## Research paper on contaminated foods causes and effects

**Environment, Pollution** 



It is common nowadays to see and have foods cooked in various means. People tend to eat these foods to energize themselves for the duration of the day, may it be home-cooked or processed. Food is often considered a boost for many, especially for those who are exercising and recovering from sickness. However, food tend to become man's worst poison once it slowly rots or becomes contaminated with the additives and chemicals placed in them. In this case, food becomes contaminated with diseases and viruses that could severely destroy the human body. It is common to hear in newsflash of instances of food poisoning due to food, some dying due to the contamination. While food safety is given proper attention nowadays by consumers, the chances of contamination are still high considering that nowadays, food is easily contaminated in other means aside from becoming rotten. Food contamination if not properly identified or cleaned out, can present severe consequences as it can present severe pain and even death. With the various types of contamination, the simplest food safety precautions can also present food contamination and affect people severely through food poisoning or death.

Food contamination can be caused by three factors: biological, chemical, and physical factors. Biologically, food can be contaminated by raw materials such as water, land and air. Raw materials work hand in hand in both fostering growth for crops, however, once it is contaminated by microorganisms or bacteria, it may also affect the growth of the crop. In case of water, it can be contaminated by either bacterial genuses such as Micrococcus, and Aeromonas; molds like Botrytis and Penicillium, and yeast. In most cases, water can be contaminated by protozoa and viruses such as

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Hepatitis A or Polio. Water contamination can also be fostered depending on the environment of the water source as some viruses such as the Vibrio are connected in fresh water and estuaries. Depending on the quality of the water supply of farms, waterborne contamination is possible in most nations that do not have the benefits of water treatment. Soil can also contaminate food in terms of the presence of pesticides, fertilizer and the water source it receives. Similar to water contamination, soil is easily contaminated by microorganisms due to its composition. Several pathogens can easily mix in the crops through the soil, which includes spores and enterobacteria. According to studies, bacteria or viruses acquired from the soil can pass to the crops once water enters the soil. This would result to the harboring of crops of pathogens that can foster food poisoning.

Chemical contamination can usually be received by the food through chemicals, pesticides, and even metals found in containers or equipment.

Normally, chemical food contamination can come from biological contamination and food processing or storage. Physical factors of food contamination cater to environmental factors such as objects in the food processing area, and cross-contamination. In cross-contamination, bacteria are passed from the contaminated source (which can be physical or biologically passed) to the clean food (normally the fresh and uncooked foods). While contamination can indeed be caused by various factors, ensuring food safety can also determine if food could become safe for consumption or retain its contamination. It has been advised that proper personal hygiene when preparing food can aid in stopping the physical contaminations to food. Facilities and the environment must also be sterile to

ensure that contamination is lessened. Sometimes, food can be contaminated even by the temperature or environment on where food is processed or prepared.

It is undeniable that consuming contaminated food presents risks to anyone due to the contaminants inside the food. Doctors often indicate that people or animal that eat contaminated food in any amount are bound to exhibit symptoms of food poisoning. While there are cases that some people are capable of withstanding the effects of contaminated food in their system, the symptoms of food poisoning can present themselves in various onsets. The usual symptoms of food poisoning constitute vomiting, abdominal pain, and diarrhea. In some cases, patients are also prone into dehydration or fever. Doctors often note that time when the food was eaten, and the symptoms can identify the causes of the symptoms of food poisoning. In some cases, food poisoning may occur slowly due to intake of insecticides. However, food poisoning tends to affect a person immediately and without warning. While food poisoning is easily remedied depending on the first-aid done by the patient, cases of severe food poisoning can present some dangers. In some cases, dehydration can cause diarrhea that bring the patient to the hospital for further treatment. One of the severe cases of food poisoning is known as Botulism. Botulism is usually acquired if a patient had eaten a badly preserved or improperly stored food. The toxin that fosters Botulism is fatal, and it is needed to administer the treatment to counteract the effects of the disease. Botulism can cause death if not immediately treated. Upon the identification of the source and symptoms of food poisoning, treatment can be done immediately through first aid before being treated by a specialist. In most cases pertaining to food poisoning, patients would

experience severe pain, vomiting and diarrhea. Both vomiting and diarrhea can help the patient to get rid of the toxins that had built up in the body. Patients must also be supported to reduce stress and must be given water to prevent cases of dehydration. Food must not be given to the patient while the patient is not treated of contamination. Should the food poisoning case is caused by infective bacteria; patients must be treated immediately at home. Doctors may prescribe antibiotics or sulfonamides for patients . Nowadays, the possibilities of food contamination are high considering the nature of biological, physical and chemical vulnerabilities of crops by the time it is grown to processing. Simply cleaning the food with water or checking its physical aspects cannot aid people in making sure that the food is not contaminated in some way. While food safety precautions can be done to ensure that food can be safe for consumption, the risk of contamination still presents itself even in the slightest mistake in food safety precautions. The severity of consuming contaminated food is severe as bacteria or viruses are consumed directly to the body, easily influencing the body's capacity to hold food and protect itself from viruses. Some may even succumb to death if the contaminated food influences their bodies severely. It is crucial to criticize food not only in its physical nature, but also in its characteristics and preparation.

## **Works Cited**

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