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## Review Article

# Coconut Oil As A Remedial Treatment For Alzheimer's Disorder

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### ABSTRACT

The coconut tree (*Cocos nucifera*) which is also known as the "Tree of Life" has its own values in each part of the tree and coconut oil painting is more prestigious among them. The unique chemical composition of coconut oil painting amended with medium chain adipose acids (MCFAs) has led to the disquisition of these nutritive and remedial influences. Unlike the long-chain adipose acids (LCFAs), the MCFAs generated from the digestion of medium-chain triglycerides (MCTs) have a specific pathway for the metabolism, as they bypass the lymphatic system and enter the liver directly through the portal tone. Due to similar distinct attributes in immersion and metabolism, MCTs are more readily able to form ketone bodies than other triglycerides. These ketone bodies are a competent energy source for the smarts, especially those having cognitive impairments like Alzheimer's complaints (announcement). announcement is a neurodegenerative complaint characterized clinically by accelerating faults in memory and behavioral changes. circumstance of Cardiovascular conditions (CVD) with elevated LDL situations, hypertension, Type 2 diabetes, rotundity, and insulin resistance are some crucial threat factors that are responsible for the added frequency and prevalence of announcements. There's sufficient substantiation to prove that MCTs in coconut oil painting are metabolized and absorbed in such a way that retards the inflexibility of these physiological threat factors. either, coconut oil painting is endowed with numerous polyphenolic composites that serve as antioxidants by combating oxidative stress and inflammation, which in turn downregulates the etiology of the announcement. But depending on the different processing conditions applied in the birth ways of coconut oil painting, variations in antioxidant capacity can take place.(1)

### INTRODUCTION

Alzheimer's complaint (announcement named after the German psychiatric Alois Alzheimer) is the most common type of madness and can be defined as a sluggishly progressive

neurodegenerative complaint characterized by neurotic pillars and neurofibrillary befuddlements (Figure 1) as a result of amyloid- beta peptide's (A $\beta$ ) accumulation in the most affected area of the brain, the medium temporal lobe and neocortical

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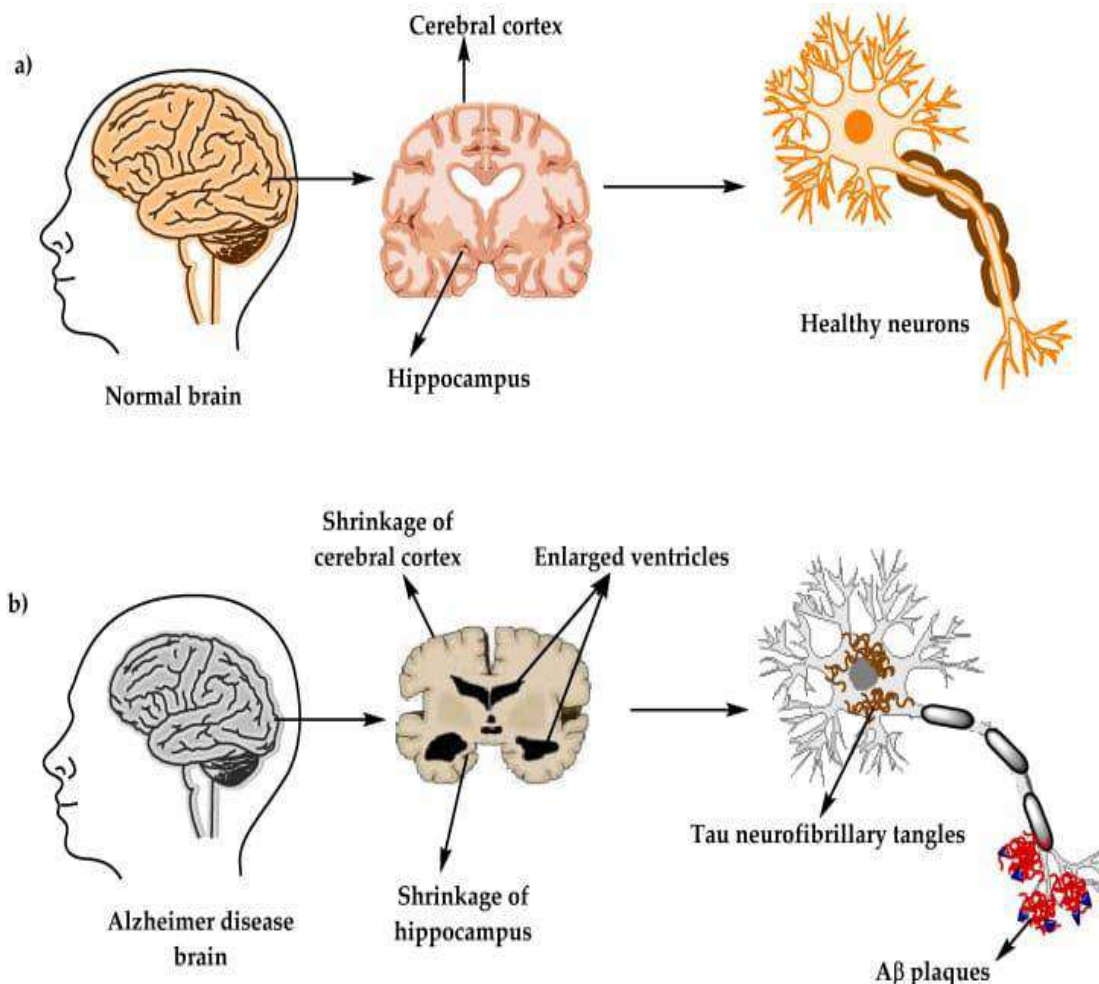
structures. Alois Alzheimer noticed the presence of amyloid plaques and a massive loss of neurons while examining the brain of his first case who suffered from memory loss and change of personality before dying and described the condition as a serious complaint of the cerebral cortex. Emil Kraepelin named this medical condition Alzheimer's complaint for the first time in his 8th edition psychiatry). Progressive loss of cognitive functions can be caused by cerebral complaints like Alzheimer's complaint (dementia) or other factors similar as infections, abnormalities in the pulmonary and circulatory systems, which causes a reduction in the oxygen force to the brain, nutritive insufficiency, vitamin B12 insufficiency, excrescences, and others. At present, there are around 50 million dementia cases worldwide and this number is projected to double every 5 times and will increase to reach 152 million by 2050. dementia burden affects individualities, their families, and frugality, with estimated global costs of USD 1 trillion annually. At present, there's no cure for Alzheimer's complaint, although there are available treatments that just ameliorate the symptoms(2) The preface dementia shows the accumulation of senile plaques, neurofibrillary tangles, brain atrophy, and indigenous cerebral hypometabolism with low cerebral metabolic rates of glucose Alzheimer's complaint( dementia), a progressive neurodegenerative complaint affecting the geriatric population, results in unrecoverable loss of neurons and loss of intellectual capacities similar as memory, language and logic, and ultimately impedes social and occupational functioning posing a great burden on the caregiver(16). Coconut oil painting oil is a vegetable oil painting pulled from coconut 41.2 per 100,000 persons, independently. The subjects who are suspected as dementia cases can be detected substantially via the diminutions

palm (*Cocos nucifera*L.). Coconut is the most widely grown and used palm in the world with roughly 12 million hectares in civilization (FAO, 2014) serving as a major source of income(3). typical neuropathology pointers of advertisement are the presence of intracellular neurofibrillary tangles (NFTs; caused by hyperphosphorylation of mortal microtubule-associated protein (Tau) extracellular senile plaques. According to the Alzheimer's Association, the prevalence of dementias will escalate threefold in the coming 50 times and it can be considered as a piece of substantiation that proves the inflexibility of this complaint. Short-term memory impairment is usually the first clinical manifestation of AD in patients, and increases in a patient's glutamate level, oxidative stress(18) Alzheimer's complaint (dementia) is a type of neurodegenerative madness that affects 5.5 million people in the United States alone. Cognitive symptoms of the dementia include agnosia, habitual memory loss, visual/ spatial impairment, and disorientation. Behavioral symptoms include perversity, word reiteration, and personality changes. The gradational destruction of synapses and dendrites is also reflective of dementia development. There are two main types of dementias, though the goods of the complaint are analogous. The beforehand-onset dementia is one type that's characterized by madness onset at a fairly youthful age (before 65 times of age) and positive family history of madness. Domestic dementia, early-onset dementia, and autosomal dominant dementia are some languages that are used to describe these realities. If we use the strict criteria of the early-onset dementia at age < 61 times, the frequency is in brain regions, especially responsible for memory and literacy, on glamorous resonance images and elevated immersion of radioligands



that spot unusual amyloid grounds on positron emigration tomography checkup. Intracellular neurofibrillary befuddlements, as well as extracellular accumulation of pillars composed of amyloid  $\beta$ (A $\beta$ ), are the main pathological emblems

of the announcement. colorful threat factors like age, life and salutary patterns, terrain, genetics, and different metabolic conditions can increase or drop the development of announcement in each existent (1)

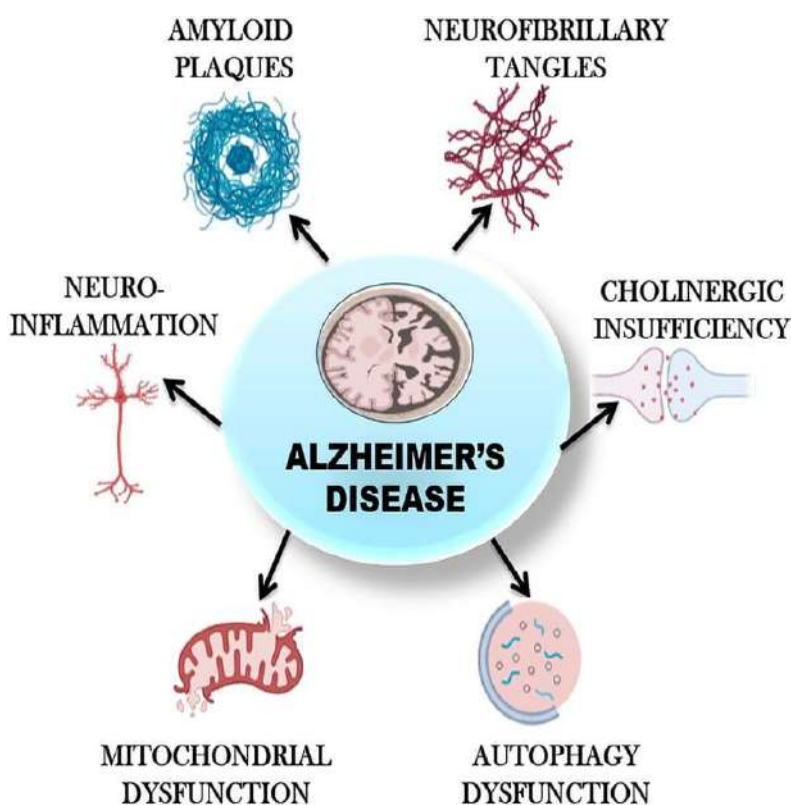


### **PATHOPHYSIOLOGY-**

The different factors responsible for Alzheimer's disease Amyloid pillars and hyperphosphorylated tau are the major bones Extracellular amyloid  $\beta$  deposit leads to the generation of senile pillars. Other factors like neuroinflammation, oxidative stress, cholinergic insufficiency, mitochondrial dysfunction and autophagy dysfunction also play a major part in the complaint progression, the hyperactive glial cells including astrocytes and microglia upon commerce between A $\beta$  and tau. Microglia and astrocytes are the major cells in the brain responsible for seditious responses. Due to

the activation of glial cells colorful pro-inflammatory brokers are released which rotund further seditious motes at the point of injury leading to an inflated seditious response in the brain called neuroinflammation. The dysregulation of colorful pathways in the brain and frame leads to hyperactivation of Glial cells and other seditious cells in the brain which contributes to the neuroinflammatory pathway of the announcement. medicines like PPAR $\gamma$  agonists, COX impediments, vitamin E, vitamin C, curcumin, and catechin act via colorful mechanisms to reduce the neuroinflammatory

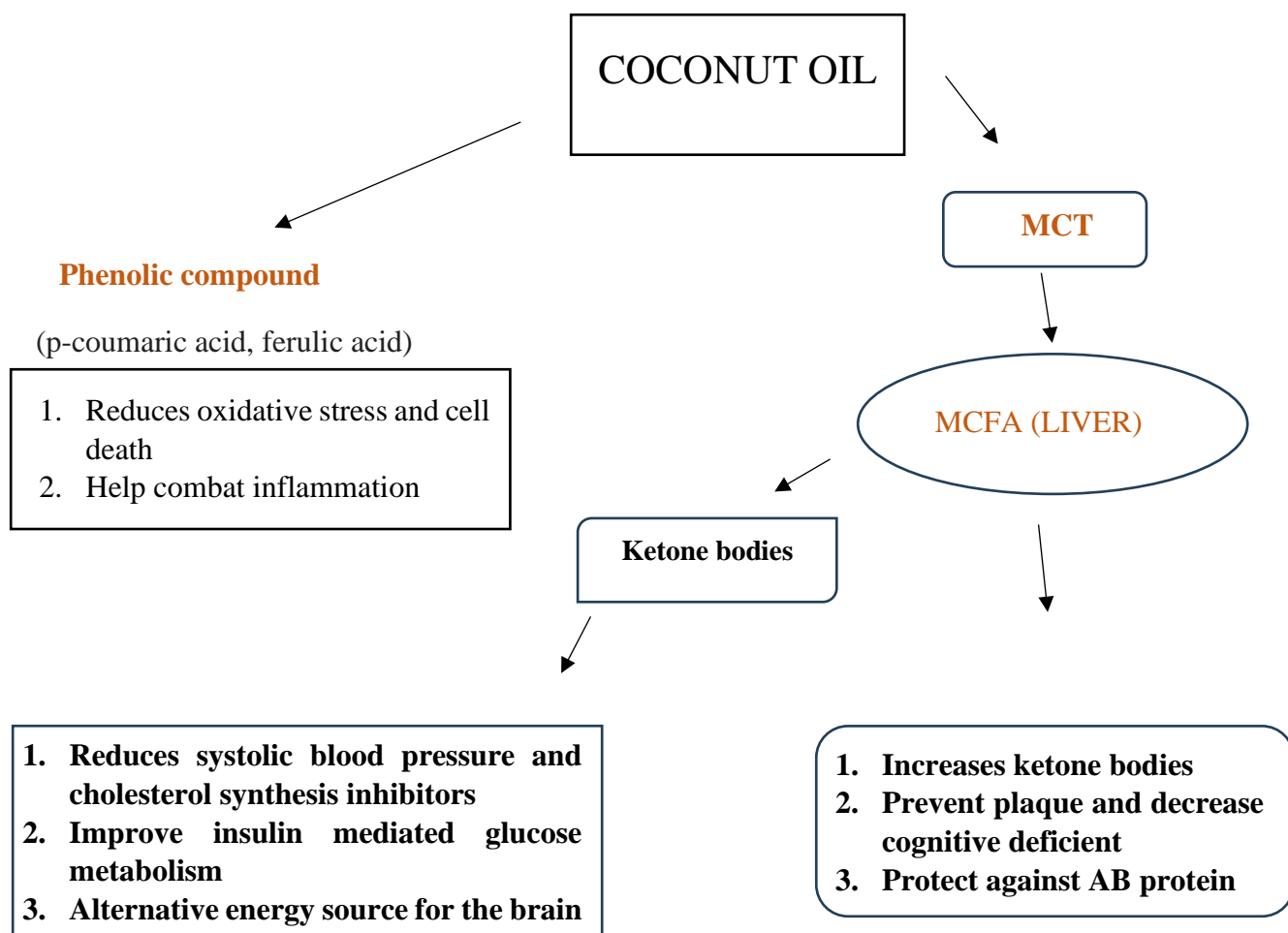
pathways and , therefore, help the progression of announcement (4)



### EFFECT OF COCONUT OIL: ALZHEIMER

Diets containing MCFAs are considered to be safe for mortal health due to their advantages over vascular diseases. The donation of MCT to lipid metabolism implies these benefits and it links the impact of MCT with announcement pathology. thus, the distinct characteristics in immersion, metabolism, and digestion of MCT are the distinguished reasons behind the reduction of announcement threat factors. Metabolism of MCFA, with the backing of enzymes in slaver and gastric authorities, requires a short time and moderate energy than the other adipose acids in diet which breaks down with pancreatic fat-digesting enzymes. The salutary part of MCFA in lipid metabolism and control of some conditions like; cardiovascular conditions and announcement are delved in numerous studies while emphasizing the involvement of corrosiveness acid conflation. The amphipathic corrosiveness acids are simple

end products of cholesterol metabolism and those are known as primary corrosiveness acids whereas secondary corrosiveness acids are produced by gut microbiota. The relationship between MCFAs and the depressed pathology of announcement can be explained by the part of MCFAs in reducing the serum cholesterol situations which is considered as a threat factor for the announcement. MCFAs engage in the serum cholesterol-lowering process through a partial increase in the excretion of corrosiveness acids and substantially this occurs via the decline of immersion in the small bowel (1). One eventuality proposition is that the medium-chain triglycerides (MCTs) present in coconut oil painting can give an indispensable form of energy for brain cells when glucose metabolism is bloodied in Alzheimer's complaint. The MCTs break down into ketones, which may give an indispensable energy source for brain cells and help ameliorate cognitive function (5).



- **Antioxidant effect of virgin coconut oil**  
painting Abecedarian Coconut oil painting (VCO) has captured a lot of interest because of its possible part in enhancing body defense against oxidative stress. VCO is different from ordinary coconut oil painting (CO) as the former contains a lot further biologically active factors such as polyphenols, tocopherols, 2 substantiation-grounded reciprocal and Alternative Medicine sterols, and squalene. It has been established that the antioxidant exertion in VCO is more advanced than meliorated CO. VCO has been shown to enhance antioxidant enzyme exertion and inhibit lipid peroxidation in rats. VCO has a high chance of phenolic acids, and these are phytochemicals, occasionally also appertained to as polyphenols Marina et al. Phenolic acids are honored for their antioxidant parcels. p- Coumaric acid, ferulic acid, caffeic

acid, and catechin acid are the major phenolic acids set up in CO. VCO is also rich in active polyphenol composites, which are strong impediments to lipid peroxidation. Polyphenols are known for their neuroprotective conduct, especially in precluding the neurotoxic goods of  $\beta$ -amyloid. The salutary goods of VCO have been extensively delved. VCO has been reported for its excellent antioxidative, anti-inflammatory, and antistress parcels. VCO increased the product of antioxidants in the brain, videlicet SOD, CAT, GSH, and GPx. The over-regulated antioxidants served as protection against lipid peroxidation (MDA) by oxidative stress (NO). The collaborative goods of these two factors would ultimately help or delay neurodegeneration. The promising issues of this study explosively indicate the possible use of VCO, not only as

neuroprotective agents for those suffering from neurodegenerative conditions but also as brain food (supplements for the health populations). VCO is well-known as an antioxidant and anti-inflammatory natural emulsion, VCO has an implicit precautionary effect for memory improvement, anti-excitotoxicity, and antioxidants in the announcement model. Coconut oil painting (CO), deduced from the coconut fruit, has been honored historically as containing high situations of impregnated fat; still, near scrutiny suggests that coconut should be regarded more positively. Unlike most other salutary fats that are high in long-chain adipose acids, CO comprises medium-chain adipose acids (MCFA). MCFA are unique in that they are fluently absorbed and metabolized by the liver, and can be converted to ketones. The difference between MCFA and LCFA is the length of the adipose acid carbon chain. LCFA contains fourteen or further imitations, whereas MCFA has a chain length of six to twelve imitations. The length of the carbon chain determines the physical and chemical parcels of the fats, as well as their metabolism in the mortal body MCT or MCFA, can act as a non-carbohydrate energy source by enhancing the conformation of ketones or ketone bodies in the body which are AcAc, 3- b-hydroxybutyrate( 3HB), and acetone (6)

- **Effect of coconut in the treatment of diabetes and hypertension**

Coconut is classified as a largely nutritional 'functional food'. It's rich in salutary Fiber, vitamins, and minerals; still, especially, the substantiation is mounting to support the conception that coconut may be salutary in the treatment of rotundity, dyslipidaemia, elevated LDL, insulin resistance, and hypertension – these are the threat factors for CVD and type II diabetes, and also for the announcement. In addition, phenolic composites and hormones(cytokinin) set up in coconut may help in precluding the aggregation of the amyloid- b peptide, potentially

inhibiting a crucial step in the pathogenesis of A Fernando. The high situations of impregnated fat have generally dissuaded those who are more health-conscious from using CO, cream, or milk. Similarly, low-fat diets have been considered to be the stylish approach to reduce the threat of announcement, in particular, the Mediterranean diet. CO is rich in medium-chain adipose acids (MCFA), which are metabolized from the long-chain adipose acids (LCFA) generally set up in mortal diets. In addition, CO offers anti-aging and antioxidant properties In the Asian population, several studies indicated that coconut oil painting consumption can be good for the heart and isn't involved in the development of atherosclerosis and coronary heart disease development of atherosclerosis and coronary heart disease<sup>13</sup>. Coconut oil painting is high in impregnated fat and may, thus, raise serum cholesterol attention, but salutary goods on other cardiovascular threat factors have also been suggested. Coconut oil painting consumption results in significantly advanced LDL- -cholesterol than nontropical vegetable canvases. This should inform choices about coconut oil painting consumption(14).

- **Anti-inflammatory, analgesic, and antipyretic conditioning of VCO (Vergin Coconut Oil)**

An examination directed by Intahphuak et al, assessed the comforting, pain relieving, and antipyretic goods of VCO in rodents exercising ethyl phenyl propionate- urged observance oedema and carrageenan and arachidonic acid-initiated paw oedema. VCO was set up to have moderate mitigating impacts. Through drop in the transudative weight, granuloma development, and serum antacid phosphatase exertion, VCO displayed an inhibitory impact on constant vexation. In acidic sharp incited writhing, the model for pain-relieving movement and for incentive-instigated hyperthermia for antipyretic

action, VCO indicated a moderate pain-relieving and antipyretic effect (7).

- **Antiviral effect**

A study has been carried out to ascertain the antiviral exertion of the virgin coconut oil painting. A minimum of 50 ml of coconut oil painting would contain 20 to 25 grams of lauric acid, which indicates that the oil painting is metabolized in the body to release monolaurin which is an antibiotic and an antiviral agent. Among the impregnated adipose acids, lauric acid has the maximum antiviral exertion. Rested on this exploration, the first clinical trial using monolaurin as monotherapy on some of the HIV cases was conducted lately. The findings suggest that the original trial vindicated the anecdotal reports that coconut oil painting does have an antiviral effect and can beneficially reduce the viral weight of HIV cases. The positive anti-viral action was seen not only with the monoglyceride of lauric acid but with coconut oil painting oil painting itself. This indicates that coconut oil is metabolized to monoglyceride forms of C- 8, C- 10, and C- 12 to which it must owe its anti-pathogenic activity(10).

- **ANTIMICROBIAL**

Coconut oil has been used as an antibacterial, antifungal, antiviral, and anti-dermatophytic agent in Ayurvedic medicine and many other societies worldwide for a long time. Recent studies have shown that coconut oil has antimicrobial properties that make it effective against many infections caused by pathogenic bacteria, viruses, fungi, and protozoa. By-products of coconut oil breakdown result in the production of medium-chain fatty acids (MCFA) and monoglycerides (MG), which confer antimicrobial properties by destroying pathogenic microorganisms. Coconut oil has been proven to be successful against lipid-coated infections such as Epstein-Bar virus, influenza virus, leukemia virus, hepatitis C virus, and cytomegalovirus (CMV). The effectiveness of

coconut oil as an antimicrobial agent is due to the active monolaurin, a monoglyceride produced during the metabolization of lauric acid, which is the predominant fatty acid in coconut oil. Studies have shown that coconut oil can be formulated into creams to treat bacterial and fungal infections. In our fast-paced society, antibiotics are often overused, leading to the elimination of healthy bacteria in the gut, which can promote the overgrowth of harmful microorganisms like *Candida* and cause fungal infections. Because coconut oil is a rich source of MCT and possesses antifungal properties, a study in Nigeria focused on its effectiveness as an antifungal agent. The study found that coconut oil was effective against *Candida* and could be an important alternative medicine, especially against *Candida* species.

- **Anti-ulcer and cytoprotective studies**

The experimental rats were divided into three groups consisting of 6 rats per group. Rats of each group were oral-treated with distilled water (10 mg/ kg) for the negative control group, omeprazole (30 mg/ kg) for the positive control group, and VCO ( 2 ml per rat) for the treatment group for seven days and sated for 24 h into the eighth day before the ulcer induction procedure.(12)

- **Effect of Coconut on Alzheimer's-**

Coconut oil painting may represent a cheap and natural treatment for madness. This is because coconut oil painting contains medium-chain triglycerides (MCTs), which are digested to ketones in the liver. Ketones are typically produced in the body during the conversion of fat to energy, which is demanded to help neuron degeneration.(15)

- **Effect on blood pressure elevation**

Hypertension or elevated blood pressure is the main threat factor for cardiovascular complications similar as coronary heart complaint, atherosclerosis, and stroke. Numerous studies to help the elevation of blood pressure have been carried out. Badlishah Sham Nurul-Iman et al



carried out a study on the Effect of VCO on the forestalment of blood pressure elevation and improvement of Endothelial Functions in rats fed with constantly hotted win oil painting. This study explored the goods of virgin coconut oil painting (VCO) in manly rats fed constantly with heated win oil painting on blood pressure, tube nitric oxide position, and vascular reactivity. In their study elevation of blood pressure was created by the repeated feeding of heated win oil painting. On overheating, the free revolutionaries that were generated convinced oxidative stress within the blood vessel, affecting the NO position in the endothelial cells. In manly rats, supplementation with constantly hotted win oil painting VCO was set up to help blood pressure elevation and to also drop nitric oxide deactivation. In addition, VCO didn't impact relaxation but dropped vasoconstriction of the endothelium (19).

- **Hepatoprotective**

Oxidative stress induced by the generated free revolutionaries plays a preminent part in the development of hepatic toxicity<sup>13</sup>. A study was conducted on hepatoprotective exertion of VCO on 2, 4- Dichlorophenoxyacetic acid (2, 4- D) induced liver damage in rats<sup>14</sup>. Rats treated with 2, 4- D showed significant liver damage with increased serum transaminases and alkaline phosphatase enzyme conditioning, hepatic lipid peroxidation, and liver-free adipose acids. Serum total protein, albumin, hepatic superoxide dismutase, and glutathione peroxidase enzyme exertion were significantly reduced. Inflammation and necrosis were observed in liver sections of treated rats. VCO oil painting oil-treated brutes showed an improvement in hepatic antioxidant enzymes, serum transaminase conditioning, and liver-free adipose acids situations which were vindicated by histopathological examination, thereby establishing the hepato-protective exertion of VCO<sup>(21)</sup>.

- **Wound Healing Effect**

Wound mending is a complex process where the skin or other body towel repairs itself after injury. The oil painting of *Cocos nucifera* has been reported to be an effective crack mending agent<sup>17</sup>. Nevin et al studied the effect of the topical operation of virgin coconut oil painting on skin factors and antioxidant status during dermal crack mending in youthful rats. In their study, creatures were treated for 10 days with VCO, 24 hours after the creation of the crack. VCO's mending exertion was estimated by covering time for complete epithelization in addition to the colorful parameters of the crack's granulation towel. Solubility pattern of collagen, glycohydrolase exertion, and granulation towel histopathology were also studied. creatures treated with VCO showed important faster crack-mending exertion, indicated by a dropped time in complete epithelization and advanced situations of colorful skin factors. The significant increase of Pepsin-answerable collagen and glycohydrolase conditioning observed indicated advanced collagen cross-linking and its development<sup>(21)</sup>.

- **Effect on Dermatitis**

Atopic dermatitis (announcement) is a habitual skin complaint characterized by features of imperfect epidermal hedge function and inflamed cutaneous sub-caste. In this condition trans epidermal water loss (TEWL) is increased and the capability of the stratum corneum to hold water is bloodied. This leads to dropped skin capacitance and hydration. A study by Evangelista et al delved into the topical effect of VCO on SCORAD indicator, transepidermal water loss, and skin capacitance in mild to moderate pediatriac atopic dermatitis using a randomized controlled trial design. A aggregate of 117 cases included were estimated at birth, and also at, 4, and 8 weeks independently. The results concluded the superiority of VCO over mineral oil painting among paediatric cases with mild to moderate.





- **skin protection**

Traditionally, coconut oil painting is used to moisturize and treat skin infections. The emollient effect of coconut oil painting has been successfully demonstrated in atopic dermatitis cases, thereby showing that coconut oil painting is a potent natural emollient to be used in the treatment of xerosis. The effectiveness and safe use of VCO for its operation as a remedial moisturizer has been reported before for mild to moderate xerosis. Still, there's no report available on the anti-inflammatory and skin hedge function of VCO in vitro (22).

- **Composition of coconut oil**

CNO (Crude Coconut Oil) has become one of the most asked canvases in the world due to its high degree of achromatism and good stability. There are different types of CNO deduced from different corridors of the coconut. Copra oil painting (CO) is uprooted from the dried kernel by mechanical milling and Abecedarian coconut oil painting (VCO) is uprooted from the fresh kernel without high heat or chemical treatment. The oil painting uprooted with isopropyl alcohol from coconut Testa is known as coconut testa oil painting (CTO). CNO is predominately composed of SFAs which account for 90 of its composition. In addition to triacylglycerols (Label) esterified with element adipose acids, CNO contains other minor factors such as phospholipids, sterols, tocopherols, and unpredictable substances. The presence of these substances plays an important part in modulating the chemical and physical characteristics of CNO. For this case, the melting pattern of CNO, which passes suddenly from a solid to a liquid within a short-range, is substantially due to the nature of the composition. It has been known for its high lauric acid content, which is between 46.36% and 48.42%. Processed from coconut milk, which is high in carbohydrates and proteins, the fermentation process of VCO results in lactic acid bacteria (12).

### A. Phenolic composites

Phenolic composites are important phytochemicals that parade several bioactive parcels including antioxidant exertion. Several factory canvases are known to be excellent sources of phenolics that can scavenge free revolutionaries produced in our bodies. Unlike other factory canvases, studies concentrated on quantitative and qualitative analysis of phenolic composites of coconut oil painting are less common. According to former studies, the phenolic acid present in CNO is attributed to health benefits similar to anti-inflammatory, anti-hepatosteatorsis, antioxidant, and chemoprotective conditioning.

### B. Phospholipids

Phospholipids are generally set up in utmost natural canvases and fats yet the quantum and the composition differ depending on the source of origin. As an important functional trait, they are known to have a stabilizing effect on adipose foods. also, crude CNO has a fairly low quantum of phospholipids (0.2) in comparison to other vegetable canvases. The major factors of the phospholipids present in CNO are phosphatidylcholine, phosphatidylethanolamine, and phosphatidylinositol

### C. Triacylglycerol

The major triacylglycerol (Label) species of CNO are CCLa, CLaLa, LaLaLa, and LaLaM (where C for capric, La for lauric, M for myristic) and the rest of the remaining notes represent Label molecular types, which do in lower than 10 position. Owing to their esterification with MCFA, the dominant Label notes of CNO are popularly known as medium-chain markers, which is attributed to the nutritive significance and functional parcels of CNO<sup>38</sup>. The major triacylglycerols of CNO are about 19 of tri laurin followed by 16 each of diaurylcapryl glycerol (C34) and diaurylmyristylglycerol and 10 each of lauryldicaprylglycerol and lauryldimyristylglycerol (8).



**Fatty acid composition of coconut oil**

Fatty acid	Name	% composition
C6:0	Caproic acid	0.53
C8:0	Caprylic acid	7.19
C10:0	Capric acid	5.98
C12:0	Lauric acid	49.40
C14:0	Myristic acid	19.01
C16:0	Palmitic acid	8.41
C18:0	Steric acid	3.28

**CONCLUSION**

Nutritive supplements and salutary variations may directly influence the pathological benefactions of increased oxidative stress, blights in mitochondrial dysfunction and cellular energy product, habitual seditious mechanisms, and direct pathways to amyloid accumulation and neurofibrillary degeneration which are the main physiological processes interrelated with the etiopathogenesis of the announcement. It has been stated that the factors set up in coconut oil painting including lauric acid (LA), ketone bodies (KBs), and MCTs have an implicit medium of action applicable to the announcement, with the recent recognition and substantiation. The remedial part of coconut oil painting can be bandied under different pathways. Different from most other salutary fats that are high in long-chain adipose acids, coconut oil painting contains MCFA. MCFA are unique in that they're fluently absorbed and metabolized by the liver, defying esterification and list, and inadequately contributing to the fat deposits. The substantiation is mounting to support, that this process is clearly salutary not only in the treatment of announcement, but also in rotundity, dyslipidaemia, elevated LDL, insulin resistance, and hypertension which are threat factors for cardiovascular conditions and type 2 diabetes. On the other hand, MCFAs engage in the serum cholesterol-lowering process through a partial increase in the excretion of corrosiveness acids and substantially this occurs via the decline of immersion in the small bowel. also, ketone bodies like AcAc, 3HB, and acetone inside the body, are

made out of non-carbohydrate energy sources like MCT or MCFA. They're a significant indispensable energy source in the brain and may be salutary to people developing or formerly with memory impairment. Although further than 98 of all small-patch medicines and roughly 100 of all large-patch medicines or genes cannot cross the BBB, the D-  $\beta$ - 3hydroxy- butyrate ketone body crosses the BBB and enters the mitochondria in brain cells according to the literature. still, important epidemiological and intervention study substantiation is demanded to warrant further examinations on ketone bodies to establish efficacy. In addition, phenolic composites set up in coconut oil painting may prop in precluding the aggregation of A $\beta$  peptide, with its anti-inflammatory, anti-oxidative, and anti-amyloidogenic parcels potentially inhibiting a crucial step in the pathogenesis of announcement. The experimental results may suggest that antioxidant capacity depends on the ways to prize oil painting out from the coconut fruits and virgin coconut oil painting uprooted from the turmoil system is ideal as a remedial treatment. Coconut oil painting was blamed mentioning that it has injurious goods on health as it would clog highways due to the impregnated adipose acids till veritably lately, but with recent substantiation claiming the positive health benefits owing to the presence of MCTs. Coconut oil painting should be emphasized as a treatment or a preventative measure for announcement which has largely nutritional functional parcels. still, due to the inconsistencies of any peer-reviewed large cohort clinical data in the long run, it's suggested that further exploration needs to be accepted before astronomically championing the use of coconut oil painting as a salutary intervention.

**PROTESTATION OF INTEREST:**

The authors declare that there's no conflict of interest regarding the publication of this handwriting.

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