

# Has Pressure to Reduce Salt Consumption Put Us at Risk for Iodine Deficiency?

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## Introduction

- Iodine is an integral part of the structure of thyroid hormone in the body.
- Companies began to iodize table salt to increase iodine consumption in 1924 and by the 1950's about 70% of households only used iodized salt (1,2).
- In 2008, only 1/5 of the salt sold in the United States was iodized. (3).
- The pressure to decrease salt consumption may be putting the U.S population at risk for iodine deficiency today because of decreased discretionary salt use (4).

## Purpose

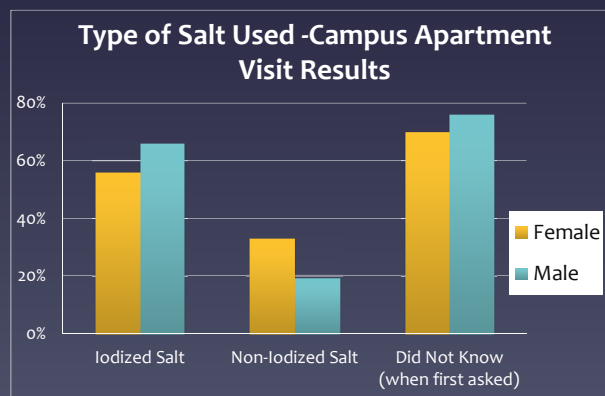
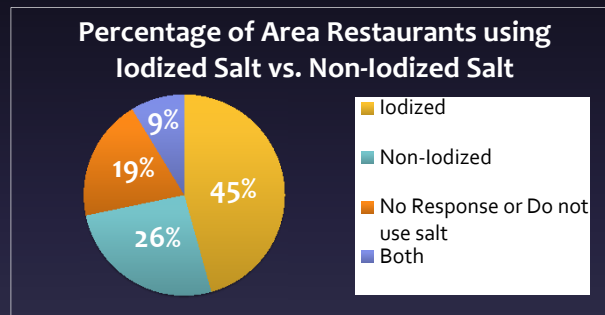
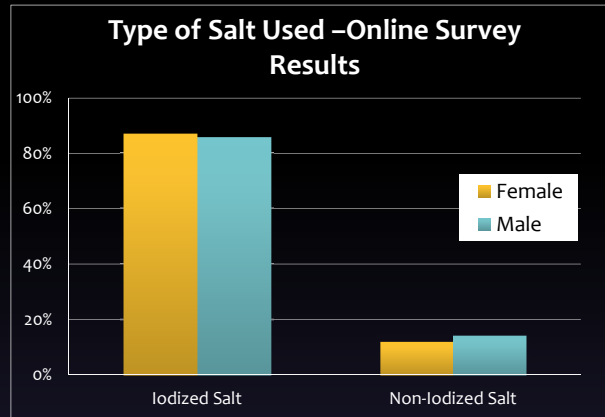
- To investigate ad libitum salt use, more specifically iodized salt use, and selection of high iodine foods in college students.
- To investigate the use of iodized salt in college food service, area restaurants and campus apartments.

## Methods

- Received IRB exemption approval
- About 890 students completed an online survey regarding salt use and food selections.
- The use of iodized salt was determined in 28 sit down restaurants and 19 fast food restaurants via phone.
- Visited 107 campus apartments to determine type of salt used.
- Measured salt use in campus food service facilities over a three day period
- Used an unpaired z-Test for proportions to determine if there was any difference between men and women.

## References

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## Results

- Only 21% of students reported put additional salt on their food via saltshaker (Online Survey)
- 86% of those who reported using salt reported using iodized salt in an online survey.
- 73% of students during apartment visits had to check to determine the type of salt used in their kitchen (76% Male, 70% Female).
- 61% of male and female students use iodized salt in their apartments
- Only 2 of the 824 (0.24%) of students regularly choose foods from a list of the top 10 sources of iodine. (Online Survey)
- 65% of area sit down restaurants use iodized salt
- 32% of area fast food restaurants use iodized salt
- There was no significant difference for salt used between men and women ( $p < 0.05$ )

## Conclusions

- Lack of awareness and knowledge about iodized salt because 2/3 of were students unaware of the type of salt used and the discrepancy between the type of salt students reported having and actually had in their apartments.
- The iodine status in the population may be declining because 1) fewer people are using salt shaker 2) not all restaurants use iodized salt in cooking.
- Low iodine status is particularly a concern for women who become pregnant because of the severe consequences of iodine deficiency to the baby during pregnancy.
- Iodine status may become a bigger issue due to the pressure to reduce sodium and as more foods in the diet are processed because many processed foods do not use iodized salt.