



## **Difference in fruit and vegetable intake between older men and women**

Baker, Anna., Wardle, J. (2003). Sex differences in fruit and vegetable intake in older adults. *Appetite*, 40, 269 – 275.

### **Why is there a difference in fruit and vegetable intake between older men and women?**

Consuming fruits and vegetables is essential to a healthy lifestyle and in most Western countries, fruit and vegetable intake is well below the recommendations of at least five servings a day. Many studies have found that women eat more fruits and vegetables than men even though they eat smaller portions overall. One possible reason for this is nutrition knowledge. It was noted in many studies that a large portion of the North American population are unaware of the relationship between fruit and vegetable intake and the prevention of heart disease and cancer. Many also did not know the recommended number of servings per day of fruit and vegetables. In addition, women have a greater tendency to choose foods lower in calories which may lead to healthier food choices. Taste preference is another possible reason for gender differences. The focus of this study was to examine to what extent knowledge, attitudes and preferences influence fruit and vegetable intake of older men and women.

### **What was done?**

Participants in this study were older adults aged 55 – 64. They received a letter explaining that cancer screening is available for them in one of 15 colorectal cancer screening centres across the UK and were asked whether they were interested in participating. Interested participants were randomized to screening or usual care. Out of the 15 centres, three centres were chosen to participate in the study. Participants in the screening group attending one of the three centres were invited to complete a simple questionnaire about their diet; 1255 questionnaires were sent out from the clinics. Most of them were completed and handed back to the clinic. For those that did not complete the questionnaire at the clinic, they took it home to be completed and returned via mail.

A validated nutrition knowledge questionnaire was used to confirm participants' knowledge of current recommendations for intake of fruit and vegetables and awareness of diseases related to fruit and vegetable consumption. Six questions were also asked to explore negative attitudes towards fruit and vegetables, including evaluations of convenience, ease of storage and preparation, taste and cost of fruits and vegetables. Liking for taste of fruit and vegetables were evaluated from ratings that ranged from strongly dislike (1) to strongly like (5). Questions about age, marital status, gender, level of education, housing (ownership or rental) and car ownership (yes or no) were also asked on the questionnaire. SPSS version 10.0 was used to evaluate the difference in responses between men and women on intake, knowledge, preferences and attitudes.

### **What was found?**

1054 participants completed the questionnaire, consisting of 439 (48%) men and 524 (52%) women, with an average age of 60 years. It was noted that female participants generally had fewer educational qualifications than males. No gender differences were seen in housing or car ownership. Based on self-reported weights and heights, the average BMI was in the overweight category. There were more women than men on diets of some kind and dieting to lose weight was commonly reported.

Women ate a total of 3.5 servings a day of fruits and vegetables, which was significantly higher than the intake for men (2.5 servings). Women ( $n = 171$ ) were more likely to eat the recommended 5 or more servings of fruit and vegetables a day than men ( $n = 75$ ). Men estimated the recommended intake of fruit and vegetables to be less than women, and fewer men correctly guessed that five or more servings per day is recommended. Fewer men knew the relationship between fruit and vegetable intake and disease. In addition, fewer men than women reported liking vegetables, but more men than women reported liking fruits.

There was a significant positive correlation between total intake of fruit and vegetable intake and nutrition knowledge. Participants that were aware of the relationship between fruit and vegetable intake and disease consumed more fruits and vegetables. There was also a strong correlation between liking for fruit/vegetable and fruit/vegetable intake. A correlation was also found between attitudes and intake. In addition, a relationship was observed between fruit and vegetable intake and being on a weight loss diet for both men and women. Those who wanted to lose weight ate more fruit and vegetables than those who did not want to lose weight.

### **Importance of this Research:**

This study confirms that many people consume much less than the recommended five servings of fruit and vegetables a day. Men consume considerably less fruit and vegetables than women; fewer than 20% of men eat the recommended amount. This study also confirmed that lower levels of nutrition knowledge correlates to lower levels of intake. It was also noted that men have poorer knowledge of dietary recommendations than women and less recognition of the link between diet and disease.

### **Applying what was found**

It was found in this study that the main sources of health and nutrition information were in commercial places like supermarkets. This presents a possible reason why men are less knowledgeable about health and nutrition. Since this study suggests that men's low intake of fruits and vegetables is due to poor nutrition knowledge, healthy eating programs should be promoted and directed particularly towards men.

**Article Brief Written By: Joanne Pun**