

# Tinospora Crispa As A Future Cure For Obesity/Cholesterol

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**Abstract:** Nowadays, people suffering from obesity/cholesterol are often heard. This disease is due to the excess of mainly carbohydrate and lipid in an individual's diet and the lack of expenditure of energy such as exercise. Therefore, the patawali plant, or its scientific name, *Tinospora crispa* is believed to be a traditional cure for the problem. A sample of patawali plant (*Tinospora crispa*) juice, lime juice, ginger juice and grapefruit juice was prepared for the experiment. Next, fresh chicken fats are chosen and prepared as they contain a high value of cholesterol. The chicken fat was rinsed with water, dried using a filter paper and then immersed in the juice samples for a duration of 1 hour. The initial and final mass of chicken fat was recorded. At the end of the experiment, it is found that ginger and *Tinospora crispa* shows significant in reducing the mass of chicken fat. Thus, it can be concluded that *Tinospora crispa* and ginger has the potential to be the future cure for obesity.

**Index Terms:** Obesity, Cholesterol, *Tinospora crispa*, Chicken Fat, future Cure, Patwali plant and Gudhuchi.

## 1 INTRODUCTION

Obesity is a condition in which the cholesterol level in an individual's body is too high. Thus, causing the afflicted individual to be overweight, have a unusual large body and being constantly exhausted. Other disease such as high blood pressure may lead as a result of obesity. Therefore, an experiment was conducted to confirm the belief of the ability of *Tinospora crispa* in reducing cholesterol level. *Tinospora crispa* which is know by the common name Guduchi is an herbaceous vine of the Menispermaceae family. The alkaloid content found in the stem of this herbaceous vine is beneficial in treating wounds and cuts. Research also indicated that it helps to increase one's appetite and lowers insulin levels in the blood.

## 2. Objectives

- Identifying a cure that is suitable in treating obese patients.
- Knowing how suitable *Tinospora crispa* is in treating obese patients.
- Finding an alternative cure for obesity without depending on chemical drugs solely.

## 3 Investigation Methods

1. The grapefruit and lime was cut using a small knife and then squeezed to obtain their juices.
2. The *Tinospora crispa* was cut using a small knife and crushed into smaller pieces with a mortar. Then, one portion of the sliced and crushed *Tinospora crispa* was boiled in water while another portion was put into a blender.
3. The *Tinospora crispa* was boiled for 30-45 minutes while the other portion was broken down into even smaller pieces by the blender. This is because the juice cannot be directly obtained by squeezing the *Tinospora crispa* itself as it is very hard and stiff.
4. After boiling and blending the pieces of *Tinospora crispa*, their juice was able to be obtained.
5. The ginger was cut into smaller pieces by using the small knife and then crushed or mashed with a mortar. After that, the
6. Ginger juice was obtained by simply squeezing the mashed pieces.
7. The juices were filled in beakers, 15ml for each juice.
8. The initial mass of a chicken fat was weighed and

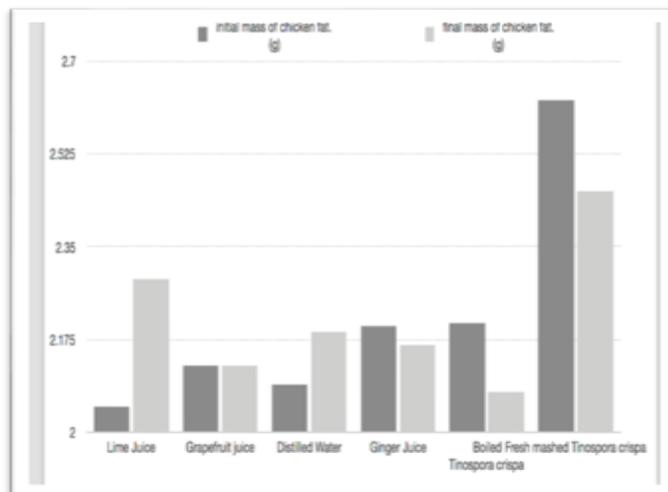
recorded. Then, the chicken fat was immersed in a beaker containing lime juice.

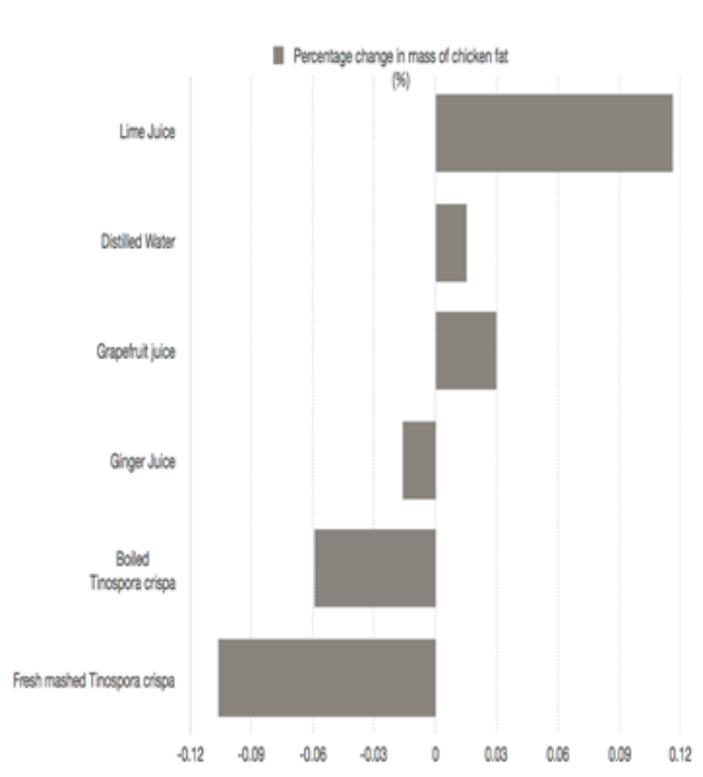
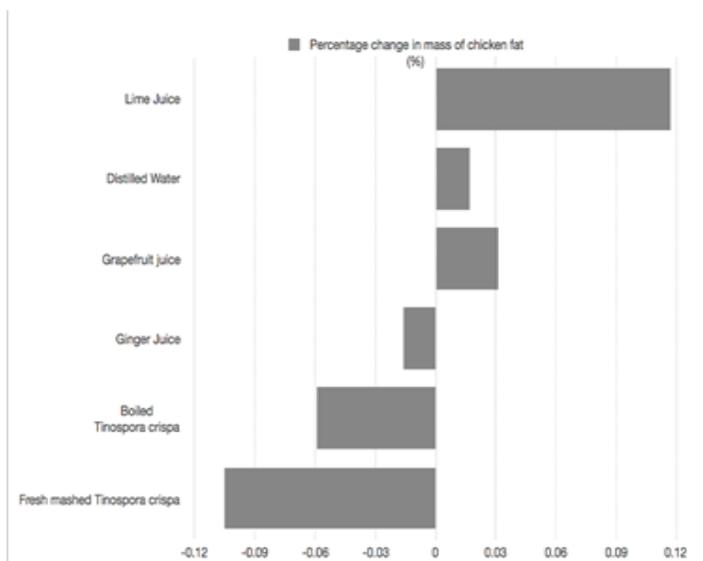
9. After about 1 hour, the chicken fat was taken out, dried with a filter paper and its mass was weighed and recorded.
10. The percentage reduction of mass of chicken fat is calculated.
11. Steps 7- 9 was repeated by immersing the chicken fat in beakers containing grapefruit juice, *Tinospora crispa* juice, ginger juice and distilled water.

## 4. Observations

### 4.1 Test 1

Type of juice immersed in.	initial mass of chicken fat. (g)	final mass of chicken fat. (g)	Percentage change in mass of chicken fat (%)
Lime Juice	2.050	2.290	+11.7%
Distilled Water	2.090	2.125	+1.7%
Grapefruit juice	2.125	2.190	+3.1%
Ginger Juice	2.200	2.165	-1.6%
Boiled <i>Tinospora crispa</i>	2.205	2.075	-5.9%
Fresh mashed <i>Tinospora crispa</i>	2.625	2.455	-10.5%





4.2 Test 2

Type of juice immersed in.	initial mass of chicken fat. (g)	final mass of chicken fat. (g)	Percentage change in mass of chicken fat (%)
Lime Juice	2.040	2.279	+11.6%
Distilled Water	2.070	2.125	+1.54%
Grapefruit juice	3.125	3.190	+3.0%
Ginger Juice	2.210	2.175	-1.6%
Boiled Tinospora crispa	2.205	2.075	-5.9%
Fresh mashed Tinospora crispa	3.625	3.450	-10.6%

Conclusion

After conducting all the experiments, it is proven that Tinospora crispa and ginger has the potential to be an effective agent in reducing the cholesterol level as the mass of the chicken fat was managed to be reduced.. Thus, it is possible for Tinospora crispa to be added in the future as one of the ingredients in the slimming products due to its ability to reduce cholesterol level. It also has been proven that this plant is safe to use compared to other chemical drugs or medicines out there. Besides that, this plant also has the potential of being the future primary cure for high blood pressure as it has its own commercial value in terms of curing this disease.

