FOOD POISONING IN CHILDREN

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ABSTRACT
Intake of contaminated food causes food-borne illness i.e. food poisoning and because the digestive system of infants and children is not fully developed, they are at a high risk. Also school going children eat outside and get affected with food poisoning. Diarrhoea, nausea, vomiting and fever are the common symptoms of food poisoning. But they vary because of different bacteria and different types of food. So some may have very mild symptoms and on the other hand some may exhibit severe signs. Different kinds of bacteria have different signs and symptoms of food poisoning. Treatment depends on the severity of the dehydration, response to therapy, and ability to drink fluids without vomiting. Children, in particular, may need close observation.

KEYWORDS: Dehydration, Nausea, Food Borne Illness.

INTRODUCTION
Food poisoning, also called food borne illness, is illness caused by eating contaminated food. Infectious organisms including bacteria, viruses and parasites or their toxins are the most common causes of food poisoning. Infectious organisms or their toxins can contaminate food at any point of processing or production. Contamination can also occur at home if food is incorrectly handled or cooked. Food poisoning symptoms, which can start within hours of eating contaminated food, often include nausea, vomiting or diarrhea.

The following bacteria commonly cause food poisoning signs in children. Each bacteria leads to different signs and symptoms of food poisoning and none of them should be taken lightly.

<table>
<thead>
<tr>
<th>Types of Food poisoning</th>
<th>Source of infection</th>
<th>Signs and symptoms</th>
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<tbody>
<tr>
<td>1. Campylobacter food poisoning</td>
<td>Contaminated water, raw poultry and raw milk.</td>
<td>Fever, Watery diarrhoea and headache</td>
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<tr>
<td>2. Salmonella food poisoning</td>
<td>Undercooked eggs, poultry, seafood, and dairy products.</td>
<td>Nausea, Vomiting, Stomach Cramps</td>
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<td>3. Clostrium botulinum</td>
<td>Canned vegetables, smoked or raw fish, honey, corn syrup, cured pork or ham</td>
<td>Weakness, problems while speaking, blurred vision, droopy eyelids and difficulty in swallowing.</td>
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<td>4. E. coli</td>
<td>Food or water contaminated with feces.</td>
<td>Severe diarrhoea and painful abdominal cramps</td>
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<td>5. The Staphylococcal food poisoning</td>
<td>Eating cream filled cakes, pies, salads and dairy products.</td>
<td>Rapid onset of nausea, severe vomiting, dizziness and abdominal cramps</td>
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CAUSES OF FOOD POISONING
It can be divided into two categories: infectious agents and toxic agents.
- **Infectious agents** include viruses, bacteria, and parasites.
- **Toxic agents** include poisonous mushrooms, improperly prepared exotic foods (such as barracuda - ciguatera toxin), or pesticides on fruits and vegetables.
6. Bacillus cereus:
- Rice and starchy foods.
- Undercooked meat and raw seafood.
- Contaminated food, utensils and even surfaces, daycare centers and schools.

7. Cholera
- Onset of diarrhea and vomiting along with abdominal cramps.
- Cramps, diarrhea, vomiting, nausea, headaches and fever with chills.
- Severe vomiting.

8. Norovirus

FOOD POISONING TREATMENT

The main treatment for food poisoning is replacing fluids into the body (rehydration) through an intravenous administration. Anti-vomiting and diarrhoea medications may be given. Antibiotics are rarely needed for food poisoning. In some cases, antibiotics worsen the condition. Only a few specific causes of food poisoning are improved by using these medications. The length of illness with traveler's diarrhea (shigellae) can be decreased with antibiotics, but this specific illness usually runs its course and improves without treatment. With mushroom poisoning or eating foods contaminated with pesticides, aggressive treatment may include intravenous (IV) fluids, emergency intervention for life-threatening symptoms, and giving medications such as antidotes, such as activated charcoal. These poisonings are very serious and may require intensive care in the hospital.

PREVENTION OF FOOD POISONING

Most cases of foodborne illness can be prevented through proper cooking or processing of food, which kills bacteria. In addition, because bacteria multiply rapidly between 40°F and 140°F, food must be kept out of this "danger zone."

To prevent harmful bacteria from growing in food, always:
- Refrigerate foods promptly. If you let prepared food stand at room temperature for more than 2 hours, it may not be safe to eat. Set your refrigerator at 40°F or lower and your freezer at 0°F.
- Cook food to the appropriate temperature (145°F for roasts, steaks, and chops of beef, veal, and lamb; 160°F for pork, ground veal, and ground beef; 165°F for ground poultry; and 180°F for whole poultry). Use a thermometer to be sure! Foods are properly cooked only when they are heated long enough and at a high enough temperature to kill the harmful bacteria that cause illness.
- Prevent cross-contamination. Bacteria can spread from one food product to another throughout the kitchen and can get onto cutting boards, knives, sponges, and countertops. Keep raw meat, poultry, seafood, and their juices away from other foods that are ready to eat.
- Handle food properly. Always wash your hands before touching food and after using the bathroom, changing diapers, or handling pets, as well as after handling raw meat, poultry, fish, shellfish, or eggs. Clean surfaces well before preparing food on them.
- Keep cold food cold and hot food hot.
- Maintain hot cooked food at 140°F or higher.
- Reheat cooked food to at least 165°F.
- Refrigerate or freeze perishables, prepared food, and leftovers within 2 hours.
- Never defrost food on the kitchen counter. Use the refrigerator, cold running water, or the microwave oven.
- Never let food marinate at room temperature; refrigerate it.
- Divide large amounts of leftovers into small, shallow containers for quick cooling in the refrigerator.
- Remove the stuffing from poultry and other meats immediately and refrigerate it in a separate container.

NURSING MANAGEMENT

1. To Control Nausea and Vomiting
   - Avoid solid foods like fried greasy, or sweet foods.

2. To Prevent Dehydration
   - Drink clear fluids, starting with small sips and gradually drinking more.
   - If vomiting and diarrhea last more than 24 hours, drink an oral rehydration solution.

3. NUTRITION
   - To maintain nutrition status something dry foods like dry toast or crackers.

4. SUPPLEMENTS
   - Take some probiotic supplements or eat yogurt with live cultures. Probiotics are live microorganisms that are beneficial for your body and can help prevent or treat symptoms caused by the harmful bacteria, including the kind that cause food poisoning. They are also touted for their ability to boost your immune system and prevent infection.

Complications of Food Poisoning

The food poisoning signs in children differ for different types of food poisoning. Some exhibit mild food poisoning signs in children and some develop severe complications. Some microorganisms, such as Listeria monocytogenes and Clostridium botulinum, cause far more serious illness than vomiting or diarrhea. They can cause spontaneous abortion or death.
Do not pack the refrigerator. Cool air must circulate to keep food safe.
Cook foods properly and at a high enough temperature to kill harmful bacteria.
Refrigerate foods within 2 hours or less after cooking because cold temperatures will help keep harmful bacteria from growing and multiplying.
Clean surfaces well before using them to prepare foods.

REFERENCES.