

Healthy Ways Newsletter

The cutting edge source of information on coconut, fats and oils, diet, and nutrition.

E-Edition, E-Edition, Volume 15-2

Published March, April, 2018

Piccadilly Books, Ltd. www.piccadillybooks.com

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Bruce Fife, N.D. Publisher www.coconutresearchcenter.org

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Four Weeks Consuming Coconut Oil Lowers Risk of Heart Disease, Stroke: Study Shows

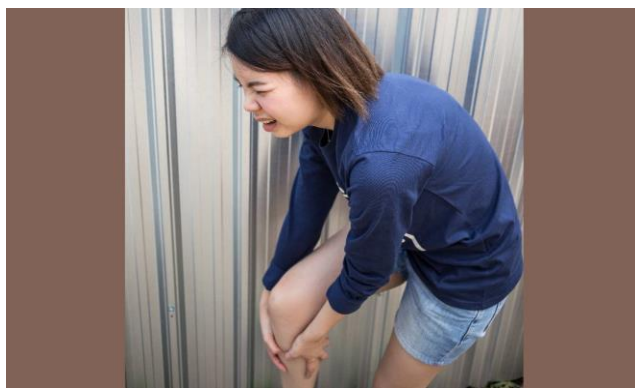
A new study has the AHA up in a tizzy, just months earlier they issued a “presidential” report outlining their stand against saturated fats. This new study casts doubt on the validity of their dietary recommendations. Evidence is mounting that following the

AHA’s dietary advice is the quickest way for you to die of cardiovascular disease, not prevent it. [read more](#)



Science-Based Evidence of Oil Pulling

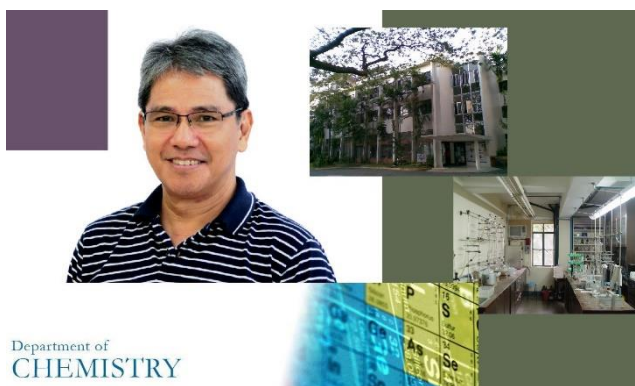
Skeptics claim there is little or no evidence to prove that oil pulling is safe or effective. However, there is a lot of evidence. Within the past 6 years alone over 20 studies have been published proving the effectiveness of oil pulling. [read more](#)



The Hidden Dangers of Knee Replacement Surgery: What You Should Know and What Your Doctor May Not Tell You Before You Have Surgery

Is knee replacement surgery the best option for chronic knee pain? Are there alternative treatments that can solve the problem more efficiently with less risk, expense, and trauma? Learn the facts before

you get surgery. [read more](#)



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CHEMISTRY

Coconut Oil: Bringing History, Common Sense and Science Together

The third part in a five-part series of articles by Dr. Fabian Dayrit demonstrating why the American Heart Association's dietary recommendations are wrong. [read more](#)

Coconut Oil Lowers Risk of Heart Disease, Stroke: Study Shows

A new study has the AHA up in a tizzy, just months earlier they issued a “presidential” report outlining their stand against saturated fats. This new study casts doubt on the validity of their dietary recommendations. Evidence is mounting that following the AHA’s dietary advice is the quickest way for you to die of cardiovascular disease, not prevent it.

There is a love-hate relationship between coconut oil and the medical community. Many doctors and nutritionists extol it for its many healthy benefits. Bestselling author Dr Joseph Mercola claims that coconut oil is the healthiest oil you can eat. Neurologist Dr. David Perlmutter, the author of *Grain Brain*, recommends coconut oil as a means to improve brain health. Dr Mark Hyman says it as a health food and weight loss aid in his bestselling book *Eat Fat, Get Thin*.

However, others claim that its high saturated fat content makes it unhealthy. Saturated fats, they say, raise blood cholesterol, which in turn, increases the risk of heart disease. The American Heart Association (AHA) has been leading the attack against coconut oil. In a widely publicized report published in 2017 the AHA took a stand against all saturated fats, including coconut oil. They condemned saturated fats as a major risk for heart disease and recommend polyunsaturated vegetable oils as a healthier choice.

As soon as the report was released the media went wild churning out reports condemning coconut oil as one of bad fats, further perpetuating the myth that coconut oil and other saturated fats are unhealthy.

According to the AHA, dietary fat intake should be limited to 30 percent of total calories consumed and saturated fats should be limited to no more than 7 percent. Most of the fat in the diet should come from polyunsaturated vegetable oils because they have been shown to lower total cholesterol. To them, it's all about cholesterol.

Let's assume that cholesterol is as important as the AHA claims it is in determining heart disease risk, does that make coconut oil dangerous?

While some saturated fats do raise total cholesterol, they also tend raise HDL cholesterol—the so-called good cholesterol that is believed to reduce the risk of heart disease. In fact, the rise in total cholesterol is due, in part, to the increase in HDL—which is a good thing.

So, does coconut oil improve or worsen cholesterol values?

To cut through all the rhetoric of the opposing viewpoints producers at the British Broadcasting Corporation's television series "Trust Me I'm a Doctor" decided to sponsor a study to get to the bottom of the controversy. The Trust Me team contacted Kay-Tee Khaw, MD, PhD and Nita Forouhi, MD, PhD, both eminent researchers at the University of Cambridge to conduct the study.

The study was designed to observe what effect eating different types of fat would have on cholesterol levels. Three different fats were compared in the study: coconut oil, which is 92 percent saturated fat, unsalted butter, which is 66 percent saturated, and olive oil which is 14 percent saturated and 77 percent monounsaturated.

A total of 94 volunteers, age 50 to 75 who had no history of diabetes or heart disease, were recruited to participate in the study. The volunteers were randomly assigned to one of three groups, with each group assigned to add one of the three fats into their diet. Every day for four weeks, they were asked to consume 50 grams of their assigned oil—that's equivalent to about 3 tablespoons.

Before starting on their new high-fat regime blood samples were taken to get baseline measurements, focusing mainly on their LDL and HDL cholesterol levels. LDL cholesterol is often referred to as the "bad" cholesterol as it makes up most of the cholesterol in our blood.

As expected, the butter eaters saw an average rise in their LDL levels of about 10 percent, which was almost matched by a 5 percent rise in their HDL levels. Taken together the overall effect has a negligible effect on heart disease risk.

Those consuming olive oil had a small, non-significant reduction in LDL cholesterol but saw a 5 percent increase in HDL, supporting its health healthy reputation.

The big surprise was coconut oil. Not only was there no rise in LDL levels, which was what the researchers were expecting (and what the AHA claims it would do), but there was a particularly large rise in HDL, by an impressive 15 percent. The people consuming the coconut oil had significantly reduced their risk of suffering a heart attack or stroke.

The researchers were surprised by the results. Dr. Khaw confessed that she didn't understand why coconut oil provided better numbers than even olive oil. "I have no real idea," she said. "Perhaps it is because the main saturated fat in coconut oil is lauric acid and lauric acid may have different biological impacts on blood lipids to other fatty acids. The evidence for that comes mainly from animals, so it was fascinating to see this effect in free-living humans." [1]

This study provided further evidence that people consuming coconut oil are at reduced risk of developing heart disease, despite claims from the AHA who base their prejudice of coconut solely on its saturated fat content and not on actual studies.

This is not the only study to show that coconut oil reduces the risk of heart disease. Animal studies have clearly shown that coconut oil has the potential to reduce atherosclerosis and prevent, and perhaps even reverse, cardiovascular disease. [2-3]

Although the AHA recommends polyunsaturated vegetable oils as a healthier choice over coconut oil, human clinical trials show that in comparison to polyunsaturated oil, coconut oil does not promote cardiovascular disease even after long-term use. [4]

Other human studies show that coconut oil reduces all of the common risk factors associated with cardiovascular disease such as waist circumference, body mass index, blood pressure, cholesterol ratio, blood triglycerides, blood glucose, and inflammation, among others. [5-10]

Taken together, these studies strongly support the cardioprotective nature of coconut oil. No drug, dietary supplement, herb, or low-fat diet has been able to match the combined cardioprotective effects obtained from the regular use of coconut oil. If coconut oil was a pharmaceutical product invented in a chemist's laboratory it would be promoted as the world's most effective cardioprotective agent of all time. But since it is a natural product that cannot be patented and exploited and since it competes with a multitude of highly profitable drugs, it is condemned as dangerous.

These and many additional studies not referenced here were suspiciously ignored by the AHA's report on saturated fats. Was this just a negligent oversight, or was it a preconceived plan to bury studies that conflict with the AHA's viewpoint? Since the committee members who determine the AHA recommendations are all established academics, it appears it wasn't due to shoddy research, but more likely a conflict of interest—a common problem when non-profit organizations take money from big businesses that have an interest at stake.

The AHA's overemphasis on cholesterol as the major contributing factor to heart disease and lack of acknowledging the importance to other factors, such as excessive sugar consumption, could be leading us in the wrong direction. If the AHA's dietary advice is really accurate and effective, the directors and officers of the AHA would surely be following their own guidelines

religiously. You would definitely expect the president of the AHA, Dr John Warner, a cardiologist, to have incorporated his organization's guidelines into his own life and, consequently, have the lowest risk of heart disease of anybody. That is, if the guidelines were anywhere near accurate.

Ironically, just months after the AHA pronounced their stand against saturated fats, Dr. Warner suffered a massive heart attack.[11] He was only 52 years old. Warner survived the incident, but he could have easily died. In the US life expectancy for men is 79 years, if he had died it would have been 27 years prematurely. The president of the AHA could not avoid a heart attack by following his own dietary recommendations, so what good are they to us? The AHA's dietary advice is obviously seriously flawed. It appears that if you want to die early from heart disease you should be following the AHA's dietary recommendations. If you want to prevent a heart attack, you should be using coconut oil.

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Science-Based Evidence for Oil Pulling

The American Dental Association (ADA), which represents itself as an authoritative voice of modern dental science and practice, has established the standard for dental care recommended by dentists. While some of the ADA's recommendations are sensible, others are not. In fact, following all of the advice of the ADA might kill you!

The ADA has long advocated the use of mercury amalgam fillings, claiming they are harmless and even essential for good dental health. Mercury is the most toxic nonradioactive substance known to science. It is a potent neurotoxin that destroys the brain and nervous system. Despite conclusive evidence against the use of mercury amalgam fillings, the ADA refuses to change its longstanding recommendation for the use of this toxic material in our mouths.[1]

Fluoride, another highly toxic substance, is recommended as an ingredient in all dental products and even as an additive to drinking water. Again the science shows, contrary to ADA claims, that fluoride does not prevent cavities and can lead to many serious health problems.[2]

You may have noticed the warnings on fluoride toothpaste that say if as much as a pea size amount of toothpaste is swallowed to contact the poison control center immediately. That doesn't sound exactly harmless.

Dental procedures such as root canals cause far more harm than good and set up an environment in the mouth that incubates harmful bacteria that can spread to other parts of the mouth and throughout the body causing a wide variety of health issues. Again, the ADA claims root canals are harmless.[3] Forty million root canal procedures are performed in the US each year on patients who are told they are harmless or at least not told about their dangers.

Antiseptic mouthwashes loaded with chemicals and artificial ingredients are also recommended as part of our daily oral hygiene routine. The ingredients include such things as alcohol, cetylpyridinium chloride, domiphen bromide, methyl salicylate, and a range of chemical preservatives, sweeteners, flavorings, and artificial colors, none of which can be considered healthy or even harmless. The warnings on the labels say do not swallow, keep out of the hands of children, and that they are not to be used by anyone under the age of 12. If a 12-year-old isn't supposed to use it then it might not be so good for older people either. Right?

Many other recommendations by the ADA are equally as harmful and following their advice can make your mouth more susceptible to infection and seriously affect your overall health.

In recent years the practice of oil pulling has become a popular holistic method of oral cleansing. Oil pulling is simply putting a spoonful of oil (usually a vegetable oil such as coconut oil) into the mouth and swishing it around like a mouthwash and then spitting it out. The theory behind it is that the oil attracts bacteria, viruses, and other debris from around the teeth and gums. When the oil is spit out, it pulls out all this debris with it, leaving the mouth cleaner and healthier. The results are whiter teeth, fresher breath, healthier gums, and a reduced risk of infection. In fact, many people have claimed that oil pulling removed infections allowing them to no longer need scheduled dental surgery and other invasive, and expensive, dental procedures. Others have found that their oral health has improved so much that they no longer see the need

for dental cleanings every 6 months. Some dentists aren't too happy with the lost revenue as a result.

The ADA has come out publically and stated that they do not recommend oil pulling. Putting a vegetable oil in your mouth could be dangerous they imply, yet they staunchly defend the use of toxic substance such as mercury, fluoride, and chemical mouthwashes. It makes you wonder whose welfare they are looking out for, yours or the profits of their members and themselves?

The ADA recommends that you maintain their recommended brushing, flossing, and routine 6-month professional cleaning model for a healthy smile. Interestingly, we have been following this model for decades and it hasn't slowed the rates of dental disease. More than 90 percent of the population has some level of dental decay or gum disease. Simply having straight, white teeth does not equate to having a healthy mouth free from decay and infection. According to the Centers for Disease Control and Prevention (CDC), nine out of every 10 people have tooth decay. One in 20 middle-aged adults and one in three older adults over the age of 65 have lost all of their teeth to oral infections.



Despite following the ADA's dental hygiene recommendations, by the age of 65 you are likely to have lost most or all of your teeth from infection. Those are some pretty grim statistics. Teeth are meant to last a lifetime, not just a few decades. Obviously, the ADA model isn't working. It does, however, provide an opportunity for patients to become lifelong customers with a continual need for regular dental care.

If oil pulling can improve oral health and even prevent invasive dental work, why doesn't the ADA recommend it? They claim that there isn't enough research to prove that it is safe or effective. In fact, that is the only excuse all the skeptics give. They all demand proof in the form of published studies and imply that as long there is no proof that it works, we should not be doing it. Simply because they claim there isn't any proof doesn't mean it is so. They are hoping their word alone is enough to discourage any further inquiries on the topic to keep the public in the dark.

The fact of the matter is, there is lots of proof. There are over 50 medical and dental journal articles and studies published in just the last few years describing the effects oil pulling.

If oil pulling were a drug, there is enough published research for the FDA to approve it for sale in the US. Drugs can be approved with just two positive studies to demonstrate their safety and usefulness. Oil pulling has far more than that. [see link](#)

Oil pulling advocates claim that it can effectively reduce oral microbial populations and thus improve oral health. Consequently, most of the studies on oil pulling have examined this issue. It

is believed that microorganisms which are encased in a fatty membrane are attracted to and absorbed into the oil during the swishing action. When the oil is expelled from the mouth, the absorbed microorganisms are removed with it.

Much of the research on oil pulling has come out of the medical and dental schools of India where oil pulling is a well-known practice with roots in traditional Ayurvedic medicine. Researchers at VHNSN College in Virudhunagar, India studied the effect of oil pulling on the oral populations of *Streptococcus mutans* and *Lactobacillus acidophilus*—the two most common bacteria associated with dental decay. Test subjects with active dental cavities were selected and oral bacterial populations measured before and after oil pulling. After 40 days of oil pulling once daily, the total bacteria count was reduced up to 33 percent in the participants.[4]

This study demonstrated that oil pulling does reduce the bacteria most responsible for dental decay. A number of other studies lasting from 1 to 6 weeks have confirmed the bacteria reducing effect of oil pulling.[5-6]

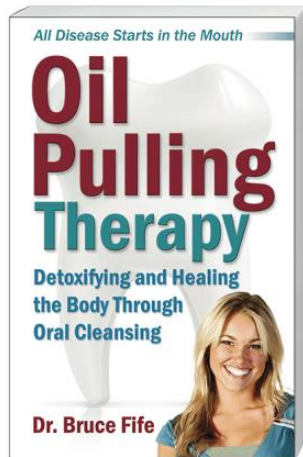
One of the beneficial effects attributed to oil pulling is the reduction or elimination of halitosis. Halitosis, or chronic bad breath, is something that breath mints, mouthwash, and brushing can't solve. Unlike food odors or morning breath, halitosis remains for an extended period of time and is often a sign of a more serious problem. Most cases of halitosis are caused by the overgrowth of odor-producing bacteria associated with tooth decay and gum disease and are nearly impossible to clear out by routine brushing, flossing, or antiseptic mouthwashes.

A study by researchers at the Meenakshi Ammal Dental College, Chennai, India compared the anti-halitosis effect of oil pulling with medicated mouthwash. The active ingredient in the mouthwash used was chlorhexidine. This is a prescription grade mouthwash designed specifically to kill bacteria associated with gingivitis and periodontitis—major contributors to halitosis. Chlorhexidine is considered the most potent antiplaque and antigingivitis agent presently in use. Rinsing with a chlorhexidine-based mouthwash provides a significant reduction in odor-producing bacteria and has been shown to reduce halitosis by up to 90 percent. It is considered the gold standard on which other mouth rinses are compared.

This study involved 20 college age subjects free of periodontal disease. Half of the subjects swished with vegetable oil (the oil pulling group) the other half used chlorhexidine-based mouthwash (the control group). Breath analysis was done first thing in the morning on an empty stomach and before performing any type of oral hygiene. Normal tooth brushing and dental hygiene was continued throughout the study period. Participants were instructed not to consume spicy or pungent foods or alcohol the night before that might affect the results. The subjects were monitored for 14 days.

In this study the researchers demonstrated that oil pulling was equally as effective as chlorhexidine-based mouthwash against halitosis and the bacteria that are associated with it.[7] While the overall effects of the two treatments were comparable, oil pulling has the advantage over chlorhexidine in that it does not cause tooth staining, tongue irritation, swollen glands, dry mouth, or mouth sores—all typical side effects of the medicated mouthwash. Chlorhexidine also produces a lingering aftertaste and in some people can cause serious allergic

reactions and breathing problems. In addition, vegetable oil is far less expensive and does not require a doctor's prescription. All things considered, oil pulling has the clear advantage.



For further reading:

Oil Pulling Therapy

Detoxifying and Healing the Body Through Oral Cleansing

By Dr. Bruce Fife

[view here](#)

At least six additional studies have been published comparing oil pulling with chlorhexidine-based mouthwash.[8-13] Every one of them showed that there was no statistically significant difference in the efficiency of oil pulling compared to chlorhexidine mouthwash in reducing halitosis and odor-causing bacteria and yeasts. Each of the oils used for pulling in the studies, which included coconut oil, sesame oil, and rice bran oil, were effective and showed measurable decline in *Streptococcus mutans*, *Lactobacillus acidophilus*, *Porphyromonas gingivalis*, *Bacteroides forsythus*, *Treponema denticola*, and *Candida albicans*, all of which can contribute to halitosis, dental cavities, and gum disease.

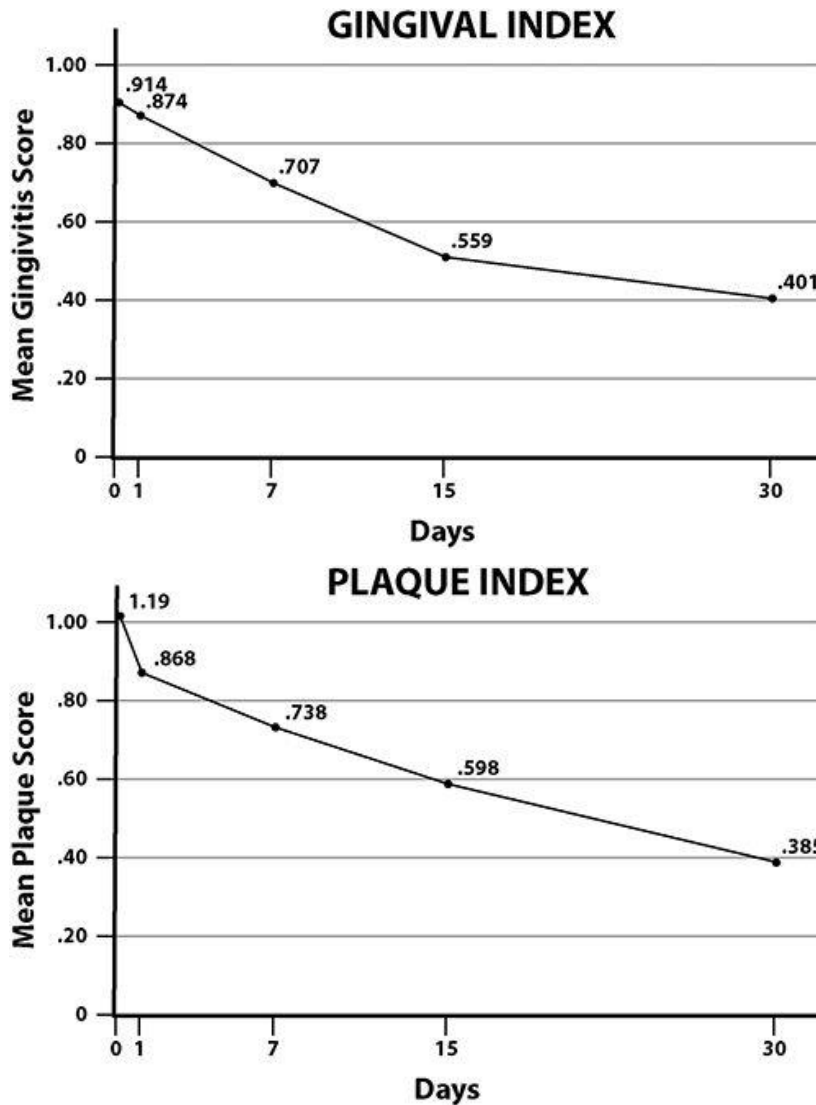
Reducing oral microbial populations can have a pronounced effect in reducing the severity of gingivitis and periodontitis. In fact, this is the reason for the use of chlorhexidine-based mouthwashes. One of the major benefits attributed to oil pulling is the reduction of gum disease, and in some cases even to the extent of eliminating the need for dental intervention.

Researchers at Kannur Dental College, Kannur, India investigated the effect of oil pulling on plaque formation and to evaluate the effect on induced gingivitis. Sixty teenage subjects with plaque related gingivitis participated in the study. The subjects were instructed to oil pull with coconut oil each morning along with their normal daily dental hygiene routine. Plaque and gingival indices were measured at baseline and on days 1, 7, 15, and 30.

The gingival index is used in dental care to evaluate the extent of gum disease. This index can help dentists create a care plan for patients and can be used to track the progress of dental treatment over time. The primary cause of gingivitis (gum or gingival inflammation) is plaque. Plaque is the most common factor for tooth decay and gum disease. Bacteria attach to the teeth forming the plaque. These bacteria metabolize sugars and starches and produce acids that damage the teeth and promote the growth of bacteria that can harm the gums.

The results of the study showed that plaque accumulation over the tooth surface was drastically reduced after the first week and that gingival infection significantly subsided within 15

days. Both indices continued to improve throughout the 30 day test period. See the graphs below.[14]



Adapted from Peedikayil, FC, et al. *Effects of Coconut Oil on Oral Health*.

One of the first studies on oil pulling to appear in the scientific literature was published in the *Journal of Oral Health and Community Dentistry* in 2007. The objective of the researchers was to assess the effect of oil pulling on plaque and gingivitis and to monitor its safety on the teeth and gums. Ten university students were recruited to participate in the study. This was a blind study so that the subjects were not told the purpose of the investigation in order to avoid any possible bias. All the subjects chosen had mild to moderate gingivitis and plaque accumulation, were free from systemic disease, and were not using any medications. They were instructed to continue with their normal oral hygiene routine, along with oil pulling. Oil pulling was performed once each morning for a period of 45 days. Plaque levels and the severity of gingivitis were assessed

periodically during the study. The subjects were instructed to take 2 to 3 teaspoons of refined sunflower oil and swish the oil in their mouths for 8 to 10 minutes before spitting it out.

At the end of the 45 days no adverse reactions to the teeth or soft tissues in the mouth were found, indicating that the procedure caused no physical harm. Most people would have assumed this, but his study gave confirmation. Plaque formation was significantly reduced, with most of the reduction coming during the latter half of the study, indicating that the longer the treatment is performed the better the results. Gingivitis was also significantly reduced in all subjects, decreasing by more than 50 percent. The researchers rated the changes as “highly” significant and stated that this study “proved” that oil pulling has dental benefits.[15]

Studies have shown that commercial mouthwashes reduce plaque by 20 to 26 percent and gingivitis by about 13 percent.[16-17] Tooth brushing reduces plaque by 11-27 percent and gingivitis by 8 to 23 percent.[18-19]

According to the above study, oil pulling beats them both. The results show that oil pulling reduced plaque by 18 to 30 percent and gingivitis by an amazing 52 to 60 percent. The reduction in plaque using oil pulling is only slightly better than antiseptic mouthwash and brushing, but the reduction in gingivitis is two to seven times greater. Oil pulling significantly out-performs brushing and mouthwash as a means of oral cleansing and reducing established gum disease.

The plaque- and gingivitis-reducing effect of oil pulling has been reported by a number of other studies confirming these results.[20-22]

There are enough studies to establish the fact that oil pulling can and does reduce oral microbial populations and reduces established gum disease. Consequently, it stands to reason that oil pulling can do as reported—whiten teeth, eliminate bad breath, stop bleeding gums, pull out infection, and generally improve the overall health of the mouth. A case study described in the *IOSR Journal of Dental and Medical Sciences* provides scientific support.[23]

A 34-year-old male complained of halitosis, bleeding gums, and a loose back tooth. The examination revealed poor dental hygiene with a high plaque index, deep periodontal pockets, and tartar accumulating below the gumline. A diagnosis was given of chronic generalized gingivitis with localized periodontitis affecting 9 teeth.

The patient was not willing to undergo periodontal flap surgery at that time. Instead, he was given a deep cleaning and instructed to initiate a strict oral hygiene protocol which included daily brushing and oil pulling for 10-15 minutes. After following the new oral hygiene procedures for 6 months a thorough examination showed a significant improvement in his oral hygiene score, gingival score, CAL (Clinical Attachment Level) scores, and halitosis grade. Before and after X-rays of his teeth and jaw showed clinically significant bone regeneration with the teeth firmly set. Significant soft and hard tissue regeneration was observed and the initial recommended surgery was no longer considered necessary. The dramatic improvement of the patient was credited mostly to the oil pulling as brushing alone would not have produced such remarkable results.

Another controversy is the claim by many oil pulling adherents that it can overcome various health problem not obviously connected to the mouth, such as relieving the pain of arthritis or improve blood sugar control in diabetics. However, this is actually the most well documented

aspect associated with oil pulling. Oral bacteria can seep into the bloodstream and affect any part of the body. This is the reason why dentists routinely prescribe antibiotics to patients who have any heart issues; after dental work the influx of bacteria into the bloodstream could cause heart failure. Antibiotics are also prescribed for those with artificial joints as the bacteria released from the mouth can infect the joints causing chronic pain. Oral bacteria has been known to invade the brain, joints, heart, blood vessels, reproductive organs, and elsewhere causing localized infection and chronic inflammation leading to a variety of health issues.[24-29] Simply improving dental hygiene has proven to ease or eliminate the complications associated with oral microbes invading other parts of the body.

There are literally hundreds of studies linking microbes that originate in the mouth to both acute and chronic diseases elsewhere in the body. In 2000, the US Department of Health and Human Services issued a detailed report from the Surgeon General on oral health. This report, which is continually updated, outlines and documents the connection between oral health and systemic disease.[30] It is no wonder then, that so many people who have tried oil pulling have reported relief from various health problems throughout the body.

Reducing the microbial populations in the mouth through oil pulling does more than just reduce the risk and incidence of secondary infections originating from oral microorganisms; it also has a detoxification or cleansing action on the entire body. With the reduction of the constant flow of oral bacteria into the bloodstream, a heavy burden is lifted from the immune system, allowing it to function more efficiently in protecting against conditions that are not directly related to oral bacteria. Dr. Padiga C. Reddy, MD has seen first-hand the effects of oil pulling in his medical practice. He has reported success with oil pulling is fighting systemic viral and bacterial infections, hepatitis, intestinal ulcers, sinusitis, respiratory problems, anemia, and in balancing hormone levels.[31]

Although studies have shown that oil pulling is equally as effective or even better than tooth brushing and antiseptic mouthwash at controlling dental plaque and gingivitis, oil pulling is not meant to be a replacement for brushing. It should be combined with your normal daily oral hygiene routine. It can, however, replace the use of mouthwash, as it does a superior job without the drawbacks.

What about flossing? With the exception of large stringy or fibrous food particles that get tightly wedged between the teeth and need to be forced out with floss, oil pulling is otherwise superior to flossing. Anyone who has oil pulled for any length of time can attest to the fact that even after a thorough flossing, oil pulling will dislodge additional food particles. It is common after flossing at night, that oil pulling the next morning will pull out hidden food particles that would otherwise remain in between the teeth contributing to bacteria overgrowth and bad breath.

Diet is also very important to dental health. Sugar and sweets feed the bacteria and yeasts that wreak havoc in our mouths. A low-sugar diet is the best thing you can do for the health of your teeth and gums. Yet dentists often give out candy to patients. Even sugar-free candy isn't harmless. It sends a message to kids and parents that candy is acceptable and has little consequence on dental health; it is not diet that is important, it is your regular 6-month dental cleansing and the ADA approved daily maintenance protocol that protects you. If you happen to

develop cavities or gum disease, the excuse is that you either are not following the ADA advice, not getting enough fluoride, or you have a genetic defect that makes your teeth more susceptible to decay. You cannot rely on the ADA's advice. You need to take charge of your own dental health. Seek the advice of holistic or biologic dentists who are generally better educated in regards to nontoxic dental care and start oil pulling. Oil pulling is an inexpensive, nontoxic, highly effective, *scientifically proven*, method of dental care. It is completely harmless, yet has the potential to do far more for you than the advice you get from the ADA.

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Hidden Dangers of Knee Replacement Surgery:

What You Should Know and What Your Doctor May Not Tell You Before You Have Surgery

I hear it all the time: “Knee replacement surgery is risk-free,” “The surgery is simple, nothing ever goes wrong,” and “You will feel much better afterwards.” While many people have knee replacement surgery without experiencing any serious problems and are pleased with the results, for many others it is the beginning of a nightmare. Older adults are at greatest risk, but they are the ones who are most likely to have the procedure.

Partial knee replacement (PKR) surgery replaces the damaged portions of the knee with plastic and metal parts, with total knee replacement (TKR) the knee is replaced with an artificial joint. Over time, the implant will loosen, causing instability; in addition, plastic and metal fragments in the knee caused by wear and tear of the implant can cause chronic inflammation and lead to another knee replacement procedure. Implants are expected to last for about 10 to 20 years depending on how physically active the recipient is. Since the average age of a recipient is about 70 years, most patients only need to have the procedure done once (or twice if you include both knees). Younger patients may need to have the procedure multiple times, with the risk of complications increasing with each surgery.

Knee replacement (TKR and PKR) surgery has become a mainstream procedure for the treatment of chronic knee pain. The number of people receiving knee replacement is rapidly growing, currently in the US nearly 1 million TKR procedures are done annually, and that number is expected to grow to over 3 million within the next decade.

Common complications to knee surgery include poor wound healing, swelling (which often lasts 3-6 months and can persist for as long as a year after surgery), reduced range of motion in the knee, bleeding, infection, blood clots, bone fracture during surgery, damage to nerves or blood vessels, and pulmonary embolism (blood clot in the lungs) among others. About 15 percent of the patients still have moderate to severe chronic pain that cannot be corrected by additional surgery. For them the surgery, which costs \$50,000 per knee, was ineffective.

Doctors tell us the procedure is completely safe with *serious* complications occurring in less than 2 percent of cases. Two percent seems pretty small, unless you are one of those 2 percent. When you consider that 2 percent equates to nearly 20,000 cases a year, that number doesn't seem so small any more.

What constitutes a serious complication? Death is the ultimate complication. Approximately 2,500 people a year who go in for a routine knee replacement do not survive the procedure. The death rate following total knee replacement is 1 in every 400 cases. Death is often caused by a blood clot or an infection. Permanent and long-term nerve damage, structural/bone damage, ligament damage, blood clots, and chronic pain are among the more serious complications. In about 1 in 4,000 cases further surgery is needed to correct problems caused by the initial surgery.



Some complications are not generally recognized, especially if they become manifest sometime after surgery. If you have an active infection in another part of your body at the time of the surgery—in your mouth, kidneys, or prostate, for example—it could lead to an infection in your knee months or even years later. This means that if you have gingivitis or periodontal disease, as many people do without being aware of it, you are at high risk of getting a knee infection sometime after surgery. Infections in the knee can be very difficult to treat because bacteria and viruses can hide within the implant, shielded from your immune system. The artificial joint has no blood supply and has no way of fighting off the infection.

The infection can spread to other parts of the body, including your arteries, promoting atherosclerosis and increasing your risk of heart attack and stroke. If an elderly person dies from a heart attack a couple of years after surgery his death certificate will state the cause was from a heart attack, a consequence of age, and say nothing about the link to knee surgery.

Complications may also arise from the anesthesia used during surgery. Adverse effects may include dental trauma, swelling of the windpipe, wheezing, vocal cord injury, stomach problems, and injury to blood vessels and nerves. Despite these potential problems, the most frightening complication from knee replacement surgery, next to death, is the damage the anesthesia does to the brain, especially in patients older than 60 years of age. The anesthesia used during surgery ignites massive oxidative stress and inflammation that can severely damage the brain leaving the patient demented or quickly headed in that direction. The loss of cognitive function and memory is often permanent and progressive.

“This is a serious risk for older patients, and one that is not fully understood nor are patients informed,” says Rita. Speaking of her mother, who was in her 80s, Rita says that she healed from the surgery, but experienced increasing and persistent cognitive declines afterwards. “After making progress recovering her strength, she started having hallucinations, became disoriented at times, lost her will to continue needed physical therapy, rarely spoke, became wheelchair dependent, could no longer cook, drive, or care for herself (all functions that were fine pre-surgery). She had to be moved to a full care facility, and continued to decline cognitively. She died after about 15 months. CT scans showed no significant brain damage they could pin point; nothing like a stroke. Because of her age, medical personnel seemed to accept her sudden decline and showed no concern in truly understanding what or why this was happening.”

“My elderly mom had a hip replacement and nobody warned us that the anesthesia might have some scary effects,” says Russ. “Right after the surgery she seemed fine but then for days after she made no sense, hallucinated, was confused. I started looking online and found a lot about this problem. Some people don't experience it but others do, and for some of them, they never get all the way back to normal. Even now my mom, while 99 percent back to normal two years later, still sometimes sees the patterns in the wallpaper start dancing around on the wall and then suddenly it stops. She never had this before the surgery...They warned us (including my

mom) about all the risks of her hip replacement surgery but not a word about what the after effects of the anesthesia might be. I was scared to death she might stay that confused and disoriented—some people never do fully get over that. The whole point of her getting her hip replaced was so she could continue to live on her own, and it looked like she might have to go straight to a nursing home *because* of the surgery.”

If you are elderly and have surgery for a knee or hip replacement or for any other reason, the anesthesia can cause permanent brain damage. At age 71 Dan Steele was physically and mentally active and in good health. While cleaning his van he slipped falling over the seat, onto his back, on the concrete driveway. He ruptured several disks and cracked his vertebrae. He had to have surgery. “My dad had no previous signs of Alzheimer’s,” says his daughter. “Then immediately following his surgery ‘boom’...almost like he had just had Alzheimer’s inserted into his brain during surgery or something. From that point, it was on, full blast. His memory quickly deteriorated and five years later, he lies in a hospital bed in my mother’s home, in diapers and plastic sheets, never to even walk again.”

Postoperative mental impairment affects as many as 61 percent of elderly patients undergoing surgery.[1] Six out of every 10 elderly patients will experience some cognitive impairment. In most cases the mental disturbance is only temporary, but in some cases it can be permanent. If the patient is already experiencing some signs of memory loss, as most of us do as we get older, it can worsen and accelerate it. Several studies have shown that general anesthetics can lead to Alzheimer’s disease and Parkinson’s disease, even when neither of these conditions existed prior to surgery.[2-3]

Brenda Plassman, PhD, and colleagues at Duke University Medical Center agree. “Short-term postoperative cognitive dysfunction is common among the elderly,” she says. Her team of investigators examined the long-term effects (over 6 months) of anesthesia in human patients after surgery. They evaluated 856 surgical patients aged 70 years or older. “Our findings suggest an increased risk of dementia after surgery with general anesthesia among older adults,” says Plassman. “This increased risk for dementia may be an important factor to consider when making decisions about surgery, especially those that are elective, in later life.”[4]

While most patients over the age of 60 will experience some cognitive impairment after surgery, how many of these cases would be considered serious with long term effects? A recent study published in the *Journal of Alzheimer’s Disease* shows that serious mental decline is more common than generally recognized, affecting at least 25 percent of patients who have knee replacement surgery.[5] One out of every 4 elderly patients ends up with some degree of brain damage after surgery. This is a complication of knee replacement surgery that is almost never mentioned to patients or their families.

The study conducted by researchers at the University of Florida found that 1 in 4 knee replacement patients who are 60 or older show a significant decline in activity in at least one brain region 48 hours after surgery. About 1 in 7 show declines across all brain networks. For this study, the researchers ran cognitive and brain-imaging tests before and after surgery on 48 patients undergoing knee replacement. Results were compared with adults of the same age who have the same condition—knee osteoarthritis—but did not have surgery. The researchers used an MRI to look at patterns of blood flow in the brain while patients were lying still. Imaging data

helped them understand how blood flow changes affected connections across brain networks related to memory. Subjects who did not have surgery did not demonstrate any significant changes, but a fourth of the participants who had knee replacement surgery showed large declines in connectivity in at least one brain network when tested after surgery.

If you were offered the option of having knee replacement surgery knowing that you had a 1 in 4 chance of ending up with some level of brain damage would you go through with it? Are there other options? Fortunately, yes.

Most people who have knee replacement surgery do so to relieve the chronic pain and discomfort caused by arthritis. Doctors have little to offer arthritis patients except pain killers, anti-inflammatory medications, and surgery. This is why surgery has become so popular. But there are other options.

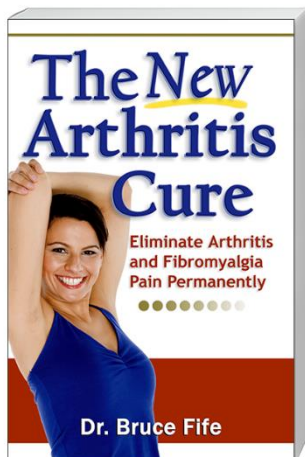
Fasting has long been known to ease the pain of arthritis. Years ago doctors would have arthritis patients fast, consuming nothing but water, for 3 to 5 weeks at a time. Patients commonly reported dramatic improvement in pain and flexibility in affected joints. Most people find fasting to be too difficult for them. Prolonged water fasting, however, isn't always necessary. A modern version of fasting that provides much of the same benefit is known as intermittent fasting. With this type of fasting, you abstain from eating for only a certain number of hours each day. For example, you fast for 16 to 18 hours each day, consuming only water. The remainder of the day you can eat your normal (preferably healthy) diet. If you do the 16-hour fast, you would then restrict all of your eating to an 8 hour window. As an example, you could start your fast after eating dinner, say at 6:00 pm. You would fast for 16 hours straight until 10:00 am the next day. Most of your fasting time is spent sleeping and you have from 10:00 am to 6:00 pm to eat. This is a very simple and easy way to fast. For the 18-hour fast you would restrict all of your eating to about 12 noon to 6:00 pm. You can choose the hours you want to start and end your fast. You do this every day.

There are other forms of intermittent fasting. For example, you could fast 24 hours every other day. Or fast a full day 3 or 4 times a week. Fasting for a full 24 hours takes a little more willpower than the shorter 16 or 18 hours fasts.

If fasting just isn't your thing, you could try bee venom therapy, which has proven to be highly effective and is backed by science. This form of therapy requires the affected joint to be stung by bees or be injected with the venom by a syringe. Although not usually a permanent cure, after receiving the initial series of injections or stings, patients can remain pain-free for months or even years. The slight pain and swelling caused by the venom is short-lived and can prevent months of intense arthritic pain. Bee venom is known to ease the pain of rheumatoid arthritis, osteoarthritis, and gout. In a study with 70 osteoarthritis patients, the results showed an 83 percent positive response, with remarkable improvement in 16 percent, good improvement in 31 percent, and some improvement in 23 percent of cases. Only 17 percent showed no improvement.[6] The results are just as good with other forms of arthritis.[7]

If you don't like fasting or being stung, another effective therapy is a high-fat, coconut oil-based natural foods diet, like the one described in my book [The New Arthritis Cure](#). In this program you eat healthy, natural foods with coconut oil being your primary source of dietary fat

and combine it with oral cleansing. Troublesome foods that promote poor health and depress immune function are eliminated. The results can be remarkable and permanent.



For further reading:

The New Arthritis Cure

by Dr. Bruce Fife

[view here](#)

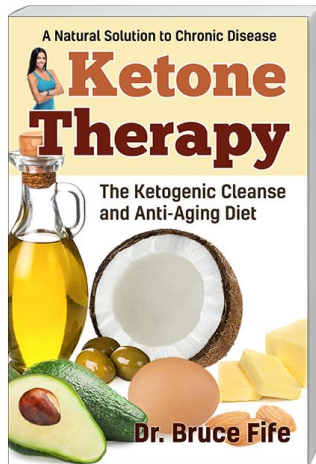
“I have had chronic pain for 10 years,” says Barbara Moody. After following the program outlined in the above book for just 1 month she says, “Here are the results I have noticed so far...Reversed documented osteoarthritis of my spine and knees. Avoided my fifth spine surgery and threatened second fusion. Restored my ability to exercise. I am able to walk down a flight of stairs without pain, limping, or gimping. I can also walk two miles without knee pain!...My prior problems were well documented with MRI and PET scans...The fact that this was so well documented, my doctors were completely amazed and interested. The doctor who did my EMG wanted the name of your book as did my surgeon.”

Sylvia had a similar experience. She states, “I have been suffering from arthritis in the knees for the last 10 years and pain in the lower back for the last two decades. I have tried several allopathic medicines and got temporary relief. I started doing [your program] and observed miraculous changes happening. Within five days my arthritis in the knees and lower back pain are *completely* cured. It is just unbelievable!”

Drugs and surgery are not the only options to treating severe arthritis. Diet can have a powerful effect. Considering all of the potential complications that can occur with surgery, especially in older patients, a dietary approach would be far safer, definitely cheaper, and less traumatic. If you, or a family member, are considering joint replacement surgery it would be to your benefit to consider an alternative solution before taking that drastic step. If a dietary approach doesn't work, you lose nothing, you can always try surgery later.

Whether it is for a knee or hip replacement or for some other reason, sometimes you have no other option but to have surgery. What can you do then to help prevent postoperative mental decline? Anesthetic gases such as isoflurane and halothane seem to cause more trouble than intravenous anesthetics. But most general anesthetics are risky. If surgery is needed, it may be best to opt for intravenous anesthetics as opposed to anesthetic gas. Better yet, if possible, choose local anesthesia, which does not carry the same risk as general anesthesia.

The best thing you can do to protect your brain is ketone therapy—boosting your blood ketone levels just prior to and immediately after surgery. Ketones are known as superfuel for the brain. They provide the brain with a greater amount of energy than glucose allowing it to function better and heal faster. Ketones also activate certain proteins in the brain called brain derived neurotrophic factors (BDNF) that function in brain cell regulation, protection, growth, and regeneration. These BDNFs can help protect the brain from much of the damage that can be caused by anesthesia.



For further reading:

Ketone Therapy
By Dr. Bruce Fife
[view here](#)

Blood ketones can be raised to protective levels in several ways: consuming a ketogenic diet, eating coconut oil, or by taking ketone dietary supplements. In the hospital it may be difficult to maintain a ketogenic diet, so one of the other two options would generally work better. To raise blood ketones to protective levels using coconut oil you would need to consume 3 to 5 tablespoons (45-75 ml) a day, taken with meals.



The third option is to take a ketone dietary supplement, such as [KetoForce](#) or [Nutricost Ketone Salts](#), both of which are available online. These supplements come in liquid and powder form respectively. You combine them in a little water or juice and then drink them down fast. You drink them fast because they taste horrible and the quicker you can get them down, the better.



You would need to take the supplement twice a day. The advantage to the supplements is that they raise blood ketones higher than coconut oil does. Coconut oil or a dietary supplement should be taken the day of the surgery and every day afterward for at least a week.

[Click here for information on KetoForce](#)

[Click here for information on Nutricost Ketone Salts](#)

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1. Image Credit: Zephyr/Getty Images

Coconut Oil: Bringing History, Common Sense and Science Together

Dr. Fabian M. Dayrit

Professor, Department of Chemistry, Ateneo de Manila University, Philippines

Chairman, Scientific Advisory Committee for Health, Asian and Pacific Coconut Community

Abstract

The modern Western diet has suffered the damaging effects of trans fats, much of it from soybean oil. It is suffering another blow, this time from the damaging effects of an excess of omega-6 fats, again from soybean oil.

The vast majority of epidemiological studies do not distinguish between coconut oil and animal fat, and simply refer to them collectively as “saturated fat.” This is a fatal mistake for two reasons: first, the fatty acid profiles of coconut oil and animal fat are very different, and second, coconut oil hardly has any cholesterol while animal fats contain a lot of cholesterol. This means that the results based on animal fat cannot be applied to coconut oil.

Contrary to the claim of the AHA, there is abundant evidence to show that coconut oil and a coconut diet do not raise the incidence of heart disease and are, in fact, part of many healthy traditional diets. Many populations who shifted from a traditional coconut diet to a Western diet have suffered worse health outcomes. However, the historical and scientific evidence in support of coconut oil may not be enough to convince the AHA which favors a high omega-6 diet.

Introduction

“Only wholeness leads to clarity.” -Schiller

The 2017 AHA Presidential Advisory has failed to see the forest for the trees. It has failed to see the worsening epidemics of obesity and metabolic disease, but has focused instead on the details of the meta-analysis of LDL and p values as if these were more important. The AHA has failed to bring the science together with the reality; there is no wholeness in their analysis.

Food is made up of three principal biochemical groups: protein, carbohydrate and fat. Assuming that one needs to maintain a certain level of energy, a food group cannot be decreased without compensation with another group. The “low fat” recommendation promoted by the AHA and the *Dietary Guidelines for Americans* since 1980 has resulted in an increase in refined carbohydrates: the American average fat consumption dropped from over 40% to 33% while carbohydrate consumption increased and obesity more than doubled from 14% to 36.5% (CDC, 2017). Worldwide obesity has likewise more than doubled since 1980, and by 2014, 13%

were obese (WHO, 2016). Meanwhile, heart disease, the principal concern of the AHA and the justification of the *Dietary Guidelines*, has remained as the #1 cause of mortality.

The AHA and the *Dietary Guidelines* have led the Americans – and the rest of the world – astray with its warning against fat, especially saturated fat. However, if we go back to the time before the *Dietary Guidelines* made the world obese, we will find the answer and rediscover what traditional food cultures have been consuming for millennia: the coconut. This essay will show that, contrary to the claims of the AHA, the evidence for coconut oil is based on science and validated by the experience of people.

The modern diet

WHO recommends that the total energy from fat should not exceed 30% along with a shift in fat consumption away from saturated to unsaturated fat and the elimination of industrial trans fats (WHO, 2015). This works out to about 70 grams or about 75 mL of fat. Since we should aim for a healthy total fat diet, how much of each type of fat should we consume? How much saturated fat is desirable and what type should this be? How much unsaturated fat should one have? How can we eliminate industrial trans fats completely? Since there is a trend to decrease the amount of carbohydrates in the diet how should we replace these calories?

It was the rising popularity of coconut oil that may have prompted the AHA to issue its

Presidential Advisory. In its discussion of coconut oil, they said: “A recent survey reported that 72% of the American public rated coconut oil as a ‘healthy food’ compared with 37% of nutritionists. This disconnect between lay and expert opinion can be attributed to the marketing of coconut oil in the popular press.” The AHA then issued a warning against coconut oil: “Because coconut oil increases LDL cholesterol, a cause of CVD, and has no known offsetting favorable effects, we advise against the use of coconut oil” (Sacks et al., 2017).

In addition, the AHA unilaterally disposed of the importance of HDL to cancel the favorable effects of coconut oil, an issue that was tackled in the second article in this series (Dayrit, 2017b). The stated objective of the AHA is to limit the consumption of coconut oil down to 6%. This essay will answer these allegations and show that the claims of the AHA are wrong.

The trans fats fiasco

Coconut oil used to enjoy robust consumption in the US from the 1900s up to 1940, when the war interrupted the importation of coconut. During the war, trans fats, much of it from soybean oil, were used to replace coconut oil in food products (Shurtleff & Aoyagi, 2007). After the war, US importation of coconut oil remained low because of the soybean lobby that wanted to retain its market dominance. By 1999, it was estimated that trans fats in the American diet had reached 2.6% of calories (Allison et al., 1999). In 2006, it was estimated that trans fats may have been responsible for 72,000 to 228,000 myocardial infarctions and deaths from CHD in the US (accounting for 6% to 19%) (Mozaffarian et al., 2006).

Over 30 years after the warning against trans fats was first made, the FDA finally set a compromise rule where a manufacturer can declare “zero trans-fats” if the product contains less than 0.5 grams trans fatty acids per serving (FDA, 2003). This ruling actually does not eliminate trans fats from the food supply; it just hides it.

What is equally lamentable is the AHA’s tepid warning against trans fats. Despite the substantial harm that industrial trans fats have made to heart health, the AHA has not issued any advisory against trans fats in the same way that it has attacked saturated fat and coconut oil.

The high omega-6 fiasco

Linoleic acid (C18:2) and linolenic acid (C18:3) are both essential fatty acids. However, international nutrition institutions recommend that only a limited amount should be taken and that a particular ratio should be maintained (Table 1).

Table 1. Recommendations for daily intake (in grams) of omega-6 and omega-3, and omega-6 to omega-3 ratio from international institutions.

Agency	Linoleic acid (C18:2) Omega-6	Linolenic acid (C18:3) Omega-3	Healthy ratio Omega-6 : Omega-3
European Scientific Committee on Food ¹	2%	0.5%	4 : 1
European Food Safety Authority ²	10 g (4.5%)	2 g (0.9%)	5 : 1
World Health Organization ³	5-8%	1-2%	4 : 1 to 5 : 1

¹ SCF, 1992. ² EFSA, 2009. ³ FAO/WHO, 2008.

The American Soybean Association is a very powerful industry lobby (<https://soygrowers.com/>). Soybean oil is a high omega-6 oil, being made up of about 54% C18:2 (Codex, 2015). It was estimated that from 1909 to 1999 the per capita consumption of soybean oil in the US increased over 1,000 times from 0.01 to 11.6 kg/yr and by 1999, the average American consumption of C18:2 was 7.2% of total calories, with an omega-6 to omega-3 ratio of 10:1 (Blasbalg et al., 2011). The modern American diet has become a high omega-6 fat diet.

In 2009, AHA issued a “Science Advisory” in a paper entitled: “Omega-6 Fatty Acids and Risk for Cardiovascular Disease” (Harris et al., 2009). This paper summarized and defended the health benefits of omega-6 fatty acids. However, the ASA Science Advisory ignored the important issue of how much omega-6 fat should be consumed in the diet, and what the ratio of omega-6 to omega-3 fat should be. Numerous papers have pointed out that a high omega-6 diet and a high omega-6 to omega-3 ratio are linked to heart disease, cancer, inflammatory diseases, and others (Simopoulos 2002, 2008, 2010; Lands, 2012). The AHA Science Advisory dodged both important issues and one might surmise that AHA does not want to set a limit for this fat.

However, the AHA acknowledged that other health agencies have set limits to omega-6 in the diet (Table 1), but it defended its position of not specifying a limit by proclaiming: “The American

Heart Association places primary emphasis on healthy eating patterns rather than on specific nutrient targets.”

This statement is highly irresponsible: since an excess of omega-6 fat is clearly linked to CHD, how can the AHA not issue a warning? This is also highly hypocritical and suspicious: the AHA refused to set a target for omega-6 fat and yet aggressively set a target of 6% for saturated fat in its Presidential Advisory (Sacks et al., 2017). Why the double standard? Is the AHA protecting omega-6 fats?

This omega-6 fiasco will become a replay of the trans fats disaster, with soybean oil as the beneficiary. Heart disease will remain the #1 cause of death in the US (and the world!).

Canola oil for coconut oil?

Aside from soybean oil, canola oil is the other beneficiary of the AHA warning. Since the 1990s, the agroindustry giant Calgene, which is convinced of the beneficial health properties of lauric acid, has been undertaking genetic engineering experiments on canola oil to produce a high lauric acid GMO, called Laurical 35, which contains 37% lauric acid and 34% oleic acid (Shahidi et al., 2007). As the Canola website declared: “Domestically produced high-laurate canola oil could potentially replace some of the \$400 million of tropical oil imported annually, primarily from the Philippines, Malaysia and Indonesia” (Ag Innovation News, 2003). Thus, while the AHA warns against coconut oil, Calgene is set to enter the lauric oil market with a GM product.

Coconut oil, saturated fat, and animal fat: a serious misunderstanding

The vast majority of epidemiological studies do not distinguish between coconut oil and animal fat, and simply refer to them collectively as “saturated fat.” This is a serious misunderstanding. Coconut oil is 65% medium-chain saturated fat while the different types of animal fat contain from 40 to 50% long-chain saturated fat, with the rest being mono- and polyunsaturated fat. In addition, coconut oil contains from zero to 3 mg cholesterol per kg (Codex, 2015), while animal fat contains various amounts of cholesterol depending on animal source (USDA, 2017). (Table 2) Polyunsaturated fat oxidizes readily with heat and, in the presence of cholesterol, will produce oxidized cholesterol. Oxidized cholesterol has been shown to accelerate the development of atherosclerosis leading to heart disease (Staprans et al., 2000). This will not happen with coconut oil because there is only a small proportion of unsaturated fat and very little cholesterol. This is a mistake that Ancel Keys made; it is a mistake that many researchers who followed him have made. Therefore, the so-called “high quality” studies that the AHA Presidential Advisory judged as acceptable evidence against coconut oil cannot be admitted as evidence because of this fatal mistake (Sacks et al., 2017).

Table 2. Comparison of fatty acid profile and cholesterol content of coconut oil and various types of animal fat: butter, beef fat and lard.

Fatty acid	Coconut Oil ¹	Animal fat ²		
		Butter	Beef fat (tallow)	Lard (hog fat)
C4:0, % butyric acid		3		
C6:0, % caproic acid	1	2		
C8:0, % caprylic acid	7			
C10:0, % capric acid	7	3		
C12:0, % lauric acid	49	4		
C14:0, % myristic acid	19	12	3	2
C16:0, % palmitic acid	9	26	27	27
C18:0, % stearic acid	3	11	7	11
C16:1, % palmitoleic acid		3	11	4
C18:1, % oleic acid	8	28	48	44
C18:2, % linoleic acid	2	2	2	11
C18:3, % linolenic acid	1			
Cholesterol, mg/kg	0 to 3	2150	1090	950

¹ Codex, 2015

² USDA

Historical use of the coconut

Contrary to the claim of the AHA, there is abundant evidence to show that coconut oil and a coconut diet do not raise the incidence of heart disease and are, in fact, part of many healthy traditional diets. In the remainder of this essay, we will discuss the historical and traditional consumption of the coconut, health statistics of coconut-consuming populations, and a comparison with the Western (mainly American) diet.

The coconut is one of the most ancient and widespread of edible fruits in the world (Lutz, 2011). It is part of the diet and culinary tradition of virtually all countries where the coconut grows. It is also unparalleled in its overall usefulness as a portable source of food and water and many other useful applications. The settling of the Pacific islands was made possible by the coconut (Gunn et al., 2011). This is affectionately described by Henri Hiro, indigenous advocate for the Polynesian people, in a poem which is found in the Bishop Museum in Hawaii:

“Traveling companion of the Polynesians,
COCONUT tree, indispensable support
For a happy and fulfilled life;
coconut tree of peace, coconut tree of harmony,
eternal coconut tree, with you
life is there.”

Indeed, the coconut is widely revered in many cultures as the “Tree of Life.”

Miguel de Loarca, a Spanish explorer in the Philippines during the 16th century, observed that “The cocoanuts furnish a nutritious food when rice is scarce” (Blair & Robertson, 1906). It was so useful that the Spanish government in the Philippines decreed the planting of coconuts as a source of raw material and as food for the people, especially during drought.

Among some food cultures in the Pacific islands, the coconut accounts for up to 60% of fat intake. There is no report that the coconut has caused ill-health or disease, except for the occasional death from a falling coconut.

Health of coconut-consuming populations

Studies on the influence of dietary coconut oil on heart disease and other health factors have shown that there is no negative effect from coconut oil consumption compared with other oils and that in some cases, better health outcomes can be attributed to coconut oil.

Numerous studies have documented the absence of negative effects from coconut oil. Prior and co-workers (1981) reported that Polynesians from Pukapuka and Tokelau both consume a high saturated fat diet from coconut oil, 34% and 63%, respectively, and yet vascular disease was uncommon in both populations and there was no evidence of harmful effects in these populations due to their diet. A small study of 32 CHD patients and 16 matched healthy controls from the Indian state of Kerala showed that coconut and coconut oil did not play any role in the causation of CHD in this state (Kumar, 1997). A similar study conducted in West Sumatra, Indonesia, involving 93 CHD patients with a control group showed that consumption of coconut was not a predictor for CHD (Lipoeto et al., 2004).

The association between coconut oil consumption and lipid profiles was studied in a cohort of 1,839 Filipino women (age 35–69 years) over a 22-year period, from 1983 to 2005. Lipid analysis showed that the mean TC, LDL, and triglyceride levels and TC/HDL ratio of the women were within the desirable limits set by WHO and that coconut oil intake may enhance HDL levels (Feranil et al., 2011).

A direct comparison between coconut oil and sunflower oil, a polyunsaturated oil, used as cooking oil was conducted to determine their effect on lipid profile, antioxidant and endothelial status in patients with stable coronary artery disease. This study was conducted for 2 years with 100 coronary artery disease patients and 100 in the healthy control group with 98% follow-up.

The results showed that there was no statistically significant difference in the anthropometric, biochemical, vascular function, and cardiovascular events in both groups indicating that coconut oil does not pose any additional risk for heart disease compared with a polyunsaturated fat (Vijayakumar et al., 2016).

On the other hand, there are studies that show better health outcomes in populations that consume coconut oil or a coconut-based diet. In the Philippines, people from the Bicol province who have the highest consumption of coconut showed comparatively low levels of atherosclerosis and heart disease compared with people from other regions in the Philippines who consume less coconut in their diet (Florentino & Aguinaldo, 1987).

The type of fat has a strong influence on obesity. Rural populations of Vanuatu consume fat from traditional sources, which includes coconut, while urban Vanuatu populations consume fat from imported foods, such as oil, margarine, butter, and meat. Despite the fact that rural Vanuatu populations consumed more total calories than the urban population, they had half the prevalence of obesity and diabetes (WHO, 2003).

In the US, it is interesting to note that the states with high coconut consumption – Hawaii and Florida – showed lower rates of heart disease compared to the national average in 2014 (heart disease rate per 100,000): US average (167.0); Hawaii (136.7); Florida (151.3) (KFF, 2017). Similarly, Cuba, a coconut-consuming country that has been spared the Western diet, had a mortality rate from heart disease of 144.8 from 1986 to 1997 (Cañero, 1999).

In summary, dietary studies on populations that consume coconut or coconut oil show no evidence of a higher incidence of heart disease and a number of studies report more favorable health outcomes.

From a traditional coconut diet to a Western diet

A number of studies have shown that populations that shifted from a traditional coconut diet to a Western diet report poorer health status. In 1973, Ian Prior saw the unique opportunity to observe in detail a real time experiment of the effect that diet can have on Polynesians who migrated from their islands to New Zealand. He recorded mortality from heart disease, hypertensive heart disease, and blood lipids, among others. He concluded his paper with this statement: “The high price being paid by the New Zealand Maori, in terms of morbidity and mortality from a range of cardiovascular and metabolic disorders and the contrast with the picture seen among atoll dwellers, gives a clear indication of how exposure to the ways and diet of Western society can influence health and disease patterns” (Prior, 1973).

A 1999 comparative study among American and Western Samoans showed that a shift to a modern diet increased their carbohydrate and protein consumption and decreased their overall fat, in particular, saturated fat. This shift was identified as the cause of their increased incidence of obesity and cardiovascular disease (Galanis et al. 1999). WHO (2003) reported that Pacific islanders “were 2.2 times more likely to be obese and 2.4 times more likely to be diabetic if they consumed fat from imported foods rather than from traditional fat sources.” Among the most

commonly consumed imported fats were vegetable oil and margarine which replaced coconut oil.

Will there be a science-based conclusion?

In 2016, Eyres and co-workers conducted an assessment of the literature to verify the merits of the claim that coconut consumption had favorable effects on cardiovascular risk factors. After reviewing 8 clinical trials and 13 observational studies, they concluded that: “Observational evidence suggests that consumption of coconut flesh or squeezed coconut in the context of traditional dietary patterns does not lead to adverse cardiovascular outcomes.” Strangely, they ended their paper with this statement: “However, due to large differences in dietary and lifestyle patterns, these findings cannot be applied to a typical Western diet” (Eyres et al., 2016).

Despite the exacting standards of science that Eyres and co-workers applied, why can't these findings be applied to a typical Western diet? The authors did not provide an explanation. With this statement, the authors have effectively put science aside.

This set of three essays has provided evidence from science and from millennia of people's experience which provide a holistic picture of the health properties of coconut oil. These essays have also pointed out specific aspects where the AHA and the Dietary Guidelines have perpetuated errors, many of which date back to the bias of Ancel Keys against saturated fat. The mistake of assuming that animal fat and coconut oil are similar means that much of the basis for the warnings against saturated fat is erroneous. In addition, recent discoveries regarding small dense LDL and oxidized LDL mean that conclusions from many LDL studies are questionable. Truly, wholeness leads to clarity.

These should be enough basis to reverse the AHA's campaign against coconut oil, but its real reasons may not be based on science but on its bias for a high omega-6 diet. #

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