

Study And Compare Male, Female Of Different Age Of Organic Food Users And Inorganic Foods Users With Regards To Stomach Problem Like Epigastric Pain On Empty Stomach Or Belching And Abdominal Pain

Th. Supriya Devi^{1*}, H. Sophia Devi², Sanasam Bharati Devi³,

^{1*}Department of Home Science, Liberal College,
 ²Department of Home Science, Liberal College
 ³Asst. Prof. Department of Home Science, Thambal Marik College.

ABSTRACT

Researchers attempted to examine the effects of both organic and inorganic food consumers in the current investigation. My research's primary objective is to examine and contrast consumers of organic and inorganic foods. This is in reference to a survey that people between the ages of 20 and 30 years, 30 and 40 years, and over 45 years old participated in about certain physical issues. The main goals of the current study are to investigate and compare the effects of eating organic foods and eating inorganic foods on epigastric pain on an empty stomach, belching, and abdominal pain after two to 2.5 hours of eating for males and females in the age groups of 20 to 30, 31 to 40, and 45 and above. Researchers that specialise in this field of study will also benefit from the results of this examination. The research's findings will be helpful for To improve environmental knowledge and raise awareness of the many benefits of organic food, educational institutions can strengthen their curricula by embracing the idea of organic food and farming. The results of this study may help the government formulate new regulations for organic food production.

Keywords: Organic food, Inorganic foods, Epigastric pain and Abdominal pain

INTRODUCTION

A increasing body of literature aims to describe individual dietary patterns, lifestyles, and motives in relation to the intake of organic foods, which is often described via answers to food frequency questionnaires [1–9]. Comparatively to other nutritional epidemiology subjects, there isn't much current study on how eating organic foods affects human health. Particularly, due to their high costs, long-term interventional research looking at potential associations between eating organic food and health are scarce. Prospective cohort studies are a practical way to investigate these correlations, albeit it can be difficult to assess compliance. Due to the lack of exposure biomarkers, the evaluation of exposure, or the intake of organic foods, will inevitably be relied on self-reported data that may be subject to measurement error.

The results [10–12] of clinical trials addressing the relationship between eating organic food and health have been gathered in some recent reviews. These studies are few in number and typically only last a short time, which limits their statistical power and their ability to detect long-term impacts. According to a summary of the evidence from clinical studies by Smith-Spangler et al. [20], there are generally no clinically significant differences between participants who consume organic food and controls who consume conventional food in terms of biomarkers related to health or nutritional status. The plant-based portion of the diets were produced in controlled field trials for the OrgTrace cross-over intervention study of 33 males, but 12 days of intervention did not reveal any effect of the production system on the overall intake or bioavailability of zinc and copper, or plasma status of carotenoids [13, 14].

The fact that customers who regularly purchase organic food tend to choose more vegetables, fruit, wholegrain goods, and less meat, and tend to have generally healthier eating habits, presents a particular problem in observational studies [15]. Every one of these dietary traits is linked to a lower risk of death from or occurrence of particular chronic diseases [16–22]. Additionally, consumers who consistently purchase organic food are more likely to be physically active and to not smoke [23]. Therefore, relationships between eating organic vs. conventional food and health outcomes must be thoroughly adjusted for variations in dietary quality and lifestyle characteristics, and the likelihood of residual confounding must be taken into account, depending on the result of interest. Numerous studies have found that families who prefer organic food had decreased rates of allergy and/or atopic disorder in their children [24-30]. However, the majority of these research show that eating organic food is related to other lifestyle characteristics and is part of a larger lifestyle. Therefore, the exclusive use of organic dairy products during pregnancy and during infancy was related with a 36% reduction in the risk of eczema at age 2 years in the Koala birth cohort of 2700 women and babies from the Netherlands [25]. A higher amount of ruminant fatty acids in breast milk was linked to a preference for organic foods in this cohort [26], which in turn was linked to a decreased odds ratio for parent-reported eczema up until age 2 years [31]. Women reporting frequent organic vegetable consumption during pregnancy showed a lower incidence of pre-eclampsia in the MOBA birth cohort study of 28,000 mothers and their offspring (OR = 0.79, 95 percent CI 0.62 to 0.99). Preeclampsia was not shown to be significantly correlated with the overall consumption of organic foods, or any of the other five food groups.

The NutriNet-Santé project, which enrolled 62,000 people, was the first prospective study to examine weight change over time in relation to the amount of organic food consumed. High consumers of organic food had smaller BMI increases over time than low consumers (mean difference expressed as a percentage of baseline BMI = 0.16, 95 percent Confidence Interval (CI): 0.32; 0.01). High consumers of organic food were shown to have a 31 percent (95 percent CI: 18 percent; 42 percent) lower risk of obesity than low consumers. To effectively account for confounders, two distinct methodologies were adopted [32].

The quantity of studies on chronic diseases is modest. In the Nutrinet-Santé trial, regular and occasional consumers of organic food showed lower rates of hypertension, type 2 diabetes, hypercholesterolemia, and cardiovascular disease (in men) compared to non-consumers [33], but more frequently reported a history of cancer. Reverse causality is inherent to cross-sectional studies; for instance, a cancer diagnosis by itself may result in beneficial dietary adjustments [34]. Only one adult prospective cohort study examined the connection between eating organic food and the risk of developing cancer. During a 9.3 year follow-up period, the link between eating organic food and the risk of cancer was evaluated among 623,080 middle-aged UK women. Through the use of a frequency question, participants indicated their use of organic food as either never, occasionally, or usually/always. Consuming organic food did not increase the risk of cancer overall, but participants who regularly ate organic food had a significantly lower risk of non-Hodgkin lymphoma than those who never did (RR = 0.79, 95 percent CI: 0.65; 0.96) [23].

In conclusion, epidemiological research on the relationship between eating organic food and health is still lacking. In order to achieve high statistical power, well-designed studies with a prospective design, lengthy duration, and adequate sample size are required. These must have thorough and precise information, particularly for exposure assessments involving dietary consumption and sources (i.e. conventional or organic).

METHODOLOGY

Problemofthestudy:

My research's primary objective is to examine and contrast consumers of organic and inorganic foods. Regarding specific physical issues, participants were taken who were male and female between the ages of 20 and 30 years, 30 and 40 years, and over 45 years old.

Objectives:

To study and compare male, female, age group of 20 to 30, 31 to 40 and 45 and above age group of organic food users and inorganic foods users with regards to stomach problem like epigastric pain on empty stomach or belching and abdominal pain after 2 to 2.5 hours of meal.

Hypothesis:

There will be no significant difference between organic food users andinorganic foods users like male, female, age group of 20 to 30, 31 to 40 and 45 and above age group of with regards to stomach problem like epigastric pain on empty stomach or belching and abdominal pain after 2 to 2.5 hours of meal.

Sample:

Total 360 consumers of organic and inorganic foods from various parts of Ahmedabad city were randomly chosen to participate in the current study. There are 146 women and 214 men in it. 132 of the 360 people in this sample were between the ages of 20 and 30; 143 were between the ages of 31 and 40; and 85 were between the ages of 45 and beyond.

Variables:

Sr. No.	Nameof Variable	Typeof variable	Levelof variable	Nameofvariable
1.	Typeofpeople	IV	2	 Organicfoodusers Inorganicfoodusers
2.	Gender	IV	2	 Male Female
3.	Age	IV	3	 20to30yearagegroup 31to40yearagegroup 45andaboveyearagegroup
4.	TypesofHealth Problem	DV	16	ScoresofVariousHealth Problem

Tool:

For the purpose of gathering information, self-structured questions were used to gather information on a variety of health issues, including epigastric pain on empty stomach or belching and abdominal pain. Allopathic, homoeopathic, and Ayurvedic specialists who validated the information provided by the questioner.

Procedure:

In the current study, a self-made questionnaire was used to collect data on a variety of health issues, including epigastric pain on empty stomach or belching and abdominal pain.

These inquiries were made of the sample for this study. I utilised an attitude test on shoppers of organic and inorganic items to identify who eats organic food. If a participant obtained a test score of at least 60, they were categorised as organic food consumers. This experiment involved a variety of locals who had bought organic goods from various nearby stores. The thesis includes surveys as an appendix. The way each subject's questions were answered determined how each subject was scored. Scoring frequency was identified in the area of numerous health issues, and the outcomes are calculated in a specific manner.

Statisticalanalysis:

Following data scoring, a frequency distribution was created for a number of independent variables. Chi-square was employed to test the hypothesis. SPSS was used for data analysis, and all hypotheses were evaluated at the 0.01 and 0.05 level.

RESULTS

Table1: Result showing frequency of maleorganic food and inorganic food user with regard stoepigastric pain on empty stomach or belching

timpty stomating						
	Organicfooduser	Inorganicfooduser	Total			
Yes	4	20	24			
No	85	105	190			
Total	89	125	214			
df=1,Tabulated	value:at0.05=3.84andat0.01level=6.	.64				
Chi-Square=6.9	1.significantat0.01level					

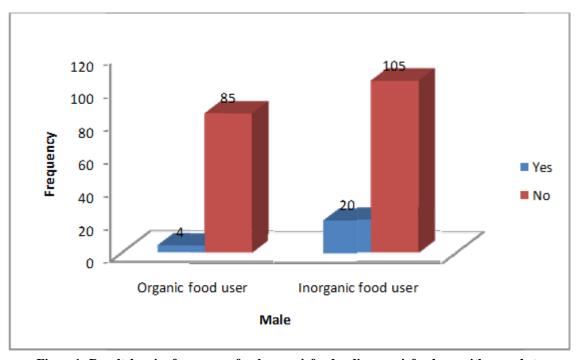
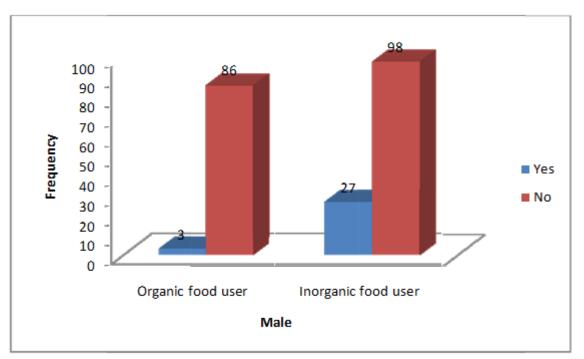


Figure1: Resultshowingfrequencyofmaleorganicfoodandinorganicfooduserwithregards to epigastricpainonemptystomachorbelching

According to Table 1, only 4 of the 89 male organic food consumers reported experiencing epigastric pain on an empty stomach or belching, whereas the remaining 85 consumers reported no such symptoms. Twenty male inorganic food consumers out of 125 male inorganic food consumers experienced epigastric pain on an empty stomach or belched, while 105 male inorganic food consumers reported no such pain. Chi-squared value in this case is 6.91. At the 0.01 level, it is significant. Therefore, the supposition that there will be no significant difference between male consumers of organic food and those of inorganic food in terms of belching or epigastric pain on an empty stomach is rejected. We can therefore conclude that there was a substantial difference between men who consumed organic foods and men who consumed inorganic foods in terms of belching or epigastric pain on an empty stomach. It demonstrates that when compared to male inorganic food consumers, male organic food consumers have less epigastric discomfort or burp.

 $Table 2: \\ Results howing frequency of male organic food and in organic food user with regard sto abdominal pain after 2 to 2.5 hours of meal$

mean						
	Organicfooduser	Inorganicfooduser	Total			
Yes	3	27	30			
No	86	98	184			
Total	89	125	214			
df=1,Tabulatedv	value:at0.05=3.84andat0.01level=6.	64				
Chi-Square=14.32,significantat0.01level						



 $Figeure 2: \\ Results howing frequency of male organic food and in organic food user with regards to abdominal pain after 2 to 2.5 hours of meal$

In accordance with Table 2, just three of the 89 male consumers of organic food reported experiencing abdominal pain between two and five hours after eating, while 86 of them reported no such discomfort. Out of 125 male inorganic food consumers, only 27 had abdominal pain 2 to 2.5 hours after eating, while the remaining 98 male inorganic food consumers reported no such discomfort. Here, the Chi-square value is 14.32. At the 0.01 level, it is significant. Therefore, the supposition that "Abdominal pain after 2 to 2.5 hours of meal will not significantly differ between male organic food users and male inorganic food users" is rejected. So, in terms of abdominal pain two to two and a half to three hours after a meal, there was a substantial difference between male consumers of organic food and male consumers of inorganic food. It shows that men who consume organic food experience less abdominal pain 2 to 2.5 hours after eating than men who consume inorganic food.

CONCLUSIONS

In comparison to male consumers of inorganic foods, male organic food consumers have reduced abdominal discomfort, heaviness in the abdomen, epigastric pain on an empty stomach or when belching, and abdominal pain 2 to 2.5 hours after a meal.

Compared to female male inorganic food consumers, female organic food consumers have reduced abdominal discomfort, heaviness in the abdomen, epigastric pain on an empty stomach or after belching, and abdominal pain 2 to 2.5 hours after a meal.

People in the 20 to 30 year age range who consume organic foods report less stomach pain than those in the same age group who consume inorganic foods. Because organic food users tend to be younger (20 to 30 years old), they have less physical health issues overall. The reason why people who consume organic food for 20 to 30 years are in better health than people who consume inorganic food for the same amount of time is that organic food contains more important amino acids, builds greater immune and disease resistance, and has fewer food allergy issues.

Regarding epigastric pain on an empty stomach or belching, there is no significant difference between 20 to 30 year old users of organic food and 20 to 30 year old consumers of inorganic food.

People aged 31 to 40 who consume organic foods experience reduced stomach pain. belly pain two to 2.5 hours after a meal, epigastric pain on an empty stomach, and more frequent in 31 to 40-year-olds who consume inorganic food. Because age groups of 31 to 40 years old who consume organic food have better dietary supplements of important minerals and amino acids with high antioxidant properties, these age groups have less physical issues than age groups of 31 to 40 years old who consume inorganic food.

People who consume organic food are less likely than people who consume inorganic food to experience epigastric discomfort on an empty stomach or belch, abdominal pain after two to 2.5 hours following a meal, or abdominal pain after age 45. Because those over the age of 45 who consume organic food benefit from increased energy, vitamin B12, vitamin D3, less allergenic substances, and improved immunity, these age groups experience less physical issues than those over the age of 45 who consume inorganic food.

REFERENCES

- 1. Oates L, Cohen M, Braun L. Characteristics and consumption patterns of Australian organic consumers. J Sci Food Agric. 2012;92(14):2782–7.
- 2. Baudry J, Mejean C, Alles B, Peneau S, Touvier M, Hercberg S, Lairon D, Galan P, Kesse-Guyot E. Contribution of organic food to the diet in a large sample of French adults (the NutriNet-Sante cohort study). Nutrients. 2015; 7(10):8615–32.
- 3. Baudry J, Touvier M, Alles B, Peneau S, Mejean C, Galan P, Hercberg S, Lairon D, Kesse-Guyot E. Typology of eaters based on conventional and organic food consumption: results from the NutriNet-Sante cohort study. Br J Nutr. 2016;116(4):700–9.
- Kesse-Guyot E, Peneau S, Mejean C, Szabo de Edelenyi F, Galan P, Hercberg S, Lairon D. Profiles of organic food consumers in a large sample of French adults: results from the Nutrinet-Sante cohort study. PLoS One. 2013;8(10): e76998
- 5. Eisinger-Watzl M, Wittig F, Heuer T, Hoffmann I. Customers purchasing organic food do they live healthier? Results of the German National Nutrition Survey II. Eur J Nutr Food Saf. 2015;5(1):59–71.
- 6. Hughner RS, McDonagh P, Prothero A, Shultz CJ, Stanton J. Who are organic food consumers? A compilation and review of why people purchase organic food. J ConsumBehav. 2007;6(2–3):94–110.
- 7. van de Vijver LP, van Vliet ME. Health effects of an organic diet-consumer experiences in the Netherlands. J Sci Food Agric. 2012;92(14):2923–7.
- 8. Brown E, Dury S, Holdsworth M. Motivations of consumers that use local, organic fruit and vegetable box schemes in Central England and southern France. Appetite. 2009;53(2):183–8.
- 9. Arvola A, Vassallo M, Dean M, Lampila P, Saba A, Lahteenmaki L, Shepherd R. Predicting intentions to purchase organic food: the role of affective and moral attitudes in the theory of planned behaviour. Appetite. 2008;50(2–3): 443–54.
- 10. . Dangour AD, Lock K, Hayter A, Aikenhead A, Allen E, Uauy R. Nutritionrelated health effects of organic foods: a systematic review. Am J Clin Nutr. 2010;92(1):203–10.
- 11. Smith-Spangler C, Brandeau ML, Hunter GE, Bavinger JC, Pearson M, Eschbach PJ, Sundaram V, Liu H, Schirmer P, Stave C, et al. Are organic foods safer or healthier than conventional alternatives?: a systematic review. Ann Intern Med. 2012;157(5):348–66.
- 12. Forman J, Silverstein J. Organic foods: health and environmental advantages and disadvantages. Pediatrics. 2012;130(5):e1406–15.
- 13. Mark AB, Poulsen MW, Andersen S, Andersen JM, Bak MJ, Ritz C, Holst JJ, Nielsen J, de Courten B, Dragsted LO, et al. Consumption of a diet low in advanced glycation end products for 4 weeks improves insulin sensitivity in overweight women. Diabetes Care. 2014;37(1):88–95.
- 14. . Soltoft M, Bysted A, Madsen KH, Mark AB, Bugel SG, Nielsen J, Knuthsen P. Effects of organic and conventional growth systems on the content of carotenoids in carrot roots, and on intake and plasma status of carotenoids in humans. J Sci Food Agric. 2011;91(4):767–75.
- 15. Torjusen H, Brantsaeter AL, Haugen M, Alexander J, Bakketeig LS, Lieblein G, Stigum H, Naes T, Swartz J, Holmboe-Ottesen G, et al. Reduced risk of preeclampsia with organic vegetable consumption: results from the prospective Norwegian mother and child cohort study. BMJ Open. 2014; 4(9):e006143.
- 16. Abete I, Romaguera D, Vieira AR, Lopez de Munain A, Norat T. Association between total, processed, red and white meat consumption and all-cause, CVD and IHD mortality: a meta-analysis of cohort studies. Br J Nutr. 2014; 112(5):762–75.
- 17. Boeing H, Bechthold A, Bub A, Ellinger S, Haller D, Kroke A, Leschik-Bonnet E, Muller MJ, Oberritter H, Schulze M, et al. Critical review: vegetables and fruit in the prevention of chronic diseases. Eur J Nutr. 2012;51(6):637–63.
- 18. Larsson SC, Orsini N. Red meat and processed meat consumption and allcause mortality: a meta-analysis. Am J Epidemiol. 2014;179(3):282–9.
- 19. Li F, Hou LN, Chen W, Chen PL, Lei CY, Wei Q, Tan WL, Zheng SB. Associations of dietary patterns with the risk of all-cause, CVD and stroke mortality: a meta-analysis of prospective cohort studies. Br J Nutr. 2015; 113(1):16–24.
- 20. Schwingshackl L, Hoffmann G. Diet quality as assessed by the healthy eating index, the alternate healthy eating index, the dietary approaches to stop hypertension score, and health outcomes: a systematic review and meta-analysis of cohort studies. J AcadNutr Diet. 2015;115(5):780–800.e785.

- 21. Wang X, Ouyang Y, Liu J, Zhu M, Zhao G, Bao W, Hu FB. Fruit and vegetable consumption and mortality from all causes, cardiovascular disease, and cancer: systematic review and dose-response meta-analysis of prospective cohort studies. BMJ. 2014;349:g4490.
- 22. Zong G, Gao A, Hu FB, Sun Q. Whole grain intake and mortality from all causes, cardiovascular disease, and cancer: a meta-analysis of prospective cohort studies. Circulation. 2016;133(24):2370–80.
- 23. Bradbury KE, Balkwill A, Spencer EA, Roddam AW, Reeves GK, Green J, Key TJ, Beral V, Pirie K. The million women study C: organic food consumption and the incidence of cancer in a large prospective study of women in the United Kingdom. Br J Cancer. 2014;110(9):2321–6.
- 24. Alfven T, Braun-Fahrlander C, Brunekreef B, von Mutius E, Riedler J, Scheynius A, van Hage M, Wickman M, Benz MR, Budde J, et al. Allergic diseases and atopic sensitization in children related to farming and anthroposophic lifestyle—the PARSIFAL study. Allergy. 2006;61(4):414–21.
- 25. Kummeling I, Thijs C, Huber M, van de Vijver LP, Snijders BE, Penders J, Stelma F, van Ree R, van den Brandt PA, Dagnelie PC. Consumption of organic foods and risk of atopic disease during the first 2 years of life in the Netherlands. Br J Nutr. 2008;99(3):598–605.
- 26. Rist L, Mueller A, Barthel C, Snijders B, Jansen M, Simoes-Wust AP, Huber M, Kummeling I, von Mandach U, Steinhart H, et al. Influence of organic diet on the amount of conjugated linoleic acids in breast milk of lactating women in the Netherlands. Br J Nutr. 2007;97(4):735–43.
- 27. Stenius F, Swartz J, Lilja G, Borres M, Bottai M, Pershagen G, Scheynius A, Alm J. Lifestyle factors and sensitization in children the ALADDIN birth cohort. Allergy. 2011;66(10):1330–8.
- 28. Fagerstedt S, Hesla HM, Ekhager E, Rosenlund H, Mie A, Benson L, Scheynius A, Alm J. Anthroposophic lifestyle is associated with a lower incidence of food allergen sensitization in early childhood. J Allergy Clin Immunol. 2016; 137(4):1253–1256.e1251.
- 29. Alm JS, Swartz J, Lilja G, Scheynius A, Pershagen G. Atopy in children of families with an anthroposophic lifestyle. Lancet. 1999;353(9163): 1485–8.
- 30. Floistrup H, Swartz J, Bergstrom A, Alm JS, Scheynius A, van Hage M, Waser M, Braun-Fahrlander C, Schram-Bijkerk D, Huber M, et al. Allergic disease and sensitization in Steiner school children. J Allergy Clin Immunol. 2006; 117(1):59–66.
- 31. Thijs C, Muller A, Rist L, Kummeling I, Snijders BE, Huber M, van Ree R, Simoes-Wust AP, Dagnelie PC, van den Brandt PA. Fatty acids in breast milk and development of atopic eczema and allergic sensitisation in infancy. Allergy. 2011;66(1):58–67.
- 32. Kesse-Guyot E, Baudry J, Assmann KE, Galan P, Hercberg S, Lairon D. Prospective association between consumption frequency of organic food and body weight change, risk of overweight or obesity: results from the NutriNet-Santé study. Br J Nutr. 2017;117(2):325–34.
- 33. Baudry J, Mejean C, Peneau S, Galan P, Hercberg S, Lairon D, Kesse-Guyot E. Health and dietary traits of organic food consumers: results from the NutriNet-Sante study. Br J Nutr. 2015;114(12):2064–73.
- **34.** Alfano CM, Day JM, Katz ML, Herndon JE 2nd, Bittoni MA, Oliveri JM, Donohue K, Paskett ED. Exercise and dietary change after diagnosis and cancer-related symptoms in long-term survivors of breast cancer: CALGB 79804. Psycho-Oncology. 2009;18(2):128–33.