IOWA STATE UNIVERSITY EXTENSION

and

IOWA DEPARTMENT OF PUBLIC HEALTH

HOW TO CLEAN UP

AFTER A FLOOD

AND

PRECAUTIONS AGAINST DISEASE IN

FLOOD AREAS

Fact Sheets – Furnished by the

IOWA DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
LUCAS STATE OFFICE BUILDING
DES MOINES, IOWA 50319
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Answer Line (questions for home and family): **1-800-262-3804 (8 AM – 5 PM)**

Iowa Concern Hotline: **1-800-447-1985 (24 hours)**

IOWA DEPARTMENT OF PUBLIC HEALTH (5/99)
PRECAUTIONS AGAINST DISEASE IN FLOOD AREAS

I. TETANUS – A RISK. TYPHOID -- NO CAUSE FOR ALARM

Typhoid

There is no valid reason for a typhoid immunization at the time of a flood. Routine typhoid immunization in the United States during normal times is not indicated. Cases of typhoid reported in the United States are almost totally from foreign countries. Protection from typhoid through the immunization takes at least three weeks, so the immunization will not be effective at the time of flooding. There is virtually no danger of contracting typhoid solely because of a flood.

Tetanus

Any wound which breaks the surface of the skin, particularly puncture wounds or deep cuts, can result in tetanus (lockjaw). A booster is routinely recommended every 10 years. Anyone receiving a wound where the skin is penetrated should consult a physician to assure that the wound is clean and not infected and that their tetanus immunization is current. If an injury occurs, the following is recommended:

1. Minor injury – give booster if last booster was over 10 years ago.

2. Major injury – give booster if last booster was over 5 years ago.

Call your county health department for information on obtaining a tetanus immunization.

Hepatitis A

There is a vaccine available for Hepatitis A, which is transmitted by water or food that has been contaminated by feces. Neither Hepatitis A vaccine nor immune globulin is recommended because Hepatitis A outbreaks have not been associated with floods.

Other Illnesses

Other diseases may appear as a result of flooding, notably dysentery or diarrhea. There is no good immunization against these diseases. Excellent personal hygiene and the avoidance of eating or drinking contaminated foods are the prime preventive measures.

II. SAFEGUARD DRINKING WATER

Drinking water contaminated by floodwater may carry microorganisms capable of producing diarrhea, dysentery, enteritis, infectious hepatitis, and other water-borne diseases. Listen to the news to find if your public water supply is contaminated. Public water supplies usually will not be contaminated and should be used whenever possible. However, all drinking water from wells or springs which may have been contaminated by floodwater should be boiled at least two minutes.

For drinking: Boil all bulk (hauled-in) water for at least two minutes. Other liquids, such as pop and bottled water, that are sealed by the producer, may be used directly from the container.

For infant formula: Use pre-mixed formula. You may mix dry formula with drinkable water if pre-mixed formula is not available. However, pre-mixed formula is preferred.

For dishwashing: Dishes may be washed in clear, non- –drinkable water if rinsed in hot, drinkable water. Otherwise, wash and rinse in hot, drinkable water.

For brushing teeth: Clean, non-boiled water may be safe, but it is best to use boiled water.

For other uses: Water out of the tap (if available) may be used for showering and toilet flushing.

Nitrate

If levels of nitrate in the water were not elevated before the flood, they will not be a problem as a result of flooding because of the extreme dilution factor.

Pesticides

Chemicals and pesticides are not considered to be a problem in floodwaters due to the extreme dilution factor.

III. RESTORING FLOODED WELLS

To Restore a Flooded Well

1. Pump as much dirty water from the well as possible, draining the complete piping system. Extend watertight casing above flood level and seal with a snug-fitting well cap or lid.

2. Disinfect the well with a chlorine solution of one gallon of laundry bleach mixed with two or three gallons of water. Pump the chlorine solution

through all outlets in the plumbing and leave it in for at least 24 hours before pumping it out. After all chlorine has been pumped from the system (no chlorine taste or odor in the water), a water sample should be collected and analyzed for bacteria. Contact the University Hygienic Laboratory at 319/335-4500. Collection bottles and mailing containers must be obtained from the laboratory. There is a $10.00 fee for this service and an additional $5.00 for nitrate analysis.

NOTE: MOST OF THE BORED-TILE CASING DRINKING WELLS IN IOWA ARE NOT CONSTRUCTED TO PREVENT NORMAL SURFACE CONTAMINATION (NON-FLOOD RELATED). THEREFORE, DISINFECTION AS DESCRIBED ABOVE MAY NOT BE EFFECTIVE TO ASSURE SAFE WATER. BORED-TILE CASED WELLS CAN BE EASILY REBUILT USING "BURIED SLAB CONSTRUCTION" TO ASSURE BACTERIA-FREE WATER. IF YOU DO THIS, YOU SHOULD USE A CONTRACTOR WHO IS FAMILIAR WITH THIS METHOD.

IV. SAFEGUARD AGAINST CONTAMINATED AND SPOILED FOOD

All milk for human consumption should be properly pasteurized. If pasteurized milk is not available, raw milk should be heated to the boiling point, but not boiled, before usage.

All canned foods, meats, and vegetables in direct or indirect contact with floodwater should be treated as follows:

1. Throw away food containers showing signs of leakage or swelling.

2. Destroy the contents of corked bottles and screw-top glass containers that have been covered by floodwaters.

3. All canned goods with a metal seal that have been covered with floodwater should be carefully washed with soapy, hot water. Sterilize the end of the washed can to be opened by dipping it into boiling water for 30 seconds or wiping the top with full-strength chlorine bleach. Be sure the can opener is clean.

4. Destroy all root and garden vegetables or foods in cardboard or similar containers in contact with floodwaters unless they will be thoroughly cooked or are soaked in disinfecting solutions before eating.

V. REFRIGERATED FOODS

Failure of home refrigeration facilities for one day or more may lead to food spoilage. Foods most likely to be affected include cream-filled pastries, tongue, ham, luncheon meat, dressed salads, etc. When kept unrefrigerated for a long period of time, such foods are not safe and should be destroyed. Cooked foods, such as stews or leftovers stored in deep freezers should be used if thawed. Thawed foods should not be refrozen. If the freezer temperature has been 50 degree or higher for several hours, thawed foods may be used within a few hours. Such thawed meats should not be served rare, but should be thoroughly cooked before eating.

VI. CLEAN UP YOUR HOME

When the floodwater has left the home, scrub all affected surfaces with soap and water, then rinse with a chlorine solution of one-half cup household chlorine laundry bleach to each gallon of water. Do not mix chlorine with ammonia or other cleansers containing ammonia.

VII. PERSONAL HYGIENE

Wash hands thoroughly with soap and water after using the bathroom, handling contaminated articles or working in flood cleanup, and before preparing or eating food. Clean non-drinkable water may be used, but drinkable water is preferred.

VIII. ADDITIONAL INFORMATION

If you have questions, please contact the Iowa Department of Public Health at 515/281-3479.