

## **The comparison of the oil-water retained rate between the different style plates**

Chang-Tsang Yeh<sup>1</sup> Tsung-Liang Lin<sup>2</sup>

**Abstract.** the purpose of this study was to compare the difference of the oil-water retained rate between different style plates. Methods: An ordinary commercial plate and the patented new health plate were used in the same meal program, and the oil-water retention were calculated for each meals. Results: Oil-water retention in patented dish was significantly more than the ordinary plate. Conclusions: Patented new plate has designed an additional V-shaped grooves which can keep more oil and water stay in the plate, and this new plate can fix vegetable, fruit, protein in the proportion to be a balanced and healthy diet. New plate not only can reduce oil-water in the dish and the proportion of food can clearly teach student s to understand and develop good control their diet behavior.

**Keywords: oil, water, retained**

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## 1. Introduction:

A lot of people have already had eating habit of high oil, high salt in daily life, this has not merely already influenced the adult's health, the relative nutrition that will influence the child indirectly too is absorbed, will choose the parents of more fruit vegetables in the diet of daily life, their child will have more fruit vegetables[1]. USDA put out "My Plate" in 2011[2], the round dinner plate of dietary guidelines, Instead of continuing to use "Food Pyramid" of the past 20 years, offer the reference which the people absorb as nutrition, can present the proportion in the balanced healthy diet of all kinds of food even more, the dinner plate is divided into four parts, vegetables, fruit, cereal and representing protein of food of meat; There is a small dish outside the disc, represent the dairy products. But contain high salt, high lipoprotein, high gourmet powder, high chemical residue in the meal profit, may last fat, heart disease then what has been may cause these at the bodied burden, at diseases such as blood pressure, diabetes, etc[3]., too can also can lead to the fact bad influence to the psychology while being fat. So, the annexure that the dinner plate being seen does not all let the profit of dish kept at present on the market, for avoid, increase the intersection of dish and edible rate of profit again outside diet, set in the trough offering have several the intersection of V and collection oil groove of shape in every, help the intersection of deposit and meal flow the intersection of dish and the intersection of the Republic of China and the intersection of patent and new the intersection of M44115 and health dinner plate of profit that come down, fixed vegetables of dinner plate of this health, fruit, protein, candy proportion in the balanced healthy diet of all kinds of food, not only can reduce the edible rate of the profit of dish also can know that understand the balanced proportion of food.

## 2. Methods

This experiment adopts general dinner plate and new health dinner plate of the patent sold on the market and carries on the same procedure of having a dinner; carry on the comparison of the keeping rate of dish profit of buffet for 7 days in time of dinner, the step of this experiment is as follows:

1. Equipped with 3 kinds of vegetables, an egg meat and cereal each one of dinner plate in quantitative way, every share is about 600 as each time.
2. Put the food the dinner plate for about 10 minutes before eating.
3. And then insert the food to leave the dinner plate with the chopsticks.

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4. Quench remaining the profit of dish in the dinner plate into the graduated cup (dinner plate).
5. Note down the water yield of dish oil collected of the 7th.
6. Carry on t and assay statistical analysis.

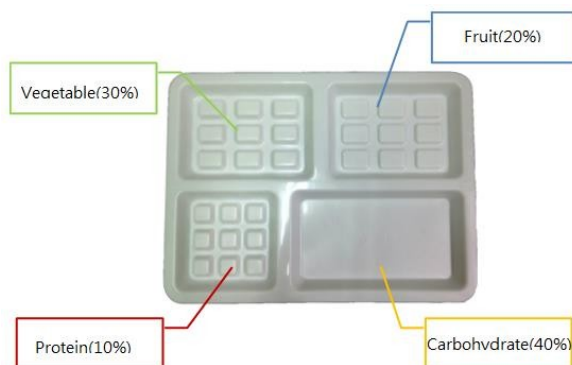


Fig1. Different style plates



Fig1. Collect the profit

### 3. Statistics and data analysis

Data analysis was conducted using the SPSS statistical software for Windows 20.0. Analysis of descriptive & t-test was used as the statistical method at a significance level ( $\alpha$ ) of .05.

### 4. Results and Discussion

It is different dinner plates in the situation of the keeping rate of dish profit of dinner on the 7th, general dinner plate and keeping amount of the profit of dish during experiment of dinner plate of the health differ by about 63c.c, obviously reveals the dinner plate of the health can reduce the edible rate of the dish profit of buffet even more than the general dinner plate, and then estimating can reduce about 250c.c dish

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profit to use during a dinner plate of health of one months, and then estimate and use the dinner plate of the health and can be reduced by water yield of dish oil of about 3000c.c in one year.

Table1. The Summary of different dinner plates are in the situation of keeping rate of dish profit of dinner on the 7th

	1 day	2 day	3 day	4 day	5 day	6 day	day 7	Total
General plate	10	16	15	12	9	11	15	88
Different style plates	20	25	30	20	15	18	23	151
Differ	10	9	15	8	6	7	8	63

The unit in dish keeping rate

Table2. The Summary of different dinner plates are assayed in the dish profit t-test of dinner on the 7th

items	M	Sd	Md	t	p
General plate	11.57	2.76	-9.0	-8	.0
Different style plates	21.57	4.93			

\*p<.05

### 5. Conclusion and Recommendation

The dinner plate sold through the general business in this research is compared with new health dinner plate of the patent[4], and carry on the collection of the keeping rate of the profit of dish during 7 days at dinner. Ordinary plate has not designed the V -shaped annexure to cause the profit of dish to corner on the bottom. Therefore, the food will carry more oil. Moreover, ordinary plate carries more unnecessary energy because the plate can't teach students the correct proportions on diet. The new dinner plate has the V -shaped annexure, and fixed vegetables, fruit, protein, candy proportion in the balanced healthy diet of all kinds of food can not only reduce the edible rate of the profit of dish and can teach subjects understand the balanced proportion of food, and to teach and control good diet behavior.

## 6. References

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