will bypass the digestion for those who have a problem. Foods high in B6 are chickpeas, tofu, beef liver, lentils, bananas, spinach, salmon, and peanuts, milk, avocado, ricotta cheese, tuna, eggs, chicken liver, beef

Taurine

An amino acid naturally produced by the body. Compelling evidence. Used for cognitive function, memory and focus. Alzheimer's.

Creatine

A compound naturally found in our bodies. Supplementation may benefit brain function, memory, reasoning, intelligence. Most people in favour of using creatine recommend doing 5,000mg twice a day. You can get gummies, or put the powder into smoothies. A word of warning, when doing blood tests, the lab will report excess creatine in the bloodwork and the medical doctor will tell you to stop because you may hurt your kidneys. Do your research on this so you are comfortable with your decision.

Grape seed Extract

Derived from grape seeds, has been used for many things. For memory is is used for anxiety, attention, mood, problem solving, long term memory and short term memory.

Omega 3

EPA and DHA are Omega 3 fatty acids, usually from fish oil. Addresses attention, mood, learning, long term memory, problem solving, short term memory. If you want to get this from food sources, try salmon. Flaxseed oil has omega 3, 6 and 9.

Coconut oil and MCT oil

You will need to take quite a bit of this. Work up (over a period of 3 weeks) to 3 Tbsp MCT oil or double that of Coconut oil daily.

Hericium Erinaceus

This has been used for thousands of years by Buddhist monks to increase focus during meditation, hericium erinaceus helps improve cognition by enhancing activity of choline acetyltransferase, which is responsible for the synthesis of acetylcholine in the body. This brain-boosting mushroom also helps promote production of nerve growth factor (NGF), a protein that plays a crucial role in maintaining and regenerating neurons.

Bacopa Monnieri

Bacopa is an herb commonly used in traditional Ayurvedic medicine for its positive influence on memory and focus. Studies indicate the bacoside compounds contained in this potent plant cross the blood-brain barrier and, like huperzine A, help boost levels of acetylcholine by limiting its breakdown by acetylcholinesterase. In this way, bacopa monnieri helps generate new neural pathways.

Ginkgo Biloba

Ginkgo is one of the world's oldest tree species, has been used for thousands of years in traditional Chinese medicine for its neuroprotective effects. Its root bark and leaves are rich in ginkgolide compounds, which help promote higher concentrations of acetylcholine in key regions of the brain responsible for decision-making and short-term memory recall. They are also beneficial for cerebral blood circulation. You can grow this in many places in Canada. Gingko biloba is a strong antioxidant and protects brain cells from free radiacal damage, improves blood flow, and supplies oxygen to the brain.

Rhodiola rosea

An herb used to stimulate nervous system, help anxiety, fatigue, and improves learning and memory function.

Ashwaganda (Withania somnifera)

An herb that improves memory and cognition, and is antistress, antioxidant, anti-inflammatory. Good for adrenal stress.

Lions Mane

A mushroom supplement (which you can also grow at home). Said to stimulate production of nerve growth helping brain cells grow, enhances memory. Can easily get in powder form and add to muffins, breads, smoothies.

Cordyceps sinensis

A fungus that lives on caterpillars used as a traditional Chinese medicine, used for preventing and improving impaired learning and memory.

Acetyl carnitine

Acetyle carnitine increases nerve growth factor so you can regrow brain cells.

Acetyl carnitine arginate

Acetyl carnitine arginate neutralizes brain protein which is believed responsible for Alzheimers. It protects your neurons against the brain cell damage caused by beta amyloid plaque.

Uridine

Uridine supports regrowth of neurites which prevents memory loss whie improvinmg memory retention. It is a natural substance found in foods. We get uridine mainly from milk, is a good source of cytidine which creates phosphatichylcholine, a precursor for the neurotransmitter required for proper memory function and muscle coordination.

Gota Kola

Gota kola stimulates neurite growth in key areas in the brain. This plant is native to India and is used widely in Ayurvedic medicine. It has been used for nervous disorders like senility and epilepsy, and as a brain tonic to improve memory.

Rhododendron caucasicum

This is also known as the 'Snow Rose" - it grows in altitudes from 10,000 – 30,000 feet in the Caucasus Mountains of the Republic of Geogia (formerly part of the Soviet Union). Many think this plant is why the people of Geogia have such longevity. Foreign hospitals have used this plant to treat heart disease, arthritis, gout, high cholesterol, blood pressure problems, depression, neuroses, and concentration problems. It has proved to be an excellent free radical scavenger. It protects and treats the brain, bolsters the cardio system and increases blood supply to the muscles and especially the brain.

Lycopene

This is a powerful antioxidant found in tomatoes, pink grapefruit, apricots, and watermelon. Studies have show diets high in lycopene may reduce the risk of cancer, especially tumors in the prostate, colon, stomach, lung or mouth. Also may help prevent cataracts and macular degeneration.

Probiotics for Brain, transmission

To help increase Dopmine:
Lactobaccilus plantarum, Lactobacillus rhamnosus, Saccharomyces boulardii
To help Increase GABA production
L. Rhamnosus
L. paracasei
L. brevis
Lactococcus lactis
To help increase Acetylcholine:
Lactobacillus plantarum, Bifobacterium longum
To help increase Serotonin:
Lactobacilluls rhamnosus, Bifidobacterium infantis, Lactobacillus helveticus

BEST DIET TO SUPPORT MEMORY FUNCTION:

Mediterranean diet is touted as the best diet for brain health, mostly because of the olives, olive oil, fish, vegetables and basically natural foods. Basically a diet with lots of raw foods. Eat something raw at each meal. Perhaps fruit at breakfast. Salads with lunch and dinner.

- **Eat free range eggs and/or fish on a daily basis**
- **Green leafy vegetables, at least six servings per week**
- **Other vegetables, at least one serving per day - but join in on that brainy group by eating more!**
- **Berries, at least two servings per week**
- **Nuts (raw is best), at least five servings per week**
- **Olive oil and coconut oil are the best oils for your diet. The brain needs a lot of oil, it is made up mostly of cholesterol. Avocado oil may also be used. MCT oil is very good and you need less of it than coconut oil.**
- **Whole grains, at least three servings per day**
- **Fish, not fried, at least once per week**
- **Beans, at least four meals per week**
- **Poultry, not fried, at least two meals per week**
- **Other important foods: brown rice, legumes, navy beans, millet, soybeans, tofu, raw nuts, wheat germ, whole grains, brewer's yeast.**
- **Wheat and dairy may be a contributing factor. To test yourself, eliminate these for a month and see if memory improves, if not then slowly add them back into the diet.**
- **Bee Pollen is considered a food but do not eat it if you are allergic (get rashes, wheezing etc). Easy to sprinkle this on cereals and salads.**

- **Avoid refined sugars, these 'turn off' the brain.**

Other:

- **Practice holding your breath for 30 seconds every hour for 30 days. This improves mental alertness.**
- **Keep the mind active, use the facilities to keep them working. Daily crossword puzzles help. Also, learn new things to force the mind to remember things such as learning a new language.**
- **Take up new hobbies that require you to learn new skills.**
- **Chemotherapy may cause debilitating fatigue, anemia.**
- **Watch iron deficiency or overload levels, neither is good.**
- **Avoid eating bran for fiber which can interfere with iron absorption.**
- **Avoid coffee and tea including green tea.**
- **Avoid oxalates which inhibit iron absorption if it is a problem: almonds, cashews, chocolate, cocoa, kale, rhubarb, soda, sorrel, spinach, chard, most nuts and beans.**
- **Taking Vit. C enhances iron absorption.**
- **Keep the brain working by doing crosswords, suduko, studying new subjects that require you to memorize eg. New languages, learning to read music.**
- **Detox any chemicals that may have acquired in the brain: Aluminum, Lead, Cadmium, Mercury. Herbs and homeopathy can be used as remedies.**
- **HGH (human growth hormone) has been shown to improve brain function.**

Example of Daily Supplements to Support Brain Function:

- **2-3 caps a day of Omega 3 fish oil**
- **4 Tbsp MCT oil or 7 Tbsp coconut oil daily. Work up to this amount.**
- **5,000g Creatine for males; 10,000g a day for females**
- **1,000mg Niacinamide 3 times daily. 5% of people will get elevated liver enzymes from taking this, but will return to normal within 2-3 weeks once niacinamide supplement is stopped.**
- **Vitamin B12 (spray) and B6**
- **4,000 IU Vitamin D3**
- **Manganese**
- **Calcium-Magnesium and multi mineral supplement for brain and nerves**
- **B Complex (50 mg twice daily), B5 (Pantothenic acid) extra 50 mg three times daily. B3 (Niacin) 50 mg three times daily - don't take niacin if you have liver disorder, gout or high blood pressure**
- **3,000-10,000 mg Vit. C in divided doses**
- **400 IU Vitamin E, working up to 1,200 IU daily. This has a thinning effect on the blood, may not want to take it if you are on coumadin or blood thinners, or you may want to decrease your blood thinners.**
- **50-80 mg Zinc daily. Do not exceed 99mg daily.**
- **Lecithin: 1 Tbsp three times a day before meals (or 1,200 mg capsule three times a day before meals)**
- **Amino acids: L Glutamine, and L-phenylalanine, plus L-aspartic acid. To be taken with water on empty stomach. Do not take L-phenylalanine if pregnant, nursing, or suffering from panic attacks, diabetes, high blood pressure or PKU.**
  Up to 100 mg L Tyrosine per kg of body weight daily. Take on empty stomach with 1,000 mg Vit.C and 50 mg Vit. B6.

Optional:

- **100 mg Coenzyme Q10**
- **DMG (dimethylglycine)**
- **Melatonin (.5 - 3 mg taken 2 hr before bedtime)**

NOTE: Often you can acquire a supplement for memory that has many of the above built into the product.

HOMEOPATHY

Forgetfulness:

- **Anacardium is a good choice when the person is very forgetful. He forgets what he has seen and suddenly forgets names of people surrounding him. Memory progressively gets bad. Along with forgetfulness, the person also shows irritability, anxiety, anger with violent behavior and use of foul language. Next remedy Alumina is also a valuable selection for forgetfulness in Alzheimer's disease.**
- **Alumina is selected when memory is weak or entirely lost. The person has cloudiness in the mind, he is slow to answer and lacks judgment power. Absent mindedness also prevails. He also makes mistakes while writing and speaking.**

Short Term Memory Loss:

- **Cannabis Indica is indicated where a person forgets frequently while he is doing a specific task or soon after doing it. He forgets what he has just done, or what has just happened, or what he has just said or read. He also forgets what he is about to do, what he is about to write. Also forgets frequently while talking. While speaking a sentence, he forgets what he is about to say, forgets the words in his mouth. Sudden loss of ideas and speech also appears. He begins a sentence but cannot finish it. There is inability to recall ideas even after exerting the mind to do so.**

Loss of memory for names of well known people and place:

- **Medorrhinum. He forgets names of close friends and family members. In extreme cases, he even forgets his own name. Medorrhinum is also indicated when a person finds it difficult to carry on a conversation. He gets lost while conversing and a question has to be repeated. He is unable to collect ideas and gives incorrect replies.**

Difficulty reading and writing from memory weakness:

- **Lac Caninum is helpful when the person is forgetful while writing. He makes use of wrong words while writing, doesn't remember appropriate words. He makes spelling mistakes, omit letters in words. While reading or writing, he is unable to concentrate. Person needing Lac Caninum seems hopeless about recovery. The person is sure that the disease is incurable and recovery is impossible.**
- **Nux Moschata is prescribed for sudden vanishing of thoughts while reading or writing. Person uses wrong words in reading or in writing. He frequently makes a wrong selection of words. He may also show marked drowsiness, absent- mindedness and indifferent behavior accompanying the above symptoms.**

Dealing with accompanying depression and emotional imbalance:

- **depression and emotional imbalance are Ignatia, Kali Phos and Aurum Met (gold).**
- **Ignatia is the best choice when a person experiences sadness, weeping spells, and desire to be alone. It is also indicated for mood swings.**
- **Kali Phos can help when a person has marked exhaustion, fatigue, lassitude, and weariness along with Alzheimer's disease. Kali Phos is also indicated for gloominess, despondency, sadness, and a dull mind accompanying Alzheimer's disease.**
- **Aurum Met is useful when depression with suicidal tendencies persists in Alzheimer's disease. A person requiring Aurum Met also feels he is worthless and of little importance, he feels life is a burden. Even the slightest contradiction is unbearable and leads to acute anger outbursts in such persons.**