

# THE EFFECTS OF MEAT CONSUMPTION ON HUMAN HEALTH

Mr. Rahul Bhalekar

Assistant Professor  
AISSMS CHMCT, PUNE

## **ABSTRACT**

*This study explores the complex relationships between eating meat and human health, taking into account societal, environmental, and dietary factors. The historical development of meat eating patterns and its importance in human diets are examined first. The nutritional makeup of meat, its correlation with different health outcomes, and the moral and environmental consequences of meat production are all critically examined in the following sections. The study provides a comprehensive perspective of this difficult subject by highlighting contradictory findings about the health impacts of meat eating from a variety of sources. Alternative diets and culinary innovations being investigated as possible remedies to lessen the negative impacts of eating beef. Moreover, the consequences for the hospitality sector are examined, stressing the significance of integrating health-aware practices into food service offers. The study's descriptive methodology collects data through the use of questionnaires and observational methods, which are then complemented by the sources found in academic journals and research papers. All things considered, this work advances our awareness of the effects that eating meat has on human health and provides guidance for making wise dietary decisions for oneself as well as for those in the hospitality industry.*

**Keywords:** *Meat consumption, human health, hospitality industry, nutritional composition, environmental impact, culinary innovations, dietary alternatives, longevity, evolution, balanced diet.*

## **INTRODUCTION**

Dietary practices and their effects on human health have drawn a lot of attention in the last few decades from a variety of fields, including public health, nutrition, and medicine. Of all the nutritional options available, eating meat is still a contentious issue because of its significant effects on personal health and public health. Understanding the complex relationship between meat consumption and human health is crucial for aspiring hotel managers because of the industry's relevance and the rising demand from visitors for a variety of dietary options.

The goal of this study project is to provide a thorough examination of the physiological, environmental, and socio-economic aspects of the complex consequences of meat intake on human health. This study intends to clarify the complex relationships between meat consumption and different health outcomes through meticulous investigation and critical analysis of the body of existing literature. As a result, it will provide hotel management students with important knowledge that will help them make decisions in the field.

### **The Evolution of Meat Consumption Patterns:**

It is essential to understand the historical development of meat consumption in order to understand the current state of the industry and its consequences. Meat has been an integral part of the diet of humans since the dawn of human civilization. It provides energy, critical nutrients, and protein. However, over time, a variety of factors, including socioeconomic development, technical breakthroughs, and cultural norms, have influenced the patterns of meat intake.

### **Nutritional Considerations and Health Impacts:**

Meat's nutritional composition, which includes a high protein content and a multitude of vital micronutrients, has long been praised for its ability to promote human health. However, overindulging in some meat varieties—especially red and processed meats—has been connected to a number of harmful health consequences, such as cancer, metabolic diseases, and cardiovascular illnesses. This chapter will assess the scientific data about meat consumption and its effects on health, highlighting both the advantages and disadvantages of including meat in a diet.

### **Environmental and Ethical Dimensions:**

In addition to having detrimental consequences on human health, the production and consumption of meat have a significant negative impact on the environment. They cause deforestation, greenhouse gas emissions, and biodiversity loss. Moreover, there have been requests to reassess social attitudes regarding meat eating due to ethical concerns about sustainability and animal welfare. This chapter will examine the ethical and environmental implications of eating beef, emphasizing how dietary decisions are linked to more general ecological and ethical issues.

This research project aims to provide a nuanced understanding of the impacts of meat intake on human health among students studying hotel management by a comprehensive assessment of these interconnected elements. This study aims to assist aspiring hospitality professionals to negotiate the intricacies of dietary choices and advance health-conscious practices in the sector by providing them with thorough knowledge and critical thinking abilities.

This introduction establishes the framework for a thorough investigation into the impact of meat intake on human health by bringing together historical viewpoints, scientific data, and ethical considerations. Interacting with this research issue as students of hotel management not only improves our comprehension of nutritional dynamics but also provides us with important insights to handle the changing demands and tastes of customers in the hospitality industry.

### **Culinary Innovations and Alternative Options:**

Growing concerns about the effects of eating meat on one's health and the environment have led to a proliferation of creative plant-based substitutes in the culinary world. These new trends, which range from lab-grown meats to plant-based burgers, show a movement towards more ethically and sustainably produced food. This chapter will investigate the new culinary creations and substitutes that consumers can choose from, looking at their taste profiles, nutritional profiles, and viability in the market. It will also look into how the hospitality sector can support and encourage these substitutes, meeting the varied dietary needs of visitors and reducing the negative consequences of traditional meat consumption.

### **Implications for the Hospitality Industry:**

Hotel management experts have a significant influence on the food options and dining experiences offered by hospitality companies since they are stewards of the client experience. It is crucial to comprehend the impact of meat intake on human health not only to guarantee visitor delight but also to advance sustainability initiatives and overall well-being. In order to satisfy the changing expectations of guests, this last chapter will examine the implications of the research findings for the hospitality sector and offer helpful suggestions for including menu alternatives that are health-conscious, encouraging food transparency, and utilising culinary innovation. Hotel management professionals can establish themselves as industry leaders in promoting health, sustainability, and ethical dining practices by taking a proactive stance in addressing the effects of meat consumption.

### **OBJECTIVES**

1. To study the nutritional composition of different types of meat.
2. To investigate impact of meat consumption on human health.
3. To evaluate the potential benefits of reducing meat consumption on human health.

4. To understand cultural and societal factors influencing meat consumption.
5. To identify alternative sources to compensate the nutritional requirements fulfilled by consumption of meat.

### **LITERATURE REVIEW**

1. A group of academics from the University of Adelaide investigated if eating meat is genuinely unhealthy, as some studies and surveys indicated. Despite factors such as calorie intake, affluence, living in a city, and obesity that are associated with it, consuming meat is associated with a higher life expectancy, according to facts and statistics analyzed from over 170 nations. They discovered that over millions of years, eating meat has been essential to human health and survival. They found that obtaining energy from crops high in carbohydrates, such as grains and tubers, does not always result in a longer lifespan. Thus, the survey's ultimate result implies that meat may not be as unhealthy as some people believe and that the idea that people who consume meat will always have health problems is unfounded.

2. Meat consumption has increased dramatically since the 1960s, especially in the 1980s, raising serious issues for the environment and human health. Although meat is an essential source of nutrients, overindulging in it has resulted in harmful effects such as increased greenhouse gas emissions, water pollution, and health risks such as cancer. Red and processed meats are categorized as carcinogenic by the International Agency for Research on Cancer (IARC), which advises caution. Consuming wild meat also increases the risk of viral illnesses. Research confirms that cutting back on meat consumption—especially red and wild meats—is vital to prevent environmental harm and preserve human health. Accepting dietary shifts towards less meat consumption becomes apparent as a critical measure in halting climate change and advancing general health.

3. The FAPAB Research Centre, University of Adelaide, and lead author Dr. Wenpeng You stressed the importance of life expectancy as a population mortality indicator. They emphasized that, whereas hereditary factors account for 20–30% of life expectancy, environmental factors account for 70–80% of it. Their study concentrated on life expectancy at age five, which leaves out early childhood mortality that is significantly impacted by environmental factors such as infection prevention and hygiene. The group discussed the long-running controversy over the health impacts of eating meat, pointing out that although there has been controversy surrounding the associations, vegetarianism and veganism have benefited from them. They also talked about how these food choices have occasionally been criticized as trendy Western lifestyles and linked to privilege. Even after accounting for variables including calorie intake, wealth, urbanization, and obesity, their study—which was based on UN data from 175 countries—showed a positive association between meat consumption and life expectancy, contrary to earlier research that suggested vegetarians had longer life expectancies.

4. A recent study that has been making headlines suggests that eating meat makes people live longer, but a deeper look at the data suggests that this claim is false. Although there is an association between eating meat and life expectancy in 175 nations, the study's findings do not support the authors' conclusion. Rather, it just illustrates the fact that people in more affluent countries typically live longer because they have access to better diet and healthcare. Crucially, the authors of the study agree that fortified supplements, dairy products, almonds, and beans are good sources of the nutrients found in meat; this implies that well-planned diets that exclude meat can still provide adequate amounts of nutrients for vegetarians and vegans. In addition, the study's data interpretation has drawn harsh criticism, with some speculating that it's a propagandistic effort to encourage the eating of meat. Despite what the report says, a number of studies support the health benefits of plant-based diets, demonstrating that choosing a nutritionally complete diet free of animal products is frequently the best course of action. Essentially, this is not a serious scientific investigation; rather, it is a piece of debunking material with little credibility.

5. The study explores the evolution of human meat consumption, with a focus on the Paleolithic period, when hunting prowess and meat intake steadily rose. Based on available data, it is believed that hominines went extinct more than 2 million years ago, and there are even older indications of meat preparation in Eastern Africa. In order to comprehend the land usage, foraging techniques, and cognitive capacities of hunter-gatherers in the past, the authors examine the energy costs and benefits related to obtaining and consuming meat and fat. They talk about the Optimal Foraging Theory, which contends that resources are selected for their caloric efficiency, but they also raise concerns about the possibility that prey selection is influenced by other variables, such as obtaining non-

food items or satisfying symbolic requirements. In addition to reviewing evidence from energetics and anthropological records, the study offers examples of different-sized creatures that Paleolithic hominines frequently preyed upon, including reindeer and elephants. In the end, the authors argue for a more nuanced understanding of meat eating in human evolution and attempt to refute the straight application of behavioral ecology data to archaeology.

6. Václav Smil emphasises in his paper the biological component of human nutrition, stressing that people are omnivores by nature rather than herbivores. He points out that our genetic make-up predisposes us to eat both plant and animal meals, drawing on evolutionary biology. Smil draws attention to the actions of chimpanzees, which are the closest relatives of humans who actively hunt and eat meat. He draws a distinction between this biological fact and predictions of a coming vegan movement, contending that the former ignores the deep-rooted biological predilection for meat consumption. Data from the UN Food and Agriculture Organization, which demonstrate a steady rise in the world's output of meat and poultry during the previous 50 years, are used by him to support his claims. Slim contends that rising income is the primary cause of this tendency since wealthier people can afford the meals they want more easily. In general, he disputes the idea that diets are becoming increasingly plant-based, arguing that eating meat is still an essential part of what people eat. The biological foundation of human omnivorous eating habits is emphasized in the essay, with a focus on the important roles played by genetic and evolutionary causes. It makes comparisons between humans and chimpanzees, our nearest ancestors who are also primates and who eat meat. The author argues that eating meat is still engrained in human behavior, refuting claims that veganism is becoming widely accepted. The substantial rise in worldwide meat and poultry output over the past 50 years, mostly due to increased income, is demonstrated with data from the United Nations Food and Agriculture Organization. Although there are variances in meat consumption because of things like religion, money, and changing preferences, general trends indicate that the amount of meat consumed per person has increased significantly in many highly populated nations. Despite this increase, nations with high meat consumption levels do not appear to be experiencing any discernible health risks. The article's conclusion uses Spain as an example, where a rise in meat intake has been linked to a drop in cardiovascular disease fatalities and an extended life expectancy. Overall, the author contends that eating meat is still a major component of diets around the world and is firmly embedded in human behavior.

7. Researchers from Oxford University looked beyond the well-known connection between red and processed meat and colon cancer in their 2021 study to examine the potential health effects of frequent meat eating. The study, which was published in BMC Medicine, examined over 475,000 middle-aged British people's medical data over the course of eight years to look for possible links between eating meat and a number of non-cancerous medical disorders that might require hospitalization in the country. The results showed some alarming patterns: people who ate chicken, red meat, and processed meat three or more times a week had a higher chance of developing nine distinct diseases. A noteworthy finding was the correlation between meat intake and heart disease. Eating red and processed meat on a regular basis was associated with a 15% increased risk of heart disease because saturated fatty acids raise levels of "bad" cholesterol. Furthermore, eating red and processed meat on a daily basis was linked to a 30% greater risk of diabetes, but eating poultry was linked to a 14% increased risk. Consuming poultry was also associated with a 17% increased risk of gastritis and gastro-esophageal reflux illness. It's interesting to note that the study discovered that people who ate meat were more likely to be overweight or obese, and that a large percentage of the higher health risks linked to meat eating could be explained by variations in BMI. Experts stress the significance of a balanced diet that includes meat in moderation, even though this study raises questions about the health hazards associated with frequent meat consumption. Red and processed meat consumption should be limited to 70g per day, according to Public Health England. Experts also suggest restricting foods high in saturated fat, salt, and sugar in favor of a varied diet high in whole grains, fruits, and vegetables. The subjective nature of eating frequency questionnaires and the paucity of information on meat preparation techniques are two of the study's shortcomings, though. Furthermore, the study's application to other groups with different health, lifestyle, and genetic features was limited because it largely focused on middle-aged white adults in the UK. When contemplating a decrease in meat intake for possible health advantages, it is recommended to include plant-based sources of vital minerals such as iron, zinc, and vitamin B12.

8. The article talks about the evolutionary change in the human diet towards a diet high in meat and bone marrow, which happened at least 2.6 million years ago. Early hominines consumed a wide range of foods, including fruit, leaves, insects, and meat, just like contemporary chimps do. But by 2.6 million years ago, some hominines' diets had significantly expanded to include meat and bone marrow from both small and large animals. The existence of butchery markings on fossilized bones, which show that bones were sliced and pounded to remove meat and marrow, is the main source of evidence for this nutritional transition. The emergence of archaeologically evident accumulations of stone tools at the Gona site in Ethiopia some 2.6 million years ago is the earliest well-accepted

evidence for this behavior. Additional data points to the deliberate specialization of tasks like animal butchering and stone tool production, as well as the introduction of aquatic foods like fish, turtles, and crocodiles into the diet some

1.95 million years ago. All things considered, the article sheds light on the evolutionary changes in human feeding behaviour by elucidating the date, location, and implications of early hominine carnivores.

9. David M. Klurfeld's article highlights the importance of meat in a balanced diet. Klurfeld states that red meat is a high-nutrient diet that includes important elements including protein, vital amino acids, vitamins (such as vitamin A), and minerals (like iron and zinc). Throughout the world, a lot of diets frequently lack these minerals. Klurfeld disputes assertions from the World Health Organization (WHO) that red meat most likely causes cancer and that eating processed meat promotes colon cancer. He contends that the observational evidence in favor of these assertions is flimsy and obscured by a number of unmeasured variables. Additionally, he points out that the WHO's decision did not take into account the fact that intervention trials examining low-fat, low-meat diets failed to reveal a substantial advantage on cancer. According to Klurfeld, there may be other factors influencing the correlation between red meat consumption and colon cancer, such as higher levels of overweight, less exercise, a lower intake of vegetables or dietary fiber, and other lifestyle habits among meat-eaters, or epidemiology may not be able to detect such a small risk. Overall, based on observational data, the paper refutes claims that meat consumption is associated with cancer and emphasizes the nutritional importance of meat in a balanced diet.

10. The nutritional advantages of eating animal products—which are a part of one of the six major dietary groups—are covered by Dennison in this article. He highlights the abundance of vital nutrients, minerals, and vitamins found in game, fish, poultry, hog, and red meat that are needed to sustain general health. In spite of the current public debate over the health risks associated with regular meat consumption—especially red meat—Dennison provides accurate facts to set the record straight. Dennison draws attention to the high mineral content of beef, citing the need of magnesium, zinc, and iron for immune system function, muscle growth, bone strength, and oxygen transfer in the body. He emphasizes how vital meat's protein is for sustaining healthy blood, bones, skin, and hair as well as for constructing and mending muscle. Dennison further notes that meat is high in vitamins, including several B vitamins and vitamin E, which support energy metabolism, antioxidant defence and neuron function. Additionally, Dennison talks on the advantages of Omega-3 fatty acids, which are important unsaturated fats that are included in meats, particularly fish. It is well recognized that these fats lower blood pressure, cholesterol, and the risk of cardiovascular illnesses. Overall, the article dispels myths about meat and highlights its nutritional worth while offering evidence-based facts in favor of including it in a balanced and healthful diet.

11. Hilaya Aliouche, B.Sc., and Emily Henderson, B.Sc., contributed to this paper on the nutritional value of meat, especially red meat, in promoting a healthy diet. Although meat consumption is frequently associated with unfavorable health results, Aliouche highlights that a moderate amount of meat, when included in a varied and balanced diet, can lead to positive health effects. Red meat is emphasized by Aliouche as a substantial source of protein and important minerals, including iron and B complex vitamins. She emphasizes the significance of heme iron, which is present in red meat and is easier for the body to absorb than non-heme iron, which is present in plant-based diets. For cognitive growth and function, especially in children and young people, this type of iron is essential. In addition, Aliouche talks about how red meat serves as the main source of vitamin B12, which is crucial for maintaining neurological health and preventing megaloblastic anemia. She points out that important elements like zinc, selenium, and phosphorus found in red meat are also beneficial for immune system function, bone health, and cell growth. Furthermore, substantial levels of niacin, vitamin B6, iron, and riboflavin are present in red meat, which enhances general health and wellness. Aliouche dispels the myth regarding the consumption of red meat's saturated fat by providing data in favor of including lean red meat in diets to promote cardiovascular health. Overall, the article emphasizes the need of including red meat in a balanced diet because it is a valuable source of important vitamins and minerals.

12. Laura A. Wyness wrote a report in December 2015 outlining the significance of red meat in the human diet during the course of evolution. Because it contains high biological value protein and other elements, red meat has long been a mainstay of human nutrition. Red meat provides essential nutrients that may be more easily absorbed by the body when included in a varied and well-balanced diet than when consumed alone. The importance of red meat in the diets of several population groups—including young children, teenagers, women who are pregnant, and older adults—is examined in this research. It highlights the particular nutrients found in red meat, which are frequently lacking in the diets of these populations. The study also explores the function of red meat in increasing fullness and supporting weight management. Lean red meat consumption as part of a balanced diet may help with weight loss, especially if the diet is low in energy. Additionally, the document summarizes the dietary guidelines for red meat consumption in the United Kingdom. It emphasizes how crucial it is to consume red meat in moderation

and in balance as part of a varied and healthful diet. The study emphasizes red meat's nutritional advantages as well as its capacity to improve general health and wellbeing at various phases of life.

13. To determine whether consuming raw red meat could have any negative health impacts, a meta-analysis and systematic review were carried out. There was no correlation seen with either hemorrhagic or ischemic stroke, although there was little evidence of a connection with colorectal cancer, breast cancer, type 2 diabetes, and ischemic heart disease. The cumulative risk of these events was reduced to zero intake, however there was a large range of uncertainty (0-200 g/day). Overall, the data point to a potential connection between raw red meat and an increased risk of disease, but more thorough study is required before any firm recommendations can be made.

14. Red meat, which has always been a staple of human diets, provides valuable nutrients and high-quality protein when consumed in moderation. But this research also looks at its role in preserving bone health, skeletal muscle, and during pregnancy, as well as its implications in chronic disorders like dementia, cancer, cardiovascular diseases, and iron-deficiency anemia. Although lean red meat may be advantageous under some circumstances, new research links processed red meat to higher risks of dementia, cancer, and cardiovascular disease (CVD), in contrast to the neutral or lower risk linked to white meat. This emphasizes the necessity of having distinct dietary guidelines for the use of processed and unprocessed beef.

15. In order to better understand the dietary practices, attitudes, and knowledge of 197 pre-service primary teachers from urban and smaller city contexts in Portugal, a study was conducted to find out how much meat they consumed and how it affected their health, the environment, and animal welfare. Participants recognized the negative implications of an omnivorous diet on the environment and animal welfare, even though they supported it for human health. Even while many acknowledged the health benefits of eating meat, many were willing to cut back on their intake. Some, however, found it difficult to defend their answers, which suggests a lack of understanding and has consequences for teacher preparation programs.

### **RESEARCH METHODOLOGY**

- The research utilized a descriptive research design to explore "**The Effects of Meat Consumption on Human Health.**"

#### **- Primary data:**

- Conducting a survey using a structured questionnaire through Google form and distributed online to Final Year students of Bachelor of Science in Hospitality Studies at All India Shri Shivaji Memorial Society's College of Hotel Management and Catering Technology, faculty members, housewives, working professionals, business individuals, and professionals from the hotel industry.

- The survey sample consisted of 152 respondents from diverse backgrounds

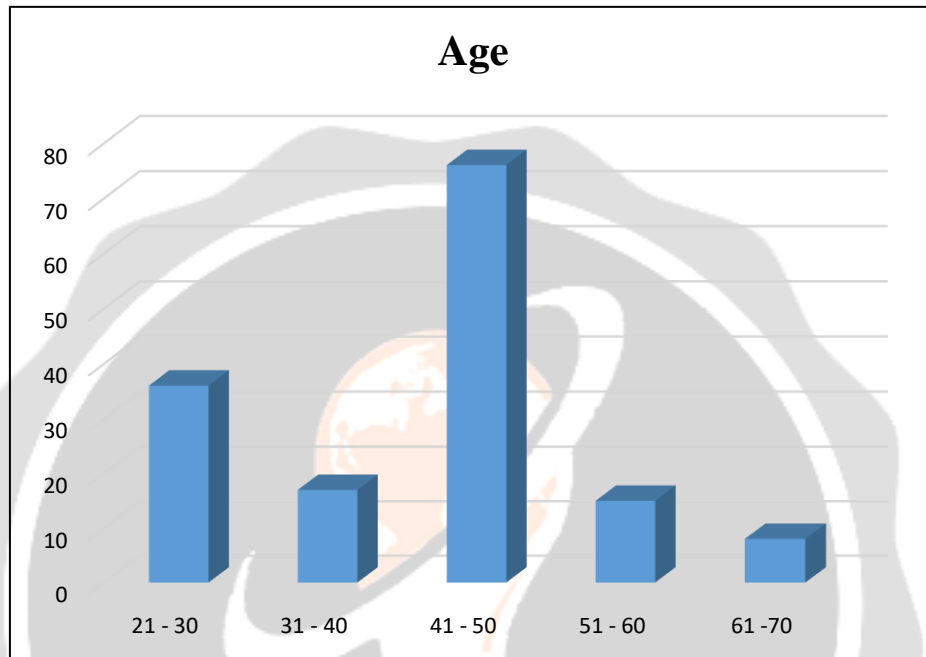
#### **- Secondary data:**

Scholarly articles, Research papers, Google Scholar, Wikipedia, and other online platforms, to supplement the study's findings and provide context within existing literature on the subject matter.

**DATA ANALYSIS & DATA INTERPRETATION**

The given Questionnaire is about “The Effects of Meat Consumption on Human Health”, filled by 152 people. Their responses are analyzed accordingly and systematically order wise with their comments and are as follows:

1.



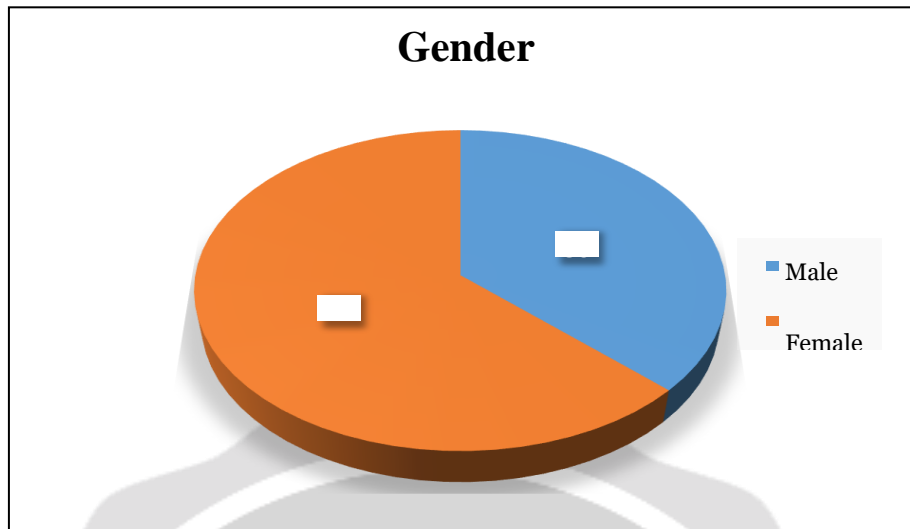
**Observation:**

- a) The majority of the people are from the age group 41-50 that is 76 (count).
- b) Followed by are from the age group 21-30 that is 36 (count).
- c) The minority are from the age group 61-70 that is 8 (count).

**Interpretation:**

It has been interpreted that more than half of the responses are from the age group 41-50, while the responses from the other age groups are at minority.

2.



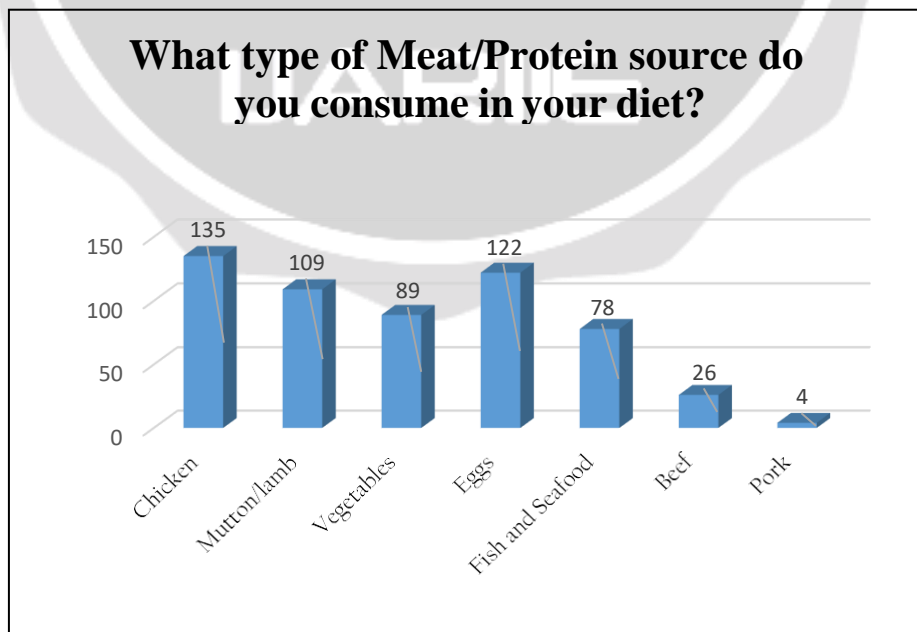
**Observation:**

- a) The maximum responses gathered are from females that is 96 (count).
- b) The remaining responses are from males 56 (count).

**Interpretation:**

The interpretation is that more than half the responses are generated from females as compared to males.

3.





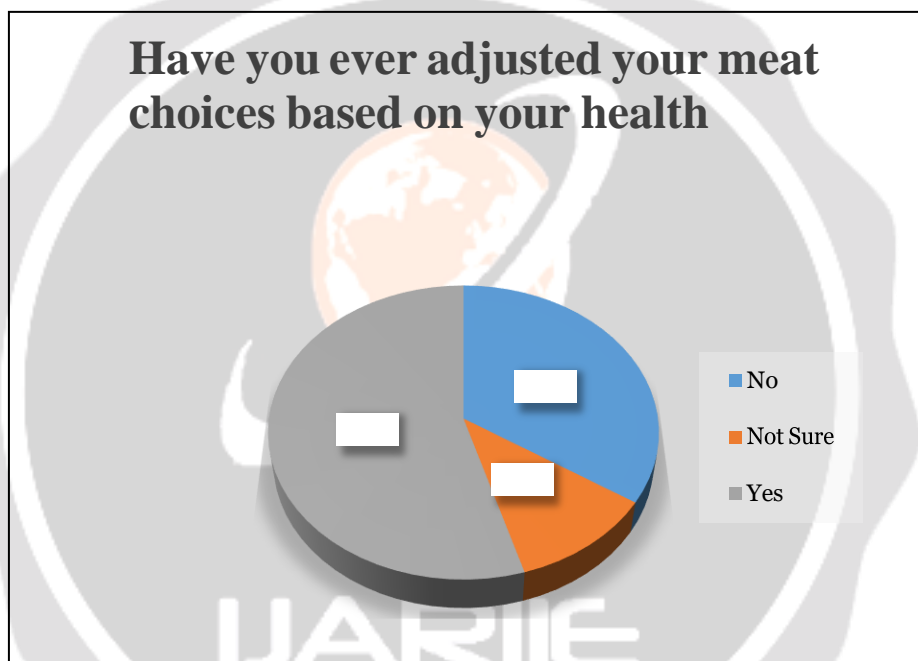
**Observation:**

- a) The majority of the people consume chicken as one of the important source of protein in their diet.
- b) Followed by eggs, mutton/lamb and vegetables in their diet as well.
- c) As a minority, pork is one of the least favorite choice for including in their diet.

**Interpretation:**

It has been interpreted that most of the people consume chicken, eggs and mutton/lamb in their diet regularly along with other protein sources as well.

4.



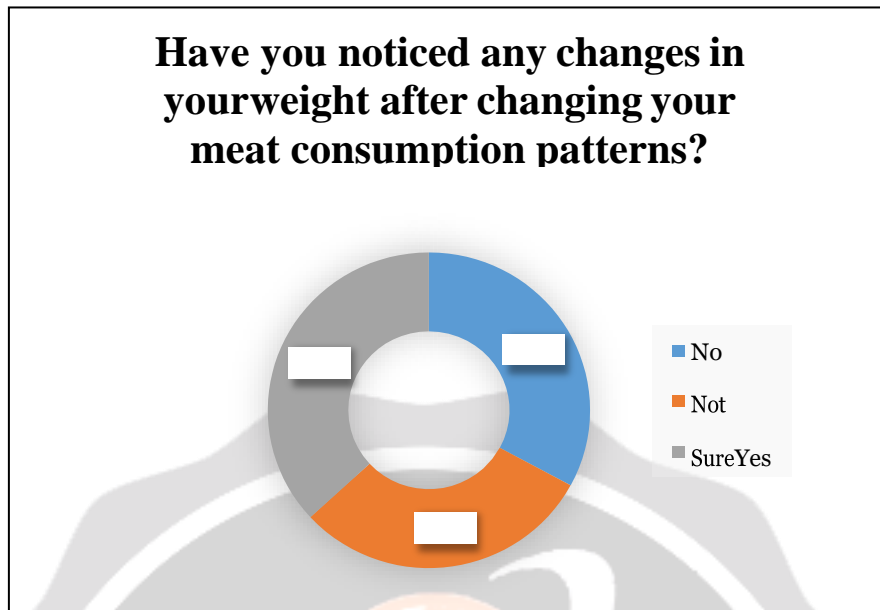
**Observation:**

- a) The majority of the people have adjusted their meat choices based on their health level that is 55%.
- b) While the other 34% have not adjusted their meat choices.
- c) The remaining 11% people are not sure.

**Interpretation:**

The interpretation is that more than half of the people through their responses have adjusted their meat choice based on their health level while others are ignorant or simply do not care about their choices.

5.



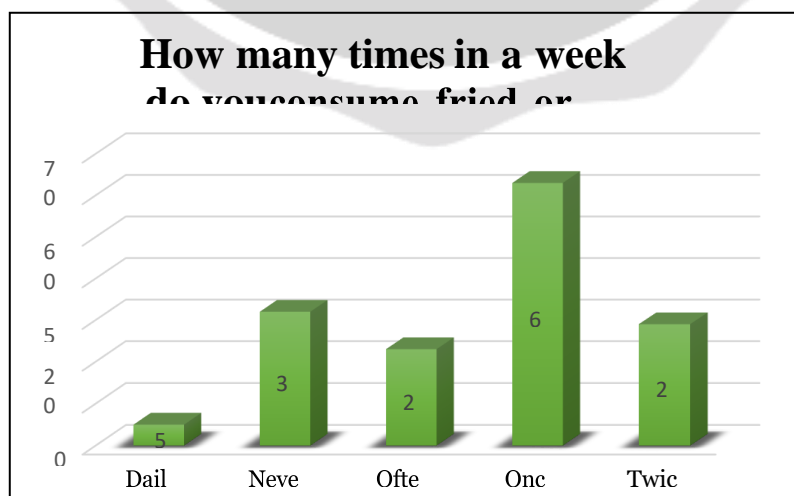
**Observation:**

- a) The majority of the people have noticed changes in their weight after changing their meat consumption patterns that is 37%.
- b) The other 33% have not noticed any changes in their weight.
- c) The remaining 30% are not sure about the changes in their weight.

**Interpretation:**

It has been interpreted that there are changes in weight after meat consumption patterns in many of the responses while the others couldn't notice any changes in their weight or are not sure about it.

6.



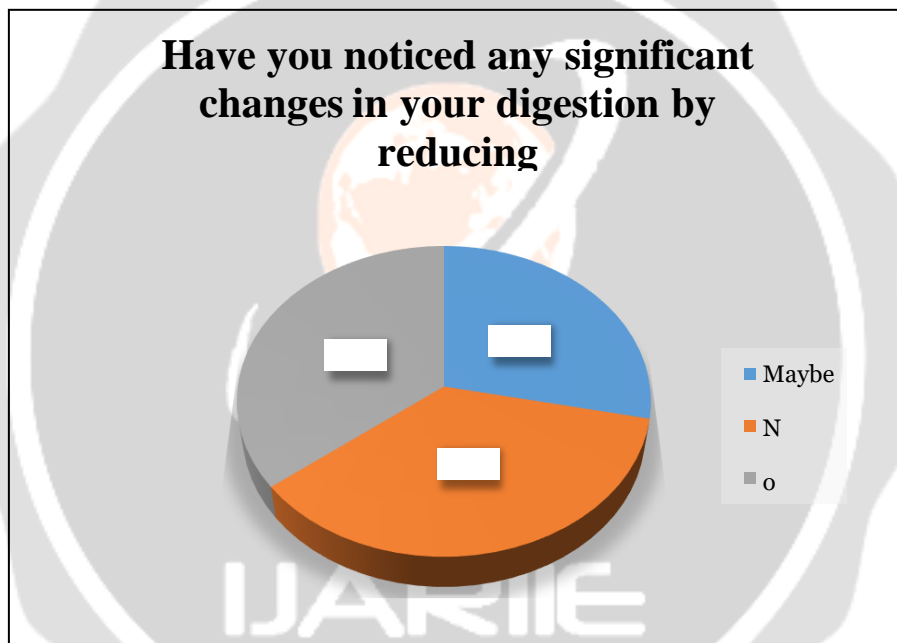
**Observation:**

- a) The majority of the responses where people consume fried/ processed meats once a week that is 63 (count).
- b) The other responses where people consuming fried/ processed meats twice, often are 29 (count), 23 (count) respectively.
- c) While 32 responses tend to never consume fried/processed meats.

**Interpretation:**

The data conveys that more than half of the responses prefer to consume fried/processed foods once a week and are health conscious while there are a few responses that they agree on consuming it on daily basis which is not so good for their health and could lead to serious health problems in the future.

7.



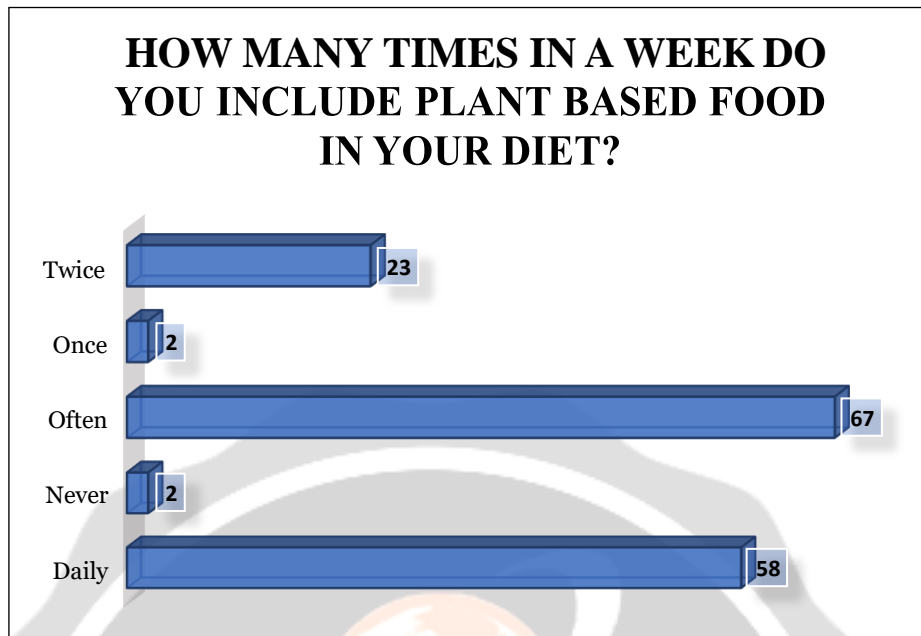
**Observation:**

- a) The responses have tied where 36% have noticed significant changes in their digestion by reducing their meat consumption.
- b) And the other 36% have not noticed any significant changes in their digestion.
- c) The remaining 28% people are not sure.

**Interpretation:**

The interpretation made from this graph is that most of the responses that is 55 (count) have seen significant changes in their digestion by reducing meat consumption while the other 55 responses have not, and the remaining are clueless about the subject.

8.



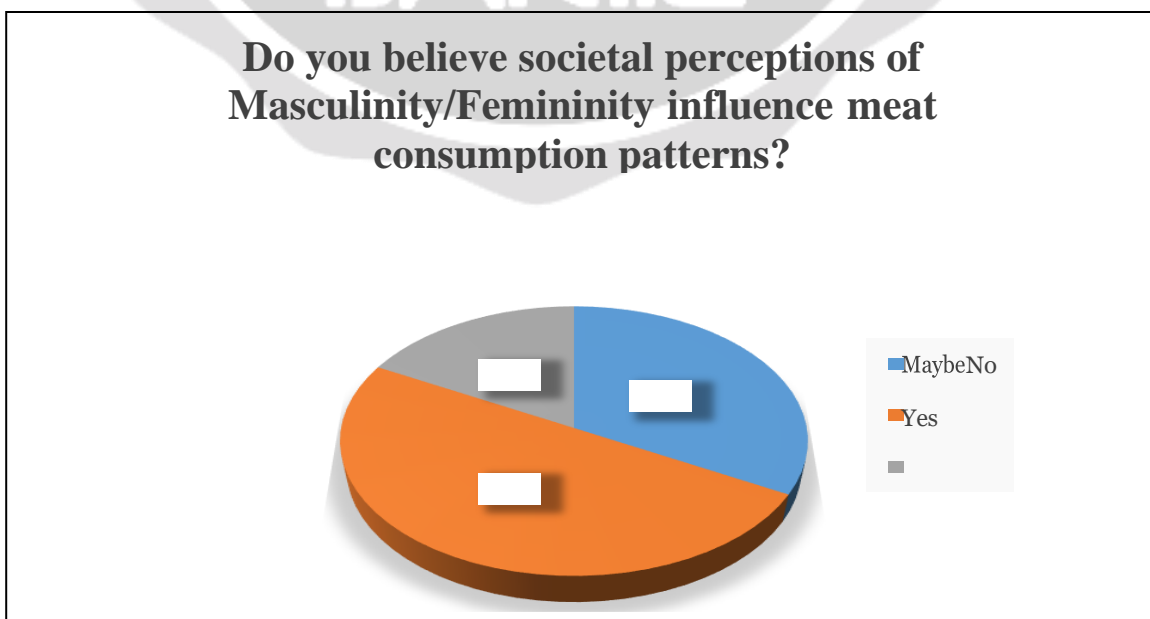
**Observation:**

- a) The majority of the responses include plant based foods in their diet often i.e. 67(count).
- b) Followed by daily consumption of plant based foods that is 58 (count).
- c) While the remaining 23 responses include plant based foods twice a week.

**Interpretation:**

It has been interpreted that almost everybody from the responses have a decent balanced diet where along with the meat consumption, plant based foods are included as well in their diet.

9.



**Observation:**

- a) The majority of the responses disagree to believe in societal perceptions of masculinity/ femininity influence meat consumption patterns that is 50%.
- b) The other 17% does believe in it.
- c) While the remaining 33% people are not sure.

**Interpretation:**

It has been interpreted that half of the responses do not believe societal perceptions of Masculinity/Femininity influence meat consumption patterns followed by the people who think this is true but are not sure, while the remaining agree to this perception.

10.



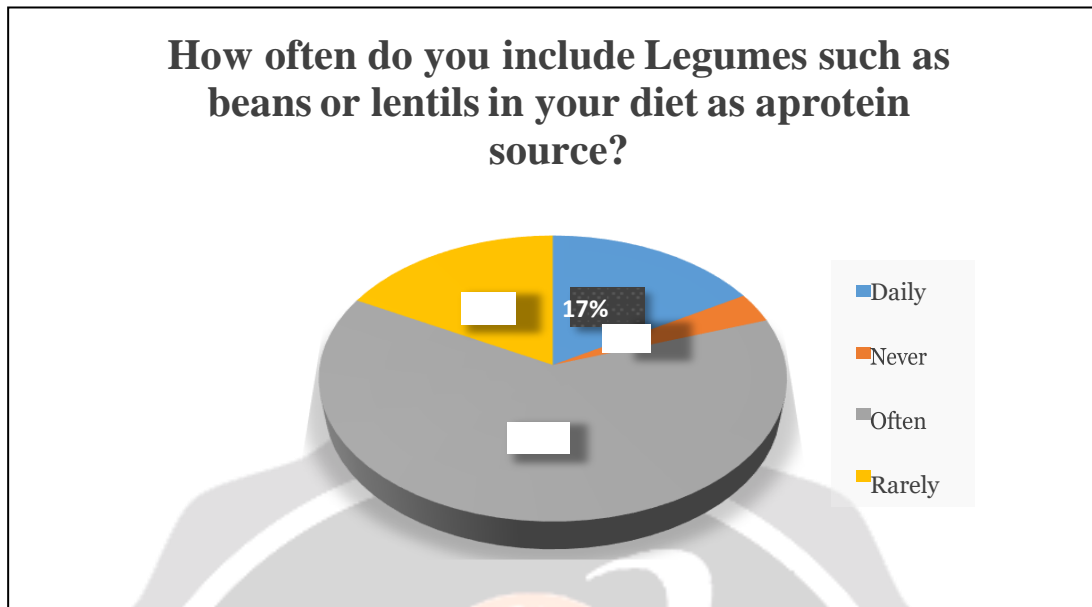
**Observation:**

- a) The majority of the responses agree to the point that social gatherings often revolve around meat centered meals that is 89 (count).
- b) While the other 36 responses disagree to the same.
- c) The remaining 27 (count) are not sure.

**Interpretation:**

The data conveys that most of the people from the total responses find social gatherings/events often revolve around meat centered meals while few others do not believe so or are not sure about it.

11.



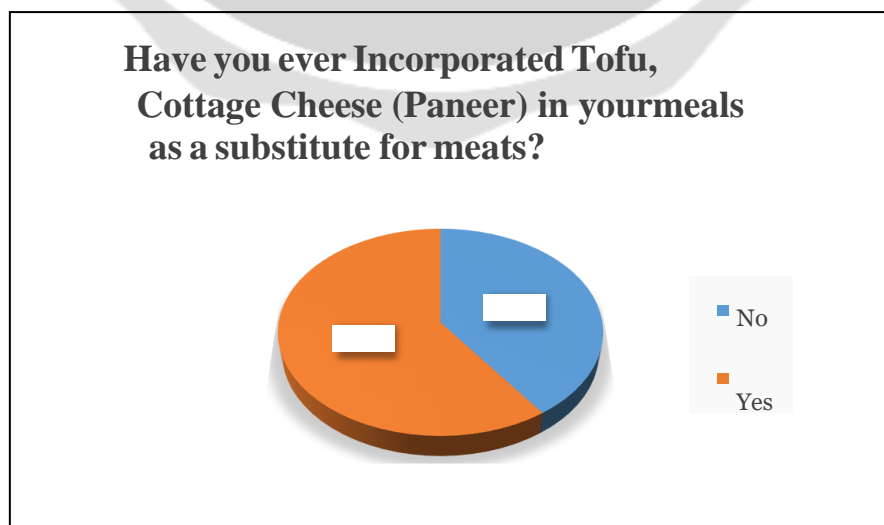
**Observation:**

- a) The majority of the people include legumes in their diet as a protein source that is 63%.
- b) Followed by the 17% people who consume legumes daily & the other 17% who rarely consume legumes in their diet.
- c) The remaining 3% never consume legumes in their diet.

**Interpretation:**

It has been interpreted that more than half of the responses include legumes in their diet quite often as a protein source while others consume it on the daily basis or not consume it at all.

12.



**Observation:**

- a) The majority of the responses have incorporated tofu, cottage cheese in their meals as a substitute for meats that is 60%.
- b) The remaining 40% have not incorporated tofu, cottage cheese in their meals as a substitute for meats.

**Interpretation:**

The interpretation made from this chart is that more than half of the responses have used tofu, cottage cheese in their meals as a substitute for meats while others probably stick to the traditional recipes or are not aware that there could be a substitution for meats as well.

**CONCLUSION**

In summary, hotel management has a big chance to take the lead in encouraging visitor wellbeing by investigating the impact of meat intake on human health in the context of the hospitality sector. Hotels can effectively address the complex issues surrounding meat consumption and help create healthier dining environments by implementing a comprehensive approach that includes sustainable sourcing, chef training, menu diversification, and collaboration with nutritionists.

By broadening their menu selections to include a variety of plant-based protein options, hotels may better accommodate customers' changing dietary needs and health-conscious preferences. This not only increases patron happiness but also shows a dedication to offering inclusive and well-balanced dining experiences.

Additionally, funding chef training programs that prioritize preparing wholesome, well-balanced meals can enable kitchen employees to produce delectable dishes that maximize flavor and nutritional content while minimizing dependency on meat products. Chefs can unleash the creative potential of plant-based ingredients and encourage diners to adopt healthy eating habits by investing in ongoing education and skill development.

Furthermore, hotels' dedication to ethical and environmental concerns is highlighted by their prioritization of sustainable procurement methods for livestock products. Hotels may make sure that their food offerings reflect the beliefs of their patrons and have a beneficial impact on the environment and society by working with reliable suppliers and upholding strict standards for animal welfare and environmental sustainability.

Working together with nutritionists and dieticians gives hotels important insights into the nutritional requirements and health objectives of their visitors, allowing them to create menus and meal plans that are customized to each person's tastes. Hotels may improve the quality of their food offerings and establish themselves as pioneers in the hospitality sector by utilizing the knowledge of health professionals.

Furthermore, programs that promote health awareness, provide nutritional information, and allow for guest feedback are vital instruments for encouraging communication, participation, and ongoing development. Hotels are able to modify and enhance their services in order to satisfy changing demands and expectations from their customers by proactively seeking feedback from visitors and implementing it into decision-making procedures. In conclusion, hotel management may improve public health, contribute to a more ethical and sustainable food system, and increase guest pleasure by adopting a holistic approach to addressing the consequences of meat consumption on human health. Hoteliers have the power to inspire healthy lifestyles in their communities and as agents of good change by fostering innovation, teamwork, and a dedication to quality.

**SUGGESTIONS**

1. Health Awareness Programs: Suggest setting up health awareness initiatives at hotels to inform visitors about the value of well-balanced diets and the negative effects of consuming too much meat.
2. Menu Diversification: To accommodate visitors with varying dietary choices and health-conscious customers, it is advised that hotel menus be expanded to include a greater variety of protein sources, including plant-based substitutes.

3. Nutritional Information: To enable customers to make educated diet decisions, propose offering nutritional information about menu items, such as protein content and health advantages.
4. Chef Training: Promote the inclusion of courses that teach cooks and kitchen workers how to prepare wholesome, well-balanced meals that use less meat.
5. Sustainable Sourcing: In order to support animal welfare and environmental conservation, hotels should make it a priority to source meat from ethical and sustainable sources.
6. Collaboration with Nutritionists: Suggest working with dieticians or nutritionists to create customized menus or meal plans based on the dietary requirements and health objectives of your guests.
7. Promotional efforts: Suggest starting efforts to draw attention to healthier menu alternatives and motivate visitors to choose better options while visiting.
8. Guest input methods: To enable ongoing improvement, propose putting in place methods for guests to provide input on their menu choices and dietary preferences.
9. Partnerships with Health Organizations: In order to take advantage of their knowledge and resources in support of balanced diets, it is advised to establish partnerships with health organizations or programs that promote healthy eating habits.
10. Meat-Free Events: To highlight the diversity and inventiveness of plant-based food and appeal to both meat-eaters and vegetarians, suggest planning sporadic meat-free events or themed nights.

## **BIBLIOGRAPHY**

1. Meat-eating extends human life expectancy worldwide Posted on Feb 22 2022  
By Michele Ann Nardelli <https://www.adelaide.edu.au/newsroom/news/list/2022/02/22/meat-eating-extends-human-life-expectancy-worldwide>
2. Meat consumption: Which are the current global risks? Published 29 May, 2020  
Authors: Neus González, Montse Marquès, Martí Nadal, and José L. Domingo  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7256495/>
3. Study: Meat Consumption is Positively Associated with Life Expectancy  
Feb 22, 2022  
By [Enrico de Lazaro](#)  
<https://www.sci.news/medicine/meat-consumption-life-expectancy-10577.html>
4. Eating meat leads to longer lives? Beware poorly designed studies with even more poorly interpreted results.  
March 31, 2022  
Posted by David Steele  
<https://www.earthsave.ca/blog/eating-meat-leads-to-longer-lives-beware-poorly-designed-studies-with-even-more-poorly-interpreted-results/>
5. What Are the “Costs and Benefits” of Meat-Eating in Human Evolution? The Challenging Contribution of Behavioural Ecology to Archaeology  
Authors:  
Camille Daujeard, Sandrine Prat <https://www.frontiersin.org/articles/10.3389/fevo.2022.834638/full>
6. The Richer They Get, the More Meat They Eat  
“Eating meat leads to longer lives? Beware poorly designed studies with even more poorly interpreted results”  
Vaclav Smil  
Posted on 28 July 2022  
<https://spectrum.ieee.org/meat-eater>
7. Do you eat meat daily? Health issues you need to be aware of Last updated on - Sep 2, 2023



TIMESOFINDIA.COM

<https://timesofindia.indiatimes.com/life-style/health-fitness/health-news/do-you-eat-meat-daily-health-issues-you-need-to-be-aware-of/photostory/103280975.cms>

8. Evidence for Meat-Eating by Early Humans

By: Briana Pobiner (Human Origins Program, Smithsonian Institution) 2013 Nature Education

<https://www.nature.com/scitable/knowledge/library/evidence-for-meat-eating-by-early-humans-103874273/>

9. What is the role of meat in a healthy diet? David

M Klurfeld

Published online 2018 Jul 7.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7015455/>

10. The Facts about the Importance of Meat in Nutrition MARCH 5, 2015

By DENNISON

<https://dennisonmeatlocker.com/the-facts-about-the-importance-of-meat-in-nutrition/>

:-:text=Meat%20is%20an%20excellent%20source,and%20effectively%20by%20the%20body

11. What Are the Positive Health Effects of Eating Meat?

By Hilaya Aliouche

<https://www.news-medical.net/health/What-Are-the-Positive-Health-Effects-of-Eating-Meat.aspx>

12. The role of red meat in the diet: nutrition and health benefits

Aug. 2016

Authors: Laura A. Wyness

<https://pubmed.ncbi.nlm.nih.gov/26643369/>

13. Health effects associated with consumption of unprocessed red meat Authors:

Charlie Ashbaugh, Ashkan Afshin

Published on 10 October 2022

<https://www.nature.com/articles/s41591-022-01968-z>

14. Benefits and Risks Associated with Meat Consumption during Key Life Processes and in Relation to the Risk of Chronic Diseases

Carlotta Giromini<sup>1</sup>, D. Ian Givens. Published on July

12 2022 <https://pubmed.ncbi.nlm.nih.gov/35885304/>

15. The Impact of Meat Consumption on Human Health, the Environment and Animal Welfare: Perceptions and Knowledge of Pre-Service Teachers

By António Almeida, Joana Torres and Isilda Rodrigues Published on 10 June 2023

<https://www.mdpi.com/2075-4698/13/6/143>

- WIKIPEDIA
- GOOGLE
- JOURNALS AND ARTICLES
- MAGAZINES
- DIGITAL NEWSPAPERS