URBAN AREA SECURITY INITIATIVE

PUBLIC HEALTH EMERGENCY PREPAREDNESS GUIDE

FAMILY PREPAREDNESS BASICS

Is your family prepared for a public health emergency or disaster?

The fact is, far too many of us are unprepared when a public health emergency or disaster strikes. This guide will help you and your family set up an emergency plan; build an emergency kit; plan how to care for children, the elderly, people with access and functional needs and pets; and learn about shelters and returning home.

Family preparedness involves:

- Developing and practicing an emergency plan.
- Knowing what types of disaster or public health emergencies are likely to occur in your area.
- Knowing what actions to take if they do.

The types of emergencies you need to prepare for depend greatly on where you live. Be sure to prepare for the risks that are specific to your area.

TYPES OF EMERGENCIES

Public Health: Pandemics, anthrax, botulism, E.coli 0157:H7, influenza, pneumonic plague, staphylococcus infection, chemical emergencies, ricin, salmonellosis, West Nile virus

Natural: Floods, hurricanes, thunder and lightning storms, tornadoes, winter storms, landslides, earthquakes, extreme heat, fires, wildfires

Terrorism: Explosions, biological threats, chemical threats, nuclear blasts, radiological dispersion devices (RDDs)

Technological: Hazardous material (hazmat) incidents, nuclear power plant incidents

QuickTip

When preparing your family for a public health emergency or disaster, it's best to plan on being on your own for 72 to 96 hours, as emergency services may take some time to reach you.

You should plan for different situations. For example, plan what to do when everyone is at home and what to do when family members are at work or school. Consider the following:

- Emergency kits
- Family communications
- Shelter-in-place plans
- Escape routes and evacuation plans
- Public shelters
- Utilities shutoff and safety
- Food and water safety

QuickTip

When preparing your family for disaster, it's best to sign up for your city's or county's emergency alert system.

WORK, SCHOOL AND DAY CARE PREPAREDNESS

Knowing the emergency plans of each facility and how to communicate with staff will help you reunite with your family during an emergency.

Ask your child's school or day care:

- How they will contact families in an emergency.
- If they store enough food, water and other supplies.
- If they are equipped to shelter in place.
- What their evacuation plans are.

Create secondary plans for your children if you can't reach them.

EMERGENCY KITS

When a public health emergency or disaster strikes, you and your family might have to shelter in place and survive on your own. If this happens, you need to be prepared with enough food, water and other supplies (at least 72 hours' worth).

AT-HOME FAMILY EMERGENCY KIT

☐ One-week supply of nonperishable food and water (one gallon per person per day)	☐ Battery-powered/crank radio, flashlight and cell phone
☐ Extra batteries/chargers for all devices	☐ First aid kit
☐ Sanitation and hygiene items	☐ Waterproof matches or lighter
☐ Whistle	☐ Extra clothing (temperature-/climate-specific)
☐ Toilet paper	☐ Utensils, cooking gear and a can opener
☐ Waterproof emergency document holder	☐ Cash or traveler's checks
☐ Special-needs items (e.g., prescriptions, eyeglasses)	☐ Items for infants or other unique family needs
☐ Wrench/pliers	☐ Local maps
☐ Pet food, water and vaccination records	☐ Paper and pen for documentation

QuickTip

Remember to rotate items with expiration dates twice a year when you change your clocks.

MEDICAL SUPPLY KIT

☐ Thermometer	☐ Hand sanitizer (at least 60% alcohol)
☐ Medications for fever, pain, diarrhea, coughs or colds	☐ Disposable gloves
☐ Medical masks or N91 respirators	☐ List of doctors' phone numbers
☐ Medical supplies for chronic conditions	

FIRST AID KIT

Make first aid kits for your home and each car.

☐ Various shapes and sizes of adhesive bandages, dressings and gauze pads	☐ Cohesive bandage (3") and adhesive tape (2" wide) roll
☐ Germicidal hand wipes or alcohol-based hand sanitizer	☐ Sterile gloves (e.g., latex)
☐ Tongue depressors and wooden applicator sticks	☐ Antibacterial, antibiotic and burn ointments
☐ Cleansing agent (soap)	☐ Instant cold pack
☐ Scissors, needles, tweezers and safety pins	☐ Thermometer and petroleum jelly or other lubricant
☐ Cotton balls	☐ Sunscreen
☐ CPR breathing barrier	☐ First aid manual
☐ Water purification tablets or LifeStraw® water filter	☐ Aspirin and nonaspirin pain relievers, antidiarrhea medication, antacids, laxatives and vitamins

GO BAG

Everyone in your home should have their own go bag packed and ready to go in case you have to leave in a hurry.

☐ Batteries	☐ Battery-powered/crank radio, glow sticks, flashlight and cell phone
☐ Dust mask	☐ Whistle and pepper spray
☐ Waterproof matches or lighter	☐ Pocket knife (multiuse) or multitool
☐ Shoes, change of clothes, poncho (for rain), gear/tent, Mylar emergency blankets	☐ Cash and coins for public phones
☐ First aid kit	☐ Sewing kit
☐ Rope, duct tape and plastic sheeting	☐ Waterproof emergency document holder
☐ Personal hygiene items (e.g., soap, wipes)	☐ Survival manual/guide and local maps
☐ Special-needs items for infants, etc.	☐ Extra keys to home/car

EMERGENCY DOCUMENT HOLDER

Keep copies of important documents with your at-home emergency kit and in your go bag.

☐ Copy of passport	☐ Copy of driver's license or other forms of ID
☐ Medications list and medical records (including immunization)	☐ Copies of insurance policies
☐ Bank account records	☐ Cash or traveler's checks
☐ Family emergency plan	☐ List of important phone numbers
☐ Copies of credit cards	☐ Wills and marriage certificate

CHILDREN

As a parent, you will need to provide for your children's physical and emotional needs. You will have to cope with the disaster in a way that will prevent them from experiencing a sense of loss. Speak their language, let them ask questions and let them know that they are safe.

Children will have different (often age-related) reactions to disasters, but the two most common signs of distress are behavior changes and regression (e.g., preschoolers may resume thumb-sucking or become afraid of strangers).

Before disaster strikes, help your children better cope by involving them in the planning and practice of your emergency plan. They can help keep the family's emergency kits up to date and mark calendars with when to check supplies, when to change food and water, and when to replace batteries.

As early as possible, teach your children the basic information they need to know:

- Their first and last names, and the first and last names of both parents
- Parents' and/or home phone number(s) and home address(es)
- How and when to call **911** and other emergency numbers
- Who to contact if they can't reach you (names, phone numbers, addresses)
- Your family meeting places

QuickTip

During a disaster, pregnant women should continue prenatal care (even with a different health care provider), drink plenty of water and avoid toxins or getting infections.

EMERGENCY KITS/GO BAGS FOR CHILDREN

There are varying age-specific items to include in emergency kits for children. Some items are to help keep kids entertained and distracted in times of distress, while others are to help parents take care of younger children.

General Items for All Children

☐ A few books and toys	☐ Crayons or markers and paper, scissors and glue
☐ A stuffed animal or blanket	☐ Board games, a deck of cards, puzzles
☐ Figurines and toy vehicles (e.g., fire truck) to play out what is happening	☐ Board games, a deck of cards, puzzles
☐ Portable music/video player	☐ Extra clothes and shoes
☐ Comfort food	☐ Paper with home address, phone numbers and parents' names
☐ Toothbrush and toothpaste	☐ Small first aid kit

Items for Infants

☐ Feeding supplies: formula, bottled water; clean bottles and nipples; breast pads and nipple cream; bibs, baby food and spoon	☐ Diapers, disposable wipes, diaper rash ointment, plastic bags
☐ Clothes and shoes	☐ Blankets, pacifiers
☐ Non-refrigerated medication (e.g., infant Tylenol, Advil, Benadryl)	☐ Toys
☐ Baby lotion, shampoo, soap and sunscreen	☐ Rectal thermometer and lubricant
☐ Copies of medical and immunization records	☐ Pediatrician's contact information

PETS

Locate a shelter that will accommodate your family and pets. If you can't find one, make arrangements with people outside the disaster area, kennels or veterinary offices.

If you evacuate your home, do not leave your pets behind! Pets most likely cannot survive on their own and, if by some remote chance they do, you may not be able to find them when you return.

QuickTip

Place "Pet Inside" Stickers on Your Windows: Write the number and types of pets in your home to alert first responders. Order a free Pet Safety Pack, which includes a window decal, at: **https://secure.aspca.org/take-action/order-your-pet-safety-pack**

EMERGENCY KITS FOR PETS

☐ Food and water for at least three days	☐ ID tags and medical and vaccination records
☐ Medication	☐ Litter box and litter
☐ First aid items	☐ Comfort items
☐ Muzzle, collar, leash and pet carrier	☐ Sanitary items

QuickTip

Consider packing canned food for cats and dogs. It has a higher water content than dry food, making it a great way to increase your pet's water intake, especially during stressful times.

PEOPLE WITH ACCESS AND FUNCTIONAL NEEDS

If you or someone in your family has a disability or other access or functional needs, you may need to take additional steps (e.g., arrangements to receive warnings, transportation to a shelter) to protect yourself and your family in an emergency. Find out about assistance that may be available in your community.

Remember that emergency circumstances can create a need for more support than you require on a daily basis.

- If there are people who assist you on a daily basis, list who they are and how you will contact them.
- Think of alternate types of transportation.
- If you have tools, aids or devices specific to your disability, plan how you will cope without them. For example, in an emergency you may have to use a manual wheelchair instead of a powered one.
- If you depend on life-sustaining equipment or treatment (e.g., dialysis or chemotherapy), talk to your health care provider about emergency plans and alternate actions.
- Make sure that you have enough medication and supplies to last one week (two would be better).
- In your emergency kit, include all health information rescuers should know about you: medication, equipment, allergies, communication difficulties, preferred treatments, medical providers and important contacts.

CREATE A SUPPORT NETWORK

Your family might not be together when disaster strikes, which is why you must have an extended support network. Include three people in places you spend a lot of time and someone from out of town.

- Share copies of your emergency plan.
- Make sure they know your meeting point or shelter location so they can direct rescuers to the correct location.
- Exchange important keys.
- Show them where you keep emergency supplies.
- Teach them to use your equipment and how to administer medications.
- Practice your emergency plan.
- Contact your support network every three months.

EXPRESS YOUR NEEDS

Assertive communication means stating your needs in as few words as possible. For example, "Take my wheelchair" or "I have low vision, let me hold your arm."

If you have a speech-related disability:

Keep writing materials close by and have preprinted messages in your emergency kits.

If you are deaf or hard of hearing:

Keep writing materials ready so you and others can communicate in writing.

If you have a cognitive disability:

Be ready to tell responders what your specific needs are (e.g., for them to speak slowly and use simple terms).

FAMILY COMMUNICATION PLAN

Communication is vital to your family's safety when disaster strikes. Make sure that your family's emergency plan includes instructions for communicating and reuniting in different situations.

DETAILED CONTACTS LIST

Keep a copy in your at-home emergency kit and post a copy in an accessible location. The list should include:

- The addresses, phone numbers and evacuation locations of home, work and schools.
- The name, birth date and important medical information of each family member.
- The name, phone number and email address of an out-of-town contact.
- The neighborhood meeting place and its phone number.
- The out-of-neighborhood meeting place and its phone number.
- The names, phone numbers and policy numbers (as applicable) of your doctors, pharmacists, medical/home insurance, homeowner/rental insurance and veterinarians.

Each family member should have an emergency contact card that includes the family's meeting place and contact information for each family member and your out-of-town contact.

Download and print a plan at: **www.ready.gov/publications**

SHELTERING IN PLACE

Depending on the emergency, you will have to decide whether to shelter in place or to evacuate. Your family should be prepared for both scenarios.

When local officials direct people to shelter in place, they are telling people to stay in their homes or indoors. This is not the same type of sheltering that requires you to seal the room.

While the order to shelter in place may be given for minor emergencies, it can be for a nuclear, biological or chemical event or accident when there isn't enough time to evacuate the affected area. In the latter case, families will be advised to seal the room.

QuickTip

Use common sense and monitor local media. If you're told to evacuate, do so immediately.

HOW TO SEAL THE ROOM

- Lock the doors and close windows, air vents and fireplace dampers.
- Turn off fans, air-conditioning and/or furnaces.
- Bring your emergency kit (unless it has been contaminated).
- Gather in a predetermined room (with as few windows and doors as possible).
- Close and seal the windows, doors and vents with plastic sheeting and duct tape.
- Monitor local media for instructions as they become available.

EVACUATING YOUR HOME

Some evacuation situations leave you little time to prepare, which is why you need an emergency kit and evacuation plan:

- Plan where to go and how to reunite your family. Preselect several destinations in different directions to provide options.
- Set up a safe location to meet during an emergency.

If you evacuate:

- Keep your vehicle at least half-fueled.
- Know what to do if you don't have a car.
- Make sure that you know the evacuation routes.
- Bring your emergency kit and lock your home's doors.
- Bring your pets and the supplies needed for their care.

If you have time:

- Inform your out-of-town contact where you're going.
- Shut off your home's utilities.
- Leave a note to inform others where you have gone.

UTILITIES SHUTOFF

For your safety, you should know how to safely turn off utilities such as gas, electricity and water.

- If you smell natural gas in your home, evacuate and call **911**.
- Teach your children what natural gas smells like.
- Call the utility company to turn the gas back on.
- If you had to leave your home, return only when local authorities say that it is safe to do so.

PUBLIC SHELTERS

Shelter services are a critical part of disaster operations. Emergency shelter programs provide short-term refuge as a last resort for disaster survivors. They are not intended to be used for long-term stays. When an evacuation is ordered in New Jersey, public shelters will be available to provide food and a safe place to stay. However, these shelters may not be able to meet all dietary needs. They may not be able to provide the medical care you may need. They also cannot take in pets, except Americans with Disabilities Act (ADA) assistance animals.

During a major emergency, the best place to evacuate is with the comfort of friends and family. If possible, make plans to shelter with a relative or friend who lives out-of-state in the event of a major emergency.

TYPES OF SHELTERS

Emergency Shelters

When available, emergency shelters provide immediate refuge, food, water, basic first aid and access to community services. They may be for the general population or for people who require additional support.

Medical Needs Shelters (MNS)

MNS provide a variety of medical services, ranging from extensive first aid to medical assessment and monitoring to primary care services.

MNS can also have additional personnel, equipment and space to accommodate people with access and functional needs, caregivers and equipment.

Always bring everything you need. For more information, refer to the "Access and Functional Needs" tab.

FOOD AND WATER SAFETY

FOOD SAFETY

Cleanliness and sanitation are important when preparing food. Avoid leftovers or use them within four days, but only if they've been stored at or below 40˚F.

Preparing Food

- Keep hand contact to a minimum when preparing food.
- Keep food preparation surfaces clean and avoid contact between raw and other foods.
- Use only prepared canned or bottled baby formula for infants; do not use powdered formulas with untreated water.
- Commercially canned food can be eaten without warming. If you do heat in the can, remove the label, wash and disinfect the can, and open the can before heating.
- Properly wash, rinse and sanitize utensils or use single-service utensils.
- Keep hot food at or above 140˚F and cold food at or below 40˚F.

Storing Food

To avoid attracting pests and vermin, store food four inches off the floor in a dark, dry, cool site that is well sealed.

- When refrigeration is not available, use perishable food as soon as possible.
- Discard any food that has come into contact with floodwater.
- In a power outage, look for alternative storage space.

SAFE DRINKING WATER

After an emergency, especially flooding, drinking water may not be available or safe to drink. Do not use water that may be contaminated to wash dishes, brush your teeth, wash and prepare food, make ice or make baby formula.

Making Water Safe to Use

Treat water of uncertain quality before using it. Before treating, let any suspended particles settle to the bottom or strain them through coffee filters or layers of clean cloth. There are three methods:

METHODS	KILLS MICROBES	REMOVES OTHER CONTAMINANTS
Boiling	✓	✗
Chlorination	✓	✗
Distillation	✓	✓

PUBLIC HEALTH THREATS

PANDEMICS

A pandemic is caused by a completely new virus that causes a global outbreak. When a new virus emerges, and people have little or no immunity and vaccines are unavailable, the virus may spread so rapidly that the impact is severe.

What could happen during a pandemic?

- Medical resources, food and everyday items can become scarce.
- There may be a disruption of service such as the closing of:
  - Public transportation, restaurants, office buildings, shopping malls/stores, day cares and schools. As well as the cancelation of mass gatherings.
- There may be a severe impact on the economy.
- You may be asked to isolate or self-quarantine as well as social distance yourself from others to prevent virus spread.

Listen to public health officials to determine what actions you need to take.

Isolation and Quarantine

Isolation and quarantine help protect the public by preventing exposure to people who have or may have a contagious disease.

- **Isolation** separates sick people with a contagious disease from people who are not sick.
- **Quarantine** separates and restricts the movement of people who were exposed to a contagious disease to see if they become sick.

DISEASES: INFECTIOUS OR CONTAGIOUS?

Infectious diseases are caused by harmful microorganisms invading the body and attacking organs or cells. These microorganisms (also called pathogens) include viruses, mold and bacteria. Infectious diseases can be contagious or they can spread by germs in air, water, food and soil, or by insect and animal bites (vector-borne). Not all infectious diseases are contagious. Examples of infectious diseases include flu, coronaviruses, measles and Ebola.

Infectious Diseases

How do infectious diseases spread?

Infectious diseases, such as the flu, coronaviruses and Zika, are spread by either direct or indirect transmission.

Indirect Transmission

Indirect transmission refers to the transfer of infectious agents by:

- Airborne particles (dust, droplet nuclei).
- Inanimate objects (food, water).
- Vectors (mosquitoes, fleas, ticks).

For example, malaria and West Nile virus are transmitted indirectly through mosquitoes.

Direct Transmission

Direct transmission refers to the transfer of infectious agents by direct contact with the source of infection or droplet spread. Droplet spread is the spray of short-range aerosols produced by sneezing, coughing or even talking.

Influenza and coronavirus disease 2019 (COVID-19) are spread directly through respiratory droplets.

Infectious Disease Prevention

Practicing proper hygiene and taking measures to avoid bug bites are the best ways to prevent the spread of infectious diseases.

STOP THE SPREAD

Avoid close contact.

- Avoid close contact with people who are sick.
- When you are sick, keep your distance from others to protect them from getting sick, too.

Stay home when you are sick.

- If possible, stay home from work, school and running errands when you are sick.

Cover your mouth and nose.

- Cover your mouth and nose with a tissue when you cough or sneeze.
- If you don't have a tissue, cough or sneeze into your inner elbow, not your hands.
- Put used tissues in the trash.

Clean your hands.

- Wash your hands often, and after you cough or sneeze. Use soap and warm water (for at least 20 seconds) or an alcohol-based hand sanitizer.
- Thoroughly scrub hands, wrists, fingernails and in between fingers. Rinse and dry hands with paper towels or a clean towel.

BIOTERRORISM

Bioterrorism is the deliberate release of biological agents (viruses, bacteria or other germs) to cause illness or death in people, animals or plants. Naturally occurring biological agents can be spread in the air, in water or in food. They can be modified to make their harmful effects stronger, to make them resistant to current treatments or to make them easier to spread into the environment.

Terrorists may use biological agents because they are easily transported, can be extremely difficult to detect and do not cause illness for several hours to several days.

Biological Agents

Infectious Diseases: Infectious diseases are caused by the invasion of the body by harmful microorganisms. These microorganisms multiply and make the person sick by attacking organs or cells in the body. They include viruses and bacteria, as well as certain other microscopic organisms, and are sometimes called pathogens.

Contagious Diseases: A contagious disease is an infectious disease that can be "caught" by a person who comes into contact with someone who is infected. Not all infectious diseases are contagious. Exposure to a contagious disease usually happens through contact with the infected person's bodily fluids or secretions, such as a sneeze.

Toxins: Toxins are the poisonous, usually protein-based substances produced by microorganisms (bacteria, molds, viruses) in certain infectious diseases. Microorganisms use these toxins as the specific weapons for attacking organs or cells in the body. Although toxins are usually classified as being biologically produced, common language often refers to the poisons created by nonliving chemical agents as chemical toxins.

BIOLOGICAL AGENTS QUICK REFERENCE CHART

Agent*	Description	Symptoms	Medical Response
Anthrax	▪ Skin, intestinal or inhalational infection that is caused by bacteria ▪ Signs and symptoms beginning within 7 days ▪ Not contagious	▪ Skin: blisters with black centers ▪ Intestinal: nausea, loss of appetite, stomach pain ▪ Inhalational: cold-like signs and symptoms that progress to severe breathing problems	▪ Antibiotics necessary as soon as possible
Botulism	▪ Muscle-paralyzing disease caused by exposure to a bacterial toxin ▪ Could be released in air, water or food ▪ Not contagious	▪ Blurred/double vision ▪ Slurred speech ▪ Drooping eyelids ▪ Can lead to paralysis	▪ Antitoxin ▪ Supportive care ▪ Ventilator
Pneumonic plague	▪ Lung infection caused by bacteria ▪ Could be released into the air ▪ Signs and symptoms generally beginning 2-4 days after exposure ▪ Contagious through coughing	▪ Rapidly developing pneumonia with fever ▪ Cough ▪ Chills	▪ Antibiotics necessary within 24 hours of signs and symptoms ▪ Isolation for infected people

* The following agents are classified as Category A (highest concern) by the Centers for Disease Control and Prevention (CDC).

Agent*	Description	Symptoms	Medical Response
Smallpox	▪ Severe illness with rash caused by a virus ▪ Officially eradicated worldwide in 1980, but has resurfaced as a potential bioterrorism agent ▪ Signs and symptoms beginning 7-17 days after exposure ▪ Contagious	▪ High fever and aches followed by a severe rash of round lesions	▪ Vaccines generally given within 3 days of exposure to prevent infection or lessen illness ▪ Isolation for infected people
Tularemia	▪ Disease caused by bacteria, which could be released in air, food or water ▪ Signs and symptoms generally beginning 3-5 days after exposure ▪ Not contagious	▪ Sudden fever ▪ Chills ▪ Coughing ▪ Aches	▪ Antibiotics
Viral hemorrhagic fevers	▪ Diseases contracted from viruses such as Ebola ▪ Could be transmitted via bodily fluids of infected animals or humans ▪ Contagious	▪ Fever ▪ Weakness ▪ Aches ▪ Heavy bleeding	▪ Isolation for infected people ▪ Supportive care

* The following agents are classified as Category A (highest concern) by CDC.

ANTHRAX PREVENTION

Antibiotics can prevent anthrax from developing in people who have been exposed but have not developed symptoms. Ciprofloxacin (Cipro) and doxycycline (Doxy) are two of the antibiotics that could be used to prevent anthrax.

Each of these antibiotics offers the same protection against anthrax. Anthrax spores typically take 1 to 6 days to be activated, but some spores can remain inside the body and take up to 60 days or more before they are activated. Activated spores release toxins (or poisons) that attack the body, causing the person to become sick. That's why people who have been exposed to anthrax must take antibiotics for 60 days. This will protect them from any anthrax spores in their body when the spores are activated.

If an agent such as anthrax is released into the environment, points of dispensing (PODs) would be activated in response to the anthrax release. At that time, you will need to complete a screening form to get medication at a POD. Taking recommended antibiotics is the only effective way to prevent one from becoming sick from the bacteria. Two antibiotics that will most likely be distributed are Doxy or Cipro. It is important to ask your primary care provider now if you have any allergies to Doxy or Cipro. If you do have allergies to these antibiotics, write which of these antibiotics you can take:

- ☐ Cipro
- ☐ Doxy
- ☐ Able to take both

Alternative antibiotic that is best for you:

_____

VECTOR-BORNE DISEASES

Vector-borne diseases are a subcategory of zoonotic viral diseases. Vectors are mosquitoes, ticks and fleas that spread pathogens. A person bitten by a vector who gets sick has a vector-borne disease.

QuickAlert

Illnesses from mosquito, tick and flea bites have tripled in the U.S., with more than 640,000 cases reported in 13 years from 2004 to 2016. Nine new germs spread by mosquitoes and ticks were discovered or introduced into the U.S. during this time.

Chikungunya Virus

Chikungunya virus is transmitted to people by the bite of an infected mosquito. Mosquitoes become infected when they bite a person infected with chikungunya virus.

West Nile Virus

West Nile virus (WNV) is most commonly transmitted to humans by the bite of an infected mosquito. Mosquitoes become infected when they feed on infected birds. Infected mosquitoes can then spread the virus to humans and other animals.

Zika Virus

Zika virus is spread to people primarily through the bite of an infected *Aedes* species mosquito. Zika can also be transmitted person to person through unprotected sex.

At this time, the risk of local transmission in the U.S. is considered low. Locally transmitted cases in the U.S. have been reported. However, the majority of American Zika virus cases have been travel-related.

MOSQUITO BITE PREVENTION TECHNIQUES

The following are guidelines for protecting yourself and your family from mosquito bites:

Treat clothing and gear.

- Treat items such as boots, pants, socks and tents with permethrin (follow the product instructions) or purchase permethrin-treated clothing and gear.
- Do not use permethrin products directly on skin.
- Permethrin-treated clothing will protect you after multiple washings.
- See product information to find out how long the protection will last.

Mosquito-proof your home.

- Use screens on windows and doors. Repair holes in screens.
- Use air-conditioning when available.
- To keep mosquitoes from laying eggs in and near standing water, once a week, empty and scrub, turn over, cover or throw out items that hold water, such as tires, buckets, planters, toys, pools, birdbaths, flowerpots or trash containers. Check inside and outside your home.

Use bed nets.

- Bed nets are one of the most effective means of mosquito bite prevention in tropical and subtropical countries.

OUTBREAK CONTROL

VACCINATION

One method public health officials may use to control an outbreak is vaccination. Vaccines cause the body to produce antibodies, which protect against later infection by a particular agent. However, vaccines are not available for many diseases, and not all vaccines work the same way. For example, the smallpox vaccine provides almost immediate immunity and can be beneficial even if someone is vaccinated a few days after exposure. Other vaccines (e.g., the anthrax vaccine) may require a number of doses over time before the recipient builds immunity.

It is possible in a widespread outbreak that public health officials may use a mass vaccination approach to protect people in affected areas. Public health officials will provide information on what you should do if a vaccine program is needed in your community.

QuickNote

Vaccines help prevent the spread of disease.

TESTING

Testing sites may be utilized to determine the how and where a disease is spreading. Without testing there is no way of understanding the pandemic. Testing is one of the most important tools in the fight to slow and reduce the spread and impact of disease. Tests allow us to identify infected individuals and guide the medical treatment they receive. It enables the isolation of those infected and the tracing and quarantining of their contacts. It can also help allocate medical resources and staff more efficiently.

In addition, testing informs our understanding of the pandemic and risks it poses in different populations.

COMMUNITY-BASED MASS PROPHYLAXIS

Dispensing of antibiotics and/or vaccines is a cornerstone of any mass prophylaxis campaign against outbreaks of preventable disease.

Dispensing Operations and the Role of Dispensing/Vaccination Centers

In local and national planning documents, these centers have been given a variety of names and acronyms. In this guide, we use the term "point of dispensing" (POD).

A POD is a single dispensing site that can be free-standing or located in a pre-existing building, such as a school. **Any mass prophylaxis plan involving the use of PODs must have at least these two components:**

- A description of the command, operational and logistical requirements for the deployment and operation of a single POD
- A description of the command, operational and logistical requirements for a scalable response involving multiple PODs

Factors such as the size and nature of the release of disease-causing agents and the availability of local and Federal resources and personnel will determine whether the initial response consists of the establishment of one, several or dozens of PODs.

QuickNote

NJ LINCS: The Health Alert Network (HAN) is a collaboration between CDC, local and state health agencies. It allows for the sharing of information between state, local and Federal health agencies as well as hospitals, laboratories and community health providers. The network shares information routinely, but during an event, HAN provides early warnings by email to alert officials at all levels about urgent health threats and appropriate actions. There is a LINCS agency in every NJ county. Visit: **www.njlincs.net**

SEASONAL FLU

Seasonal flu is a term for the flu that goes around every year, usually in the fall and winter. The virus that causes it is similar to – or the same as – recent flu viruses. But flu viruses can also change from year to year. This is why getting a yearly seasonal flu vaccine is so important – it also changes from year to year to help protect you.

SEASONAL FLU VS. PANDEMIC FLU

SEASONAL FLU	PANDEMIC FLU
Outbreaks follow predictable seasonal patterns; occurs annually, usually in winter, in temperate climates.	Occurs rarely (four times since 1918).
Usually some immunity built up from previous exposure.	No previous exposure; little or no pre-existing immunity.
Healthy adults usually not at risk for serious complications; the very young, the elderly and those with certain underlying health conditions at increased risk for serious complications.	Healthy people may be at increased risk for serious complications.
Health systems can usually meet public and patient needs.	Health systems may be overwhelmed.
Vaccine developed based on known flu strains and available for annual flu season.	Vaccine probably would not be available in the early stages of a pandemic.

Continued on next page.

SEASONAL FLU VS. PANDEMIC FLU

SEASONAL FLU	PANDEMIC FLU
Adequate supplies of antivirals are usually available.	Effective antivirals may be in limited supply.
Average U.S. deaths approximately 36,000/yr.	Number of deaths could be quite high (e.g., U.S. 1918 death toll approximately 675,000).
Symptoms: fever, cough, runny nose, muscle pain. Deaths often caused by complications, such as pneumonia.	Symptoms may be more severe and complications more frequent.
Generally causes modest impact on society (e.g., some school closings, encouragement of people who are sick to stay home).	May cause major impact on society (e.g., widespread restrictions on travel, closings of schools and businesses, cancellation of large public gatherings).
Manageable impact on domestic and world economy.	Potential for severe impact on domestic and world economy.

The flu (influenza) is serious business!

It can lead to a number of complications, including pneumonia, bronchitis and serious infections. Many Americans die each year from pneumonia and other health problems caused by the flu.

The flu is spread by a virus.

The virus usually spreads from person to person through coughs and sneezes. Even if you're not in a high-risk group, the flu can make you feel ill for several days. Practicing proper hygiene tips is important for staying healthy.

Good hygiene helps prevent the flu.

Hand hygiene is one of the best things you can do to stop the spread of the flu and other communicable diseases.

Wash your hands:

- After coughing, sneezing or blowing your nose.
- After using the bathroom or changing diapers.
- Before and after preparing and eating food.
- After touching an animal or its waste.
- After handling garbage or doing yardwork.
- When caring for someone who is hurt or sick.
- When they're visibly dirty.

Keep an alcohol-based hand sanitizer nearby.

Use it when soap and water aren't available. Make sure it contains at least 60% alcohol.

Wash your hands properly.

1. Wet hands with clean, running water. If possible, use warm water.
2. Lather both hands with soap.
3. Scrub all surfaces of hands for 20 seconds, including between fingers and under nails.
4. Rinse hands well with running water.
5. Dry hands with a paper towel or an air dryer.
6. If possible, use your paper towel to turn off the faucet.

Protect others from your coughs and sneezes. If you're about to cough or sneeze:

- Move away from others. Try to be at least 6 feet away.
- Cover your mouth and nose. Use a tissue or your upper sleeve. Do not use your hands. Then throw the tissue away.
- Wash your hands afterward.

Take precautions around the home.

- Keep surfaces clean. Pay special attention to things that people touch a lot, such as door handles, kitchen and bathroom surfaces, desks, phones, keyboards and tables.
- Don't share personal items, such as cups, straws, utensils, toothbrushes or towels. Properly clean and wash personal items before using them.

Get the flu vaccine every year.

The vaccine is recommended for everyone 6 months of age or older. The vaccine is especially important for people who are at higher risk for complications, such as adults age 50 and older, children younger than 5 years old, people with chronic conditions such as diabetes or asthma, and pregnant women.

CHEMICAL EMERGENCIES

A chemical emergency occurs when a hazardous chemical release has the potential to harm people's health. Chemical releases can be unintentional or intentional.

WHAT TO DO DURING A CHEMICAL EMERGENCY

- If you are near the affected area, protect yourself and your loved ones by staying home or staying put. Wait for instructions from officials.
- If you are not near the affected area, stay where you are and avoid unnecessary travel until further notice.

If You Are Near the Release of a Chemical

You may be asked to leave the area or to take shelter:

- Go to the highest level of the building. Find a room with as few windows and doors as possible.
- Reduce air flow from outside to inside. Close vents, air-conditioning, fireplace dampers and anything else that exposes the room to outside air.
- Seal the room. Use plastic and duct tape to close all openings, including windows, doors, vents and electrical outlets.
- Eat only sealed, stored food and water. Do not eat or drink anything that may have been exposed.
- Turn to the radio, TV or Internet for updated health and safety announcements that will inform you when it is safe to go outside.

TYPES OF CHEMICAL AGENTS

- Blister agents
- Blood agents
- Nerve agents
- Choking agents

CHEMICAL AGENTS QUICK REFERENCE CHART

Agent	Description	Symptoms	Medical Response
Blister agents (e.g., mustard gas, lewisite)	▪ Group of agents that cause blistering or burns on the skin or lungs ▪ Could be transmitted by inhaling or contact with skin or eyes	▪ Skin and eye burning ▪ Coughing ▪ Severe respiratory irritation	▪ Mustard gas: supportive care; treatment for blisters as burns ▪ Lewisite: same treatment; antidote available
Blood agents (e.g., cyanide, arsine)	▪ Group of agents depriving cells and tissues of oxygen ▪ Could be released in air, water or food	▪ Rapid breathing ▪ Nausea ▪ Convulsions ▪ Loss of consciousness	▪ Cyanide: antidote ▪ Arsine: supportive care; blood transfusions and intravenous fluids may be needed
Choking agents (e.g., chlorine, phosgene)	▪ Group of agents attacking the respiratory system ▪ Most likely to be released in air	▪ Coughing ▪ Burning eyes or throat ▪ Blurred vision ▪ Nausea ▪ Fluid in lungs ▪ Difficulty breathing	▪ Monitoring for delayed signs and symptoms ▪ Supportive care (e.g., oxygen as needed)
Nerve agents (e.g., sarin, soman, tabun, VX)	▪ Group of agents that affect the nervous system ▪ Released in air, water or food	▪ Seizures, drooling, eye irritation, sweating or twitching, blurred vision, muscle weakness	▪ Antidote ▪ Supportive care (e.g., oxygen as needed)

IF YOU HAVE SYMPTOMS OR HAVE HAD CONTACT WITH A CHEMICAL

Do not touch other people (to prevent getting the chemical on them).

Discard clothing that may have been contaminated.

Do not remove clothes by pulling them over your head. If necessary, cut clothes off.

If possible, put clothes inside a bag and seal it. Put the sealed bag into another bag and seal that too.

Immediately wash your hair and body thoroughly with soap and warm water.

If your eyes are burning or irritated, flush them with clear water for at least 15 minutes.

Call your doctor or local public health department. They will tell you how and where to get more help.

RADIATION EMERGENCIES

The amount of radiation from natural or man-made sources that people are routinely exposed to is usually small. However, a radiation emergency (such as a nuclear power plant accident or a terrorist event) could expose people to larger doses of radiation.

RADIATION CONTAMINATION VERSUS EXPOSURE

External Contamination

External contamination occurs when radioactive material comes into contact with a person's skin, hair or clothing.

Radioactive material can be in the air, solid or liquid.

WHERE TO GO IN A RADIATION EMERGENCY

If a radiation emergency happens in your area, you should get inside immediately. No matter where you are, the safest action to take is to:

1. Get inside.
2. Stay inside.
3. Stay tuned.

Radiation can affect the body in a number of ways, and the adverse health effects of exposure may not be apparent for many years. These can range from mild effects, such as skin reddening, to serious effects such as cancer and death. This depends on the amount of radiation absorbed by the body (the dose), the type of radiation and for how long the person was exposed. In large doses, radiation can cause acute illness or skin burns, or jeopardize a developing fetus.

POWER OUTAGES

- To prevent carbon monoxide poisoning, use generators, pressure washers, grills and similar items outdoors only.
- Generators should be used at least 20 feet away from your home.
- Identify and throw away food that may not be safe to eat.
- Check with local authorities to be sure your water is safe.
- In hot weather, stay cool and drink plenty of fluids to prevent heat-related illness.
- In cold weather, wear layers of clothing, which help to keep in body heat.
- Avoid downed power lines, if a power line falls on a car, you should stay inside the vehicle.
- To prepare, make an emergency plan that includes a disaster supply kit. This kit should include enough water, dried and canned food, and emergency supplies (flashlights, batteries, first-aid supplies, prescription medicines and a digital thermometer) to last at least three days. Use battery-powered flashlights and lanterns, rather than candles, gas lanterns or torches (to minimize the risk of fire).

EXTREME HEAT & COLD

Heat

Be aware of your and others' risk for heat stroke, heat exhaustion, heat cramps and fainting. Heat stroke is the most serious heat illness. It happens when the body can't control its own temperature. Sweating fails and the body cannot cool down. Body temperature may rise to 106°F or higher within 10 to 15 minutes. Heat stroke can cause death or permanent disability if emergency care is not given.

Cold

Hypothermia happens when a person's core body temperature is lower than 35°C (95°F). If a person's temperature is below 95°F, get medical attention immediately.

RESOURCES

American Red Cross
www.redcross.org

American Society for the Prevention of Cruelty to Animals (ASPCA)
www.aspca.org/pet-care/general-pet-care/disaster-preparedness

Centers for Disease Control and Prevention's (CDC) Emergency Preparedness & Response
www.emergency.cdc.gov

DisasterAssistance.gov
www.disasterassistance.gov

Federal Emergency Management Agency (FEMA)
www.fema.gov

New Jersey Department of Health (NJDOH)
www.nj.gov/health

New Jersey Poison Information and Education System (NJPIES)
www.njpies.org | Call: 800-222-1222

Ready.gov
www.ready.gov

Substance Abuse and Mental Health Services Administration (SAMHSA)
www.samhsa.gov/_nd-help/disaster-distress-helpline
Call: 800-985-5990

NJ Medical Reserve Corps (NJMRC)
www.nj.gov/health/lh/njmrc

IMPORTANT INFORMATION

Keep your personal information in one place for easy access.

Emergency contacts: _____

Phone: _____

Email: _____

Neighborhood meeting place:

_____

Medications and doses for each family member:

_____

_____

Other important information:

_____

_____

PUBLIC HEALTH EMERGENCY PREPAREDNESS GUIDE

Help your family prepare for a public health emergency, natural disaster or bioterrorism event. This guide will help you build an emergency kit; plan how to care for children, the elderly, people with access and functional needs and pets; and learn what to do in specific emergency situations.

- Emergency kits
- Evacuation plans
- Pandemic outbreak control
- Communicable/infectious diseases
- Biological, chemical and radiation emergencies

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