



NHANES ANALYSIS

Meals that Include Mango Linked to Higher Nutrient Intakes in Young Women and Older Adults

Mango Consumption was Associated with Higher Nutrient Intake and Diet Quality in Women of Childbearing Age and Older Adults

FROM HEALTHY PREGNANCIES TO HEALTHY AGING:

Research shows diets that include mangos (compared to no mangos) improve diet quality and intakes of vital nutrients crucial for growth and aging¹.

WHY IS THIS TOPIC IMPORTANT?

Women of childbearing age and older Americans have unique nutrition needs (compared to the average U.S. population) that are often not being met by current dietary patterns². In fact, based on the Healthy Eating Index—a dietary pattern scoring system that tracks how well people follow Dietary Guidelines for Americans—both populations continue to significantly fall short in nutrients needed more of and less of in their diets.

STUDY APPROACH:

The study included 16,774 women of childbearing age (15–44 years of age) plus 18,784 older adults (60 years and older). Two 24-hour dietary recalls were used to capture dietary patterns. Mango consumers were defined as individuals who report consuming fresh mango in either of the dietary recalls (usual intakes were ~one-half cup mango among diets that included mangos).

STUDY FINDINGS: WOMEN OF CHILDBEARING AGE



Diet quality **16% higher** in mango consumers

HIGHER INTAKES OF:

70% higher vitamin C	31% higher Fiber	30% higher vitamin E
26% higher Folate	14% higher Magnesium	11% higher Potassium



LOWER INTAKES OF:

20% lower Added Sugars
15% lower Saturated Fat
11% lower Total Fat

STUDY FINDINGS: OLDER AMERICANS



**Diet quality was 13% higher
in mango consumers**



**20% higher intakes of fiber
and vitamin C**



**Lower intakes of cholesterol, niacin, phosphorus,
protein, riboflavin, saturated fat, and vitamin B12.**

Many of these nutrients are found in high amounts in animal products. Researchers associated lower intakes with those who follow a vegetarian diet.

MORE ABOUT THE STUDY

This study builds upon the body of evidence to support the health benefits associated with fruit intake². Meals that include a half cup of mango (compared to no mango) may help improve nutrient status and diet quality¹.

One hypothesis the authors made was that mango consumers likely use fruit, specifically mango, to curb sweet cravings in place of energy-dense foods with added sugar and lower nutrient content. For pregnant and lactating women, fiber from fruit can positively impact gestational diabetes. Calcium and magnesium intake can impact the development of hypertension or preeclampsia during pregnancy³. For older adults, adding fruit, including mango, can boost their immune system and lower risk of overweight and obesity⁴. Both life stages require higher nutrient intakes but have different health risks associated. Incorporating mangos at meals is a simple, healthful, and affordable choice.

Future studies are warranted that look at the specific nutrients and the impact of mangos on preventing chronic disease.

This study was observational in nature and relied on self-report food recall data. While the NHANES data sets are large, mango consumers were a small percentage of the group. Long term impact of regular and repeated mango consumption should be investigated. Using the data set for women of childbearing age instead of pregnant and lactating females makes it difficult extrapolate the results to a pregnant or lactating life stage. Groups were not broken down by demographic variables and mango can be more popular with certain ethnic groups.

**ADDING A HALF
CUP OF MANGO
REGULARLY TO
ONE'S DIET CAN
HELP IMPROVE
NUTRIENT STATUS
AND DIET QUALITY.**

REFERENCES:

1. Fulgoni, K and Fulgoni, V.L. III. Mango Consumption was Associated with Higher Nutrient Intake and Diet Quality in Women of Childbearing Age and Older Adults. *Nutrients*. 2024, 16, 303.
2. U.S. Department of Agriculture and U.S. Department of Health and Human Services. *Dietary Guidelines for Americans, 2020–2025*. 9th Edition.
3. Food Data Central. 169910 <https://fdc.nal.usda.gov/fdc-app.html#/food-details/169910/nutrients>. Accessed on 15 April 2024.
4. Papanikolaou Y, Fulgoni VL III. Mango Consumption Is Associated with Improved Nutrient Intakes, Diet Quality, and Weight-Related Health Outcomes. *Nutrients*. 2022; 14(1):59.
5. Schoenaker DA, Soedamah-Muthu SS, Mishra GD. The association between dietary factors and gestational hypertension and preeclampsia: a systematic review and meta-analysis of observational studies. *BMC Med*. 2014;12:157. Published 2014 Sep 22.



For about 70 calories, a 3/4 cup serving of Mango provides³:

50% of your daily vitamin C
EXCELLENT SOURCE

15% of your daily folate
GOOD SOURCE

15% of your daily copper
GOOD SOURCE

CULINARY CORNER



Mango Bruschetta



Thai Mango Chicken Soup



Mango Salsa

