

## NEW YORK CITY COLLEGE OF TECHNOLOGY

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# WHY GINGER?

Ginger! Shlould We Care?

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# WHY GINGER?



Ginger is a remedy or herb that well known for thousands of years and has proven its strength many different ways in the past. Ginger is grows from its own root. It can be consumed and used several ways like raw (piled skin), with tea, honey, in drinks, in cooking and even in food preservative. Many of us are already

consuming it in some form, but may not fully taking advantage out of it. Its compound can fight back or prevent many deadly diseases. For over thousand years, Chinese medicine has recommended that the ginger cure and prevent many health problems. It promotes health benefits and prevents or reduces the chance of diseases; we must make it available and publicize.

## **Benefits of Ginger:**

We may unaware of many amazing benefits of ginger. To get the full benefits out of it, we have to consume it in many different forms depending on someone's physical condition. Ginger might not fully cure diseases and cannot fully prevent many deadly diseases. However, regularly consumption of ginger depending on doctor's recommendation can minimize the chance of many deadly diseases and cure many diseases.

## **Coronary Heart Disease:**

Researches done in rats and mice's shows positive result, it reduces bad cholesterol and increases good cholesterol for healthy heart, it might able to minimize, prevent or cure human coronary heart disease too.

According to University of Maryland Medical Center, study done on rat shows that "when given a single large dose (10 g) of ginger, significant reductions in platelet aggregation were seen, indicating that large doses are necessary for the greatest benefit." <sup>2</sup>

According to Journal of Nutrition, study done in mice shows that ginger extract has "antiatherogenic effect is associated with a significant reduction in plasma and LDL cholesterol levels and a significant reduction in the LDL basal oxidative state, as well as their susceptibility to oxidation and aggregation." <sup>3</sup>

They mentioned that its ability to reduce triglycerides and LDL (bad cholesterol) and to increase HDL (good cholesterol). Ginger promotes better blood circulation and keeps the blood pressure low. Possibly, early adoption and maintaining the blood pressure using ginger doses might be a lock to close the door for other diseases.

#### **Diabetes:**

Ginger can increases insulin level and decreases glucose levels, which are two main processes need to keep the type 2 diabetes in control.

According to University of Maryland Medical Center, study done on rat shows that "treatment with ginger significantly increased insulin levels and decreased fasting glucose levels. Treatment with ginger also produced other favorable effects in diabetic rats, including decreases in serum cholesterol, triglycerides, and blood pressure." <sup>2</sup>

According to the U.S. National Library of Medicine "the study demonstrated that daily consumption of 3 one-gram capsules of ginger powder for 8 weeks is useful for patients with type 2 diabetes due to FBS and HbA1c reduction and improvement of insulin resistance indices such as QUICKI index." <sup>9</sup>

According to National Center for Biotechnology Information U.S. National Library of Medicine - "Ginger improved insulin sensitivity and some fractions of lipid profile, and reduced CRP and PGE<sub>2</sub> in type 2 diabetic patients. Therefore, ginger considered as an effective treatment for prevention of diabetes complications"  $\frac{10}{10}$ 

Therefore, consuming ginger regularly in early stage of diabetics might keep it under control. It is not only for better health but also for saving the rising cost of insulin medications. Ginger is a very effective to lower the blood sugar level and there are warnings for the person already with low blood sugar must avoid it.

## **Cancer Prevention:**

Many study shows that ginger prevent many type of cancer, which is one of the biggest concerns in US because we consume less ginger then Asian countries.

According to University of Maryland Medical Center study done on rat shows that "When mice were injected with [6]-gingerol, the growth of cancerous melanoma cells was reduced." <sup>2</sup>

According to research at the University of Minnesota's Hormel Institute in Austin, Minn.-The substance that gives ginger its flavor appears to inhibit the growth of human colorectal cancer cells, The University of Minnesota has applied for a patent on the use of [6]-gingerol as an anti-cancer agent," <sup>5</sup>

Ginger contain [6]-gingerol agent which is claimed to cure cancer and keep the tumor under control. This agent is already in use to produce medicines commercially. There could be possibilities that mixing or modifying extract of ginger agents and extreme hot Chili agents for new experiments to find a cure: not necessarily, experiment like this but similar, can bring cure for a cancer or other diseases.

### **Osteoarthritis:**

According to the Miami Veterans Affairs Medical Center and University of Miami, "A highly purified and standardized ginger extract had a statistically significant effect on reducing symptoms of OA of the knee. This effect was moderate".

Even though it says the effects are moderate however regular recommended consumption of ginger might increase the effectiveness.

#### Reduce Pain:

Study done by university of Georgia showed that "daily ginger supplementation reduced the exercise-induced pain by 25 percent."  $^4$ 

Therefore, if it can reduce exercise-induce pain than we can say it is similar to the painkillers. Some believe it is also an anti-inflammatory remedy. Some says it also works for stomachache, painful menstrual period, migraine and toothache but there are controversies about the claims.

## **Strengthens Immunity:**

According to the American Family Physician, "Ginger was found to be superior to placebo and as effective as vitamin B6."

According to University of Maryland Medical Center study -"supplemented rats had significantly less lipid oxidation and higher level of enzymatic and non-enzymatic antioxidants."  $\frac{2}{3}$ 

It is full of antioxidant, which is the essential ingredients that fight back many diseases in our body and promotes better health.

#### **Motion Sickness:**

According to American Journal of Physiology, "ginger may act as a novel agent in the prevention and treatment of motion sickness. Ginger is a well-known useful remedy for nausea, which is relate with motion sickness."

Study shows that those taken ginger powder experienced less motion sickness.

Some benefit already known to us for many generations. According to the sources, there are many benefits of ginger, only few major benefits described and analyzed above. Some of the other benefits of ginger approved by German commission e are:

- > Loss of appetite
- > Morning sickness
- Dyspeptic complaints
- Travel sickness

# Why to make it available:

We need further research about foods and remedies that should be number one priority in our daily living to prevent and cure diseases. We need to published and introduce food and remedies that will not only benefit everyone individually but also reduces our national healthcare cost in large. It is the time to advertise ginger nationally and giving it a priority, encouraging everyone to increase consumption also making it accessible for everyone. Government spent billions of dollars to prevent flu, advertising to wash hand, cover cough and vaccination, which is necessary for better safer health. However, advertising the ginger will enlarge the protection of flu. A study from Kaohsiung Medical University shows that "Fresh, but not dried, ginger is

effective against HRSV-induced plaque formation on airway epithelium by blocking viral attachment and internalization." Eventually, it will destroy the some bad oral germs, body toxins so cough or sneeze will minimize the effect, which is one of the bigger concerns in cold and flu prevention and hepatitis B virus. It might prevent new strain of viruses or bacteria from restructuring and reorganized in our body system.

On the other hand, it will prevent many other diseases like diabetics, Osteoarthritis, heart diseases and cancer, which are biggest concern for our health. If we can reduce them even in small percentage, using gingers that might save many lives and billions of dollar.

## How to make it available:

Making it available will bring it close the consumers and they can have access to it whenever they want; like chew-gums, painkillers, cold drinks and sodas, which we see in vending machines. Encouraging Food and beverage companies to keep one natural ginger drink with other beverages in every vending machine. There are opportunities for startups to make it available in a raw (without skin) form inside a package without any artificial preserver. It can be preserve with honey layer, honey is a great preservative and it ties with it perfectly. It can preserved using a newly invented ginger box (temperature controlled) and anyone with a phone application press the button and it will drop ginger or other remedy. Encouraging, everyone to consume it by publicizing it in place like subway, bus and TV. We see advertisement about peanuts in subways. Even though a peanut also has some side effect of over eating and a person with certain health condition restricted to consume it. Therefore, ginger should be next for national publication along with the benefits, side effects, regular maximum level of consumption and ways of consumptions.

## **Conclusion:**

If it consumed regularly for long-term (recommended by doctor) it might cure many diseases that never we deeply think of before. Moreover, extensive research, experiments and study need to obtain to find its accurate effectiveness. There should be high prioritize research to explore about it in micro scale. Alternatively, it might be a substitute source for someone that cannot afford expensive medicines or does not have access to those medicines. Keep it in your

medicine box, speak to your doctor about it, it might be more beneficial than you think of, or has parallel benefits with your medicines. Consult with the doctor how often you can consume it to prevent and protected from deadly diseases. It also has certain side effects if overdosed and a person with certain health conditions must avoid it. **Do not uses it with blood thing** medication, Diabetes medications, may lower blood sugar, lower the blood pressure, if pregnant, children under 2 year old and make sure consult with your doctor. There are some drawback and debate about its effectiveness. Some conventional commercial medicines has many side effects also and not effective as it describes. This is not a final proposal about ginger effectiveness, before considering any decision this document must reviewed and analyzed by medical professionals.

Note: Information in this document is not to prescribe or cure any diseases.

#### Citation:

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