

'STAPH'

FOOD POISONING

By A. Paul Adams

Food poisoning is a common affliction and very few adults go through life without suffering one or more cases of it. Although food poisoning can be caused by chemical as well as bacterial agents, by far the most common type is caused by bacteria called **Staphylococci**.

A typical case of this type of food poisoning might be cited: A community dinner is planned and each housewife in the community is assigned a dish which is her specialty. The menu includes baked ham, potato salad, Boston baked beans, dill pickles, hot rolls and a beverage, and coconut cream pie. Everyone comes early as it is a warm summer day and many activities are planned. The dishes of food are lined up on the picnic tables and covered with clean white cloths to keep off the flies. Along towards evening the dinner bell is sounded and everyone sits down to a delicious meal. After the meal the tables are cleared away and the folks go home unanimous in their opinion that the day was a great success. About 3 to 4 hours after the feast the local physician is besieged by telephone calls from people in distress. The symptoms are severe nausea, retching, vomiting, diarrhea and abdominal cramps. The doctor can do little to counteract the affect of the toxin but after about 24 to 48 hours

most of the afflicted patients have satisfactorily recovered.

What was it that caused all this misery? Grandma called it "ptomaine poisoning".

The example cited here is repeated with variations many times in the state each year. Nearly a million cases of **Staphylococcus** food poisoning occur each year in the United States.

The question is, how can **Staphylococcus** food poisoning be prevented. In order to do this a thorough knowledge of the principles involved is required.

The bacteria that cause this type of food poisoning are commonly found on the human body and can easily be recovered from the skin surfaces of many individuals. They are especially prevalent in boils, pimples, wound infections and in infections of the upper respiratory tract. Therefore, food handlers should observe habits of personal cleanliness and should not prepare food if they have a site of infection on their hands, or if they are suffering from a sore throat.

A careless sneeze may contaminate large amounts of food with bacteria! Since these bacteria grow at such a phenomenal rate when held at room temperature or slightly warmer a few of them may multiply to millions in just a

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few hours. Fortunately, however, their growth can be stopped by lowering the temperature. If the temperature of the food is lowered to 40°F (usual refrigeration temperature) their growth is very slow or halted.

Some foods serve as better food sources for the bacteria than others. Many case histories have been studied to find out which foods are most commonly involved in this type of food poisoning. Generally, non-acid foods serve as the best growth medium for **Staphylococci**. Ham, poultry, cream pies and creamed dishes are notorious. Cream puffs and hamburger can also be very dangerous if they are contaminated and left unrefrigerated.

The toxin produced by the **Staphylococcus** bacteria is produced by the bacterial cells as it grows and multiplies and is secreted into the surrounding food.

Heating the food cannot be relied upon to destroy the toxin because it is heat-stable. Therefore, a food that has been contaminated by the bacteria will not be safe to eat if the toxin was produced before cooking.

Although the heat will kill the **Staphylococcus** it cannot be relied upon to destroy the toxin. Later, when this food is eaten, the symptoms will appear as soon as the food leaves the stomach and enters the small intestine. Hence, one can expect to become ill about 3 to 4 hours after eating the involved food.

Since this toxin has a special effect on the nerve and muscle tissues lining the gastro-intestinal tract we get the typical symptoms of nausea, retching, vomiting and diarrhea. The muscular spasms caused by this toxin can cause some very severe cramps in the stomach and

bowels. The infected food then passes through the intestinal tract and is expelled, after which the symptoms are usually alleviated.

The period of discomfort usually lasts 24 to 48 hours. This type of food poisoning is seldom fatal but it is extremely uncomfortable.

Since other types of food poisoning may be confused with this one, consult your physician immediately. He can then take measures to trace the origin of the food poisoning and, perhaps, prevent other outbreaks. Occasionally, young children also will become dehydrated and it may be necessary to give treatment to maintain body fluids.

SUMMARY

Follow these rules to avoid **Staphylococcus** food poisoning:

1. Never prepare food if you have infections or sores on your hands.
2. Avoid coughing or sneezing into foods.
3. Always keep food refrigerated until time to cook or eat it.
4. When eating away from home be careful to choose restaurants that are clean and have a Grade A rating.
5. When purchasing meat insist on meat that has been kept refrigerated. Modern methods of curing meat cannot be relied upon to stop spoilage at room temperature.
6. Call your physician and give him a complete report if anyone in your family becomes ill with the symptoms described in this article.

(This article is one of a series on food poisoning).