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Review Article

# Foodborne Bacterial Diseases due to consumption of Meat, Fish and Poultry products

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## Abstract

The foodborne Bacterial Diseases due to consumption of the Meat and the Poultry pose significant health risks to consumers worldwide. The consumption of the contaminated animal products can lead to various illnesses, ranging from mild gastrointestinal discomfort to severe, life-threatening conditions. The most common bacterial diseases associated with the consumption of the meat and the poultry, including their sources, transmission routes, symptoms, prevention, and control measures. The understanding these foodborne diseases is crucial for ensuring the food safety and the implementing effective preventive strategies to protect the public health.

**Keywords:** bacterial diseases; meat; poultry; consumers

## Introduction

Foodborne Bacterial Diseases due to consumption of the Meat and the Poultry cause significant risks to the public health. The Salmonellosis, the Campylobacteriosis, the E. coli infections, and the listeriosis are among the most common bacterial diseases associated with these food products [86-93]. The consumers should be educated about the risks associated with the undercooked or the raw meat and the poultry and encouraged to practice the safe food handling and preparation [1-6]. Additionally, the government regulations and the industry standards play a vital role in ensuring that meat and poultry production facilities adhere to strict hygiene practices and implement effective control measures against the bacterial contamination [7-12].

The Salmonellosis: Salmonellosis is one of the most prevalent bacterial diseases associated with the meat and the poultry. The Salmonellosis is caused by the Salmonella bacteria, which are commonly found in the intestinal tracts of the animals [78-85]. The contamination of the meat and the poultry products can occur during slaughtering and processing, primarily through the fecal contamination. Consuming the undercooked or the raw contaminated meat and the poultry can lead to the salmonellosis in the humans [13-18]. Symptoms of salmonellosis include diarrhea, the abdominal cramps, the fever, and the vomiting. In severe cases, The Salmonellosis can result in dehydration and hospitalization [70-77]. Prevention and control measures of Salmonellosis involve the proper cooking and handling of the meat and the poultry, the strict hygienic practices during the processing, and the regular monitoring of the production facilities for the Salmonella contamination [19-24].

The Campylobacteriosis: The Campylobacteriosis is another common bacterial disease associated with the consumption of the contaminated meat and poultry. The Campylobacteriosis is caused by the Campylobacter bacteria, which are often found in the intestines of the animals, particularly the poultry [94-102]. Cross-contamination during the processing and the inadequate cooking are the main sources of the Campylobacter contamination in the meat and the poultry products [62-69]. The symptoms of the campylobacteriosis include the diarrhea, sometimes bloody, the abdominal pain, the fever, and the nausea. While the most cases are self-limiting, severe infections can occur, especially in the vulnerable populations [103-110]. The preventive measures include thorough cooking of the meat and the poultry, separation of the raw and cooked foods, and the proper sanitation practices in processing facilities [25-31].

The Escherichia coli (E. coli) Infections: Certain strains of the Escherichia coli (E. coli), such as E. coli O157:H7, are known to cause severe gastrointestinal illnesses in humans. Contamination of the meat and the poultry with E. coli can occur during the slaughtering process,

primarily due to fecal contamination [54-61]. Consumption of the undercooked or the raw contaminated products can lead to E. coli infections. Symptoms of E. coli infections include diarrhea (often bloody), abdominal cramps, and sometimes, kidney failure. Preventive measures involve thorough cooking of the meat and poultry, proper hygiene practices during processing, and the proper sanitation of production facilities [32-38].

Listeriosis: Listeriosis is caused by the bacterium Listeria monocytogenes and is primarily associated with ready-to-eat meat and poultry products. Listeria can contaminate the meat and poultry during the processing, and unlike many other bacteria, Listeria can grow at refrigerator temperatures [39- 46]. The Listeriosis can lead to severe symptoms, especially in pregnant women, the elderly, and individuals with weakened immune systems. Symptoms include fever, muscle aches, nausea, and, in severe cases, meningitis or blood infection [111-116]. The preventive measures of the Listeriosis include proper cooking and handling of the meat and the poultry, avoiding cross-contamination, and thorough the sanitation of the processing equipment and the facilities [47-53].

## Conclusion:

Foodborne Bacterial Diseases due to consumption of the Meat and the Poultry prevention and control measures, such as thorough cooking, the proper sanitation practices, and the adherence to the food safety guidelines, are crucial to minimizing the risk of Foodborne Bacterial Diseases due to the consumption of the Meat and the Poultry. By prioritizing the food safety measures at every stage of the supply chain, peoples can reduce the incidence of bacterial diseases in the meat and the poultry, safeguard the public health, and promote safer consumption practices.

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## Conflicts of Interest

The authors declare no conflicts of interest.

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