



Florida Conference of Seventh-day Adventists
Florida Conference Brigade, Medical Cadet Corps
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Disaster Public Hygiene

When large groups are sheltered together, as after a disaster event, public health becomes a concern. There are some important measures to do to avoid the spread of disease. **The primary public health measures include:**

- Maintaining proper hygiene
- Maintaining proper sanitation
- Purifying water
- Preventing the spread of disease

Maintaining Hygiene

The following actions are needed even in makeshift conditions in order to maintain **personal hygiene:**

1. Wash hands frequently using **soap and water. 20 seconds** of rubbing on all surfaces under running water is good. Alcohol-based hand sanitizers are an alternative, but at least 65-70% alcohol is needed for today's virus outbreaks. Place about a teaspoon into the palm of your hand and rub hands together covering all surfaces.
2. Wear non-latex exam **gloves** at all times. Change after each patient. Under field conditions, rubber gloves can be used. Sterilize between patients by dipping gloves in a bleach and water solution for 20 seconds. The solution is 1 part bleach to 10 parts water.
3. Keep dressings sterile. Only open the wrapping as you need to use them. Even if it is only a clean dressing, try to maintain its cleanliness as possible.
4. **Wash surfaces** with soap and water or diluted bleach solution that come in contact with bodily fluid.
5. Wear other **protective equipment** for personal safety: masks, helmets or head coverings, boots, eye coverings and work uniforms. If masks are not available, use 3 or 4 layers of cotton as a bandana. There is a class available on making masks in the elective section of trainings.

Maintaining Sanitation

Poor sanitation is a major cause of infection, especially in a stressed population. It is important that MCC members work to make a safe environment during exercises or in the field.

- **Control the disposal** of bacterial sources (soiled gloves, dressings).
- Put **waste products in plastic bags**, tie off the ends and mark them as medical waste. This can then be removed as hazardous waste if the resources are available.
- **Bury human waste**. Select a burial site away from the operations area and mark the burial site for later cleanup. If needed and possible, a field latrine can be made for use of the team.

Water purification

Potable water supplies are often in short supply during a disaster. Water is needed in large amounts for drinking, cooking, and medical use. Knowing how to purify water for use is necessary.

Method 1: Boil.

- If water is cloudy, let it settle and filter through a clean cloth, towel, or coffee filter.
- Bring water to a rolling boil for 1 minute. At altitude above 5000 feet, boil for 3 minutes.
- Let water cool naturally and store in a clean container with lids.
- To improve the taste, add a pinch of salt to a quart or liter of fluid.

Method 2: Use water purification tablets in the place of boiling.

- Filter or strain the water before adding the tablets or drops. Also, there are many individual water bottles that have specialized filters to clean the water for potable use.

Method 3: Disinfect the water using bleach.

- Use 8 drops per gallon of water and up to 16 drops if cloudy or cold water.
- Make sure you are using unscented regular concentration of bleach.
- Let the water and bleach sit for 30 minutes. The water should have a slight chlorine odor. If it doesn't, repeat the dosage of drops and let stand for another 15 minutes before use. If the chlorine taste is too strong, pour the water from one clean container to another and let it stand for a few hours prior to use.

Note: Bleach may contain 6 or 8.25% sodium hypochlorite. Pool shock is a concentration of 12.5% sodium hypochlorite.

Remember that medical operations are a team effort. Practice together so that you can function as a team. This is a basic overview of a very broad subject, so listen to those members who have done a few events before. God is our ever present Help in all our times of need.

Preventing the Spread of Disease

All of the above discussions are needed to reduce the spread of disease.

- Taking care of your team will boost your own immune system. Having group worship at rest breaks will boost the benefit of your efforts
- . Humming increases the immune response protecting the nose and mouth
- Salt water gargles reduces the contamination of the mouth and nose.
- Washing the face and neck can be as important as washing your hands.

Knowledge Assessment

A. Circle the correct answer:

1. What is an acceptable way to clean your hands?

- a. Wash with soap and water for 10 seconds
- b. Use baby wipes
- c. Wipe hands on a cleaning rag

2. What are methods to use for sanitation in the field?

- a. Put human waste into plastic bags in a dump pile
- b. Bury soiled dressings under 1 foot of dirt.
- c. Bury human waste underground leaving a marker for later cleanup.

B. Practice filtering and purifying water using as many different types as possible. Any local source of rain water or standing water can be used. Use pH testing strips of the water to see the impact of your efforts. (The main point is a visual change from contaminated water to water that has been purified).

C. Practice using exam gloves under work gloves doing simple tasks to become used to the feel of working with glove layers.

D. Leviticus 11-15 is the basics for public health, even with our understanding of disease transmission today. Read the chapters and see how many concepts are recognized by practices now.

Disaster Public Hygiene


For course certification, the form must be filled out.


Member Name (Print) _____ Instructor Name (Print) _____


Member Position Number _____ Instructor Position Number _____


Member FEMA SID _____ Instructor FEMA SID _____

Date of Instruction _____

 Know the primary public health measure for medical operations in a disaster.

 Understand the hand washing protocols and the cleaning of surfaces and bandaging.

 Know the methods of dealing with various waste products.

 Learn the methods for purification of water for potable and medical use.

_____ Practice water purification methods.

With a complete sheet of initials, the instructor's signature signifies certification of completion for the Disaster Public Hygiene course.

Instructor Signature _____