

# Emergency Planning & Disaster Recovery in the Dental Office

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### THE COUNCIL ON DENTAL PRACTICE

The mission of the Council on Dental Practice is to recommend policies and provide resources to empower our members to continue development of the dental practice, and to enhance their personal and professional lives for the betterment of the dental team and the patients they serve.

This publication was developed to assist dentists in emergency planning and disaster recovery preceding and following a natural or man-made catastrophe. It is not intended to cover every situation or offer complete advice. None of the information is to be construed as legal advice, a legal standard, or Association policy that can serve as a substitute for a dentist's own professional judgment or consultation with a personal attorney or other professional advisor.

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# Introduction

Dentists and staff members may need to act in a natural or man-made emergency in order to help safeguard themselves or their patients. Emergencies can result from mudslides, earthquakes, fires, hurricanes, avalanche, floods and tornadoes or from non-natural incidents involving transportation accidents, bioterrorist attack, power failure, gas leak, structural collapse, detonated bombs, chemical spills, radiation release from a nuclear power station or from bodily harm and trauma caused by workplace violence. A rapid business recovery from a disaster or emergency situation could depend on how current and extensive is the advanced emergency-disaster planning or on how closely that plan can be followed. Some of the information in this publication was supplied by "FEMA," the Federal Emergency Management Agency of the U.S. Government, The National Safety Council and other reliable sources.

This publication does not purport to cover every emergency contingency or provide details about what you should do in each situation that is presented. Dentists are encouraged to perform a hazard audit of their practice. They should at least annually review their written safety and emergency procedures, if required to keep them. Keep in mind and plan for the kinds of mishaps that are most likely to involve your own dental practice. Additional information about preparing for different kinds of emergencies is available from many reliable sources and online from most federal or state agencies, and in the **Resources** section of this publication. Your local library might be able to help you find publications and government documents concerning disaster preparedness and business recovery. The local or national office of the Red Cross, and The National Safety Council are yet other sources of disaster preparedness information.

Disaster contingency planning generally requires defining the scope of the plan, that is, what kind(s) of disaster are to be addressed in the plan. You may wish to address in your planning, What is the worst case scenario? How can a dental practice in a disaster reasonably protect (due diligence) the patient treatment information in its custody? And, What kinds of resources will be available to enhance recovery? Realistic answers to these and many other questions could greatly aid disaster recovery planning. This publication contains useful information and tips to help a dentist plan for emergency situations, then recover quickly from a disaster situation that is either natural in origin or man-made. A quicker recovery might help reduce stress, conserve revenue and better ensure survival of the practice. In many cases, without good planning a survivable disaster that closes down a practice, closes too many of them permanently.

## *How to use this publication*

The dentist and staff can use this publication as a guide to learning more about emergency planning & disaster recovery, and as a guide for creating their own Emergency Action Plan. Such a plan, once finished, could be useful as the basis for policies about emergency situations and for conducting training.

## **Chapter 1: Written Emergency Plan**

- **Elements of an Emergency Action Plan**

“OSHA specifically requires employers with 11 or more employees to have a written *Emergency Action Plan* for individuals involved in providing fire prevention, emergency medical or evaluation assistance.”

# Elements of a Written Emergency Plan

The Occupational Safety & Health Administration ("OSHA") is a federal agency that was created by Congress in 1970 to protect workers from hazards in the workplace. OSHA specifically requires employers with 11 or more employees to have a written *Emergency Action Plan* for individuals involved in providing fire prevention, emergency medical or evaluation assistance. The written Emergency Action Plan according to OSHA should include (OSHA 1910 Subpart L, Fire Protection)

- Alarm system that is audible within the work environment
- Escape procedures and routes
- Procedures to account for all employees when evacuation is complete
- Rescue and medical duties of employees who perform them
- How to report fires and other emergencies
- Who to contact for more information.

In addition, OSHA specifically has the following requirements with regard to exits. (OSHA 1910 Subpart E, Means of Egress)

- Exits are to be unobstructed.
- No lock is installed that would prevent free escape from the building. Exits that go through rooms that lock are not permitted.
- Exits are marked with a readily visible exit sign
- Exit signs display the word "EXIT" in lettering at least 6 inches high and 3/4 inch wide
- Exit signs are illuminated by a reliable light source
- Directions to exits are marked, if the direction is not readily apparent

(There may of course, be additional regulatory requirements in the form of local building codes or zoning ordinances. For more information about those kinds of requirements, you may need to check with local building inspectors, and with the fire or police department.)

New employees should be familiarized initially with the plan or when the duties under the plan change and whenever the plan changes. A written Emergency Action Plan should document all training and review sessions, but that is not required. Drills and interactive training using questions about the plan are ways of teaching employees about their responsibilities and what to do in actual emergencies. After initial training, you should conduct periodic retraining. Remember to check the functioning of emergency equipment according to a schedule.

The American Dental Association through its salable materials department sells the *Regulatory Compliance Manual*, item # S689. This item is a comprehensive compliance manual with OSHA regulations that is intended to assist dentists in matters pertaining to bloodborne pathogens, hazard communication, MSDS (Material Safety Data Sheet), CDC recommendations, medical waste handling and tracking, ergonomics, backflow prevention and other regulatory matters. The manual may be ordered by calling 1-800-947-4746 or <http://www.adacatalog.org>

# Medical Emergencies and First Aid

In the case of a medical emergency in the office, employees should notify the dentist immediately. A designated staff member should call the paramedics, if directed. Until trained medical personnel arrive, staff should do what is necessary to make the sick or injured person comfortable. If needed, a certified person should administer cardiopulmonary resuscitation ("CPR") or first aid. A recommendation is that at least one full-time employee besides the dentist receives training in first aid and CPR. Emergencies can include accidental or willful bodily injury, central nervous system stimulation and depression, respiratory and circulatory disturbances, as well as allergic reactions.

In a medical emergency, be prepared to take the vital signs of blood pressure, pulse, respiratory rate and temperature. Such information could be valuable in reporting the status of the injured person. The dentist should administer basic life support and maintain an open airway while providing, if necessary, oxygen using a device for its delivery under positive pressure. In other instances, an external cardiac compression might be necessary ("Heimlich maneuver"). Dentists, through continuing education, should become familiar with the prevention, diagnosis, and treatment of common emergencies that they might encounter during routine care with some individuals.

In addition, they should provide appropriate training to their staff so that in these situations each staff person knows their responsibility and can act promptly.

*Emergency kit* In some practices, the dentist may chose to have an emergency kit on hand. A medical emergency kit could be useful in a patient, staff or visitor medical crisis; or following a natural or man-made disaster. However, during a medical emergency with a patient, general dentists who are providing routine care are usually only required to provide basic life support while waiting for emergency crews to arrive. A practice that chooses to have an emergency kit with prescription drugs in it needs to be sure that the drugs 1) have not expired (date) ; 2) were stored appropriately; 3) usage is within the training of the dentist; and 4) usage is correct for typical situations facing the dentist. Dentists should check with a competent legal advisor, their personal professional liability insurance carrier or with their state dental association for information about specific state requirements and recommendations that may apply.

Usually, in a medical emergency involving a patient, the chairside assistants will get the emergency kit and remain with the dentist and patient. The front desk staff person normally has the responsibility to call, if necessary, for an emergency vehicle and paramedics. Of course the actual assignment of staff responsibilities during an emergency in particular practices could differ depending on the preference of the dentist.

In any case, the employees who are expected to administer CPR as part of their job duties should have appropriate training using ventilation devices located where they can be quickly retrieved. The American Red Cross offers training in basic first aid and in CPR. To learn more about how you or your staff might receive training, call the nearest Red Cross chapter.

In a disaster prone area an emergency kit might be useful when needed. The following list of non-drug items is recommended for a typical emergency kit:

- Sterile adhesive bandages in assorted sizes
- Assorted sizes of safety pins

- Cleansing agent/soap
- Latex gloves (2 pairs)
- 2-inch sterile gauze pads(4-6)
- 4-inch sterile gauze pads (4-6)
- Triangular bandages (3)
- 2-inch sterile roller bandages (3 rolls)
- 3-inch sterile roller bandages (3 rolls)
- Scissors
- Tweezers
- Suture
- Paper towelettes
- Antiseptic
- Thermometer
- Tongue blades (2)
- Tube of petroleum jelly or other lubricant

Consider adding a battery-operated radio and flashlight to the kit in case there is a power failure. Similarly, having a cellular telephone available could come in handy if there is trouble with surface telephone lines during an emergency. Test all batteries monthly or in accordance with recommendations from the manufacturer.

#### Non-prescription drugs for your Emergency Medical Kit

- Aspirin or nonaspirin pain reliever
- Anti-diarrhea medication
- Antacid (for stomach upset)
- Syrup of Ipecac (use to induce vomiting if advised by the Poison Control Center)
- Laxative
- Activated charcoal (use if advised by the Poison Control Center)

Contact your local American Red Cross chapter to obtain a basic first aid manual.

#### *To report an emergency*

- call the emergency number for your area
- calmly explain the nature of the emergency
- give the location (provide directions, if necessary)
- supply the name, age of the victims
- give your own name, address & telephone number (optional, but useful to investigators)



# Fire Safety

In some regions of the country, severe storms or extremes of weather can cause great damage. At other times, or in different regions floods or mudslides could be the problem, however the threat of fire occurs all of the time, everywhere.

According to the United States Fire Administration ("USFA") of FEMA, fires kill more Americans than all other natural disasters combined. Property damage annually is estimated at \$9 billion. Each year over 5,000 people die and 25,000 are injured. It can take only minutes for a small fire to engulf a room and fill it with smoke. The fire prevention portion of a dentist's Emergency Action Plan should list major workplace fire hazards, how to prevent them and who in the office is responsible for fire prevention.

The dentist should name and train an employee to act as the first line of defense in an emergency. The employee's training should emphasize however, the limitation on nonprofessional intervention and when they should seek help from fire fighters or emergency response units. If an employee is expected to use fire extinguishers, then he/she should be trained in their use and have ready access to them. Wall mounted extinguishers make locating an extinguisher easier when they are needed. Extinguishers should be operational at all times, inspected visually once a month and tested annually.

The following are typical duties that might be assigned to a emergency response staff member in a dental practice:

- Use of various types of fire extinguishers
- First aid, including cardiopulmonary resuscitation ("CPR")
- Shutdown procedures
- Evacuation procedures
- Chemical spill control procedures
- Search and emergency rescue procedures
- Incipient fire fighting

In an emergency, there should be adequate numbers of exit doors that are sensibly located and which could aid in quick evacuation from the building. Exit doors should be unobstructed and clearly marked. Doors that do not lead out of the dental suite or from the building should appropriately be labeled "restroom," " private office" or "closet," etc. to prevent confusion. Written escape procedures and routes are required in emergency plans.

The automatic sprinkler system, fire detection and alarm system or fire door should be in proper operating condition. Smoke detector batteries should be checked for working condition once a month and changed each year. Install a replacement smoke detector every ten years or as often as recommended by the manufacturer.

During a fire, it may be unwise to open a door that is hot to the touch. Even if cool to the touch, open a door carefully and only a few inches at first. Brace your shoulder firmly against the door, then slowly open the door. If heat and smoke pour through the partially opened door, be prepared to quickly shut the door. Use an alternate route of escape. Keep low and crawl if necessary, as smoke rises and the air is probably better down low.

To safeguard paper documents and patient records, it is recommended by fire safety experts that a dentist-employer utilize fire resistant file cases with at least a four-hour fire rating.

*After a fire* Do not use electrical equipment that has been close to fire or water before having them checked. They could malfunction.

The soot on equipment, countertops and walls is what's left from incomplete combustion. Soot can be complex in nature depending on the composition of the items that were exhausted in the fire. In most cases following a fire, this black residue settles on surfaces and penetrates equipment and files. Following the disaster, if you are allowed into the fire-damaged practice, you should avoid touching smoke-damaged surfaces with the bare hand as the residue could be corrosive and toxic.

## **Building Safety**

Exits from the building should remain unobstructed, easily unlocked and clearly marked. The building's owner/dentist or a designated dental staff person should assume the responsibility for keeping the fire detection and alarm systems, and the fire extinguishers in proper working order.

Obstructions such as file cabinets or boxes of supplies piled high that could prevent easy egress from the dental suite might cause tragic delays during an evacuation, particularly if the office is plunged into darkness by a power failure or if dense smoke from a fire develops. Store supplies properly. Don't block doors, stairs or hallways with boxes of dental supplies. An orderly appearance that keeps pathways open might be more than just esthetically pleasing to patients, it could save their lives and your own if a quick escape is necessary or when an alternate route must be used in an emergency.

State, local and federal legislation in the form of building codes usually directs the placement, materials, design and components of buildings, both public and private, including within dental buildings. These codes generally have control over both planned structures and those undergoing renovation or refurbishing. And while one of the most important tools for mitigating structural damage from fire, or from an earthquake are these building codes, this publication does not attempt to address building codes, which in fact, vary widely across the country. New construction and extensive refurbishing projects may also need to comply with the Americans with Disabilities Act. Check with your licensed architect, contractor or personal attorney for more details on how to be in compliance with local, state or federal laws and regulations.

## **Evacuation**

If a fire breaks out in the dental suite or elsewhere in the building, immediately notify the fire department. In a large building that has an attended lobby, also notify the security guard, if possible, or pull the fire alarm located next to the stairway. Whenever the alarm sounds for an emergency evacuation, all employees, visitors and patients should exit quickly using the stairs according to the building's emergency evacuation plan. A dental practice that is located in a large building should coordinate its planned evacuation procedures with those of the building's management. In an emergency, do not use the elevators as they might be out-of-service due to a failure or purposely landed for exclusive use by firefighters. Do not return to the area of the fire to retrieve personal belongings or try to fight a large fire yourself.

Visitors and patients who are unfamiliar with escape routes may need guidance in order to evacuate. Disabled persons, children, the elderly and patients in wheelchairs or on crutches may particularly need assistance.

Once all of the staff, visitors and patients have vacated the building, they should gather at a pre-determined location. Notify firefighters on the scene about the presence and location of any compressed gas cylinders or large cache of hazardous chemicals that might be inside the dental suite. In a fire these items could accelerate the flames or have explosive potential that could seriously injure firefighters or building tenants as they attempt to escape.

## **Chapter 2: Material Safety Data Sheets ("MSDS")**

“An employer, says OSHA, has a responsibility to inform employees (Hazard Communication) about the dangers of any hazardous chemicals in the workplace and a further obligation to train workers in the safe handling of those chemicals.”

## Material Safety Data Sheets (“MSDS”)

In an emergency involving a hazardous chemical in the office, an employer (including dentists) according to OSHA, must be able to supply medical personnel with a copy of the Material Safety Data Sheet. An MSDS is a detailed information bulletin prepared by the manufacturer or supplier of any product that contains a chemical deemed to be hazardous. A dentist should receive a MSDS the first time a product is purchased that contains the chemical. The MSDS describes the physical and chemical properties of the chemical, the physical (e.g., the potential for explosion) and health hazards, routes of exposure, precautions for safe handling and use, emergency and first aid measures, spill and leak procedures, and control measures.

An employer, says OSHA, has a responsibility to inform employees (Hazard Communication ) about the dangers of any hazardous chemicals in the workplace and a further obligation to train workers in the safe handling of those chemicals. Merely handing an employee a MSDS does not fulfill the OSHA training requirement. Retraining may be necessary whenever a new hazard (not just a new chemical) is introduced into the workplace. Previous employee training in handling flammable chemicals would not require new training with the introduction of another similarly flammable chemical in the workplace. (There may be additional requirements imposed by OSHA for injury prevention and mitigation in the workplace, such as for a temperature-limited eye wash station, goggles, protective clothing, etc. if there is danger that hazardous chemicals in the workplace could cause splatters or spills that contact the skin or threaten employees’ eyes. If there is such a risk or your practice is subject to this regulation for other reasons, a dentist should become familiar with the specific requirements of law.)

Up-to-date material safety data sheets must be maintained for all products that contain hazardous chemicals used by a dentist in his/her dental office. The file containing the Material Safety Data Sheets must be available to employees who may be exposed in the practice to chemicals requiring a MSDS. Inform staff members about which dental procedure involves a hazardous chemical and the ways your practice mitigates the danger of their use, and cleans up following a small in-office spill of less than a gallon of a hazardous chemical. Consult the *ADA Regulatory Compliance Manual* or other resources for more information about setting up a HAZARD COMMUNICATION program in your practice.

In general, it is the dentist's responsibility to obtain the MSDS. A company that does not comply with the dentist's request for the MSDS should be reported to OSHA. Keep a copy of all correspondence with the company as it might come in handy later to document your good faith effort to obtain a missing MSDS.

## Chapter 3: Other Threats

- **Bomb Threat / Hostage Situation**
- **Bio-terrorism / Chemical Agents**
- **Chemical Spill**
- **Floods**
- **Boil-water Advisories**
- **Mass Disaster**
- **Workplace Violence**

“Depending on the circumstance, the dentist may determine the need, if any, of evacuating the dental facility and informing other building tenants of a threat, and calling authorities.”

“...prevention, vigilance and training could be your best allies for combating workplace violence.”

# Bomb Threat / Hostage Situation

*Bomb threat* A far less common menace but a real one nevertheless that business owners and building occupants nowadays could face, is a bomb threat. The staff member who receives the threatening call should pay attention to what the caller says, the time of the call and to the particular demands of the caller. Take notice of any characteristic or nuance of voice or background sound that might later help the police identify the caller or from where the call might have originated. Be sure the caller is asked when the bomb will go off. Remain calm and attentive, but act quickly to inform the dentist. Depending on the circumstance, the dentist may determine the need, if any, of evacuating the dental facility and informing other building tenants of a threat, and calling authorities.

A bomb threat is not an acceptable prank and may carry serious criminal charges and consequences for a perpetrator. A dentist and staff members should treat a bomb threat seriously and may be directed by authorities to begin an immediate search. Search quickly and thoroughly, but try to avoid a panic. If a suspicious package is found, do not touch, move or jar the object. All persons should exit the building to a safe distance in accordance with the emergency plan or as directed by authorities. In general, avoid using the elevators during an emergency. Use the stairs instead. The bomb squad that arrives will determine when it is safe for occupants to return to the building.

*Hostage situation* A "hostage" situation involving the dentist, patients or dental staff member requires that everyone remain calm. If it is possible during the siege to call police without jeopardizing yourself or others, you should do so. On the other hand, if you or the staff are held captive by criminal extremists and you cannot call police, assume that outsiders eventually will know that a hostage situation exists and call the police for you. Avoid heroics. Most incidents end, within a few hours, with the safe release of all hostages and the surrender of the hostage taker.

While held captive, do not attempt to approach these dangerous individuals. The more distance between you and your potential assailants, the safer you might be. Don't attempt to disarm a gunman, if it is used, or use intimidation or threaten consequences in a way that might provoke a reprisal. Follow instructions, if possible. And, if you must speak to your captors during a siege, it is probably best to avoid eye contact even as you attempt to closely examine features of your captors in case a description needs to be given later to the police. Keep your hands visible. If you must move around, utilize smooth, purposeful movements that are easily understood. Sudden moves could get you or others injured or killed.

Experts suggest that in a hostage situation it is best not to get into ideological disagreements with your captors. Try to be empathetic without becoming necessarily sympathetic to whatever is their cause. If the dentist or staff member must respond to an inquiry from the hostage takers, try to reply in a steady, cool voice. A hysterical response could increase the emotional tension on both sides.

The Federal Bureau of Investigation ("FBI") in a report (*Project Megiddo* <http://www.fbi.gov/library/megiddo/Dublicmegiddo.pdf>) for the new millennium, analyzed the potential for extremist criminal activity in the United States. One conclusion was that there are enough individuals and groups with apocalyptic religious beliefs connected to the year 2000 and to new world order conspiracy theories to be of serious concern to the FBI and to law enforcement agencies across the country for years following the start of the millennium as we have seen.

If a "hostage" situation is in fact, an armed robbery and you or someone else has what a gunman wants, you probably should cooperate and turn over whatever cash or valuables are demanded. Most likely, these items can easily be replaced and are not worth risking a human life.

## Bio-terrorism / Chemical Agents

The events of September 11, 2001 put the topic of bio-terrorism and biohazards on front pages throughout the world. Dentists, as health care providers should be aware of basic facts so that they can respond to the questions of patients and be able to spot and report potentially infectious diseases that come to their attention.

The principal biological diseases receiving attention are Anthrax (*Bacillus anthracis*), Botulism (*Clostridium botulinum*), Plague (*Yersinia pestis*), Smallpox (variola major), Tularemia (*Francisella tularensis*), and Viral hemorrhagic fever. There are other biological diseases such as Q Fever and Glanders, that have not received as much attention in the press but potentially could also pose a serious threat to public health.

Chemical agents could include nerve agents (e.g. Sarin-GB, Tabun-GA, Soman-GD and VX), blister agents (Mustard-HD and Lewisite), and pulmonary agents (Phosgene-CG, Cyanide, and Chlorine).

The following charts are from the Centers for Disease Control and Prevention website <http://www.bt.cdc.gov/agent/agentlist-category.asp>

### Category A ([definition below](#))

- » [Anthrax](http://www.cdc.gov/agent/anthrax/index.asp) (*Bacillus anthracis*) <http://www.cdc.gov/agent/anthrax/index.asp>
- » [Botulism](http://www.bt.cdc.gov/agent/botulism/index.asp) (*Clostridium botulinum* toxin) <http://www.bt.cdc.gov/agent/botulism/index.asp>
- » [Plague](http://www.bt.cdc.gov/agent/plague/index.asp) (*Yersinia pestis*) <http://www.bt.cdc.gov/agent/plague/index.asp>
- » [Smallpox](http://www.bt.cdc.gov/agent/smallpox/index.asp) (variola major) <http://www.bt.cdc.gov/agent/smallpox/index.asp>
- » [Tularemia](http://www.bt.cdc.gov/agent/tularemia/index.asp) (*Francisella tularensis*) <http://www.bt.cdc.gov/agent/tularemia/index.asp>
- » [Viral hemorrhagic fevers](http://www.bt.cdc.gov/agent/vhf/index.asp) (filoviruses [e.g., Ebola, Marburg] and arenaviruses [e.g., Lassa, Machupo]) <http://www.bt.cdc.gov/agent/vhf/index.asp>

### Category B ([definition below](#))

- » [Brucellosis](http://www.bt.cdc.gov/agent/brucellosis/index.asp) (*Brucella* species) <http://www.bt.cdc.gov/agent/brucellosis/index.asp>
- » Epsilon toxin of *Clostridium perfringens*
- » [Food safety threats](http://www.bt.cdc.gov/agent/food/index.asp) (e.g., *Salmonella* species, *Escherichia coli* O157:H7, *Shigella*) <http://www.bt.cdc.gov/agent/food/index.asp>



## Category C ([definition below](#))

- » Emerging infectious diseases such as Nipah virus and hantavirus
  
- » Glanders (*Burkholderia mallei*)
- » Melioidosis (*Burkholderia pseudomallei*)
- » Psittacosis (*Chlamydia psittaci*)
- » [Q fever](#) (*Coxiella burnetii*) <http://www.cdc.gov/ncidod/dvrd/qfever/index.htm>
- » [Ricin toxin](#) from *Ricinus communis* (castor beans) <http://www.bt.cdc.gov/agent/ricin/index.asp>
- » Staphylococcal enterotoxin B
- » Typhus fever (*Rickettsia prowazekii*)
- » Viral encephalitis (alphaviruses [e.g., Venezuelan equine encephalitis, eastern equine encephalitis, western equine encephalitis])
- » Water safety threats (e.g., *Vibrio cholerae*, *Cryptosporidium parvum*)

## CDC definitions of Categories

### Category A

- can be easily disseminated or transmitted from person to person;
- result in high mortality rates and have the potential for major public health impact;
- might cause public panic and social disruption; and
- require special action for public health preparedness.

### Category B

- are moderately easy to disseminate;
- result in moderate morbidity rates and low mortality rates; and
- require specific enhancements of CDC's diagnostic capacity and enhanced disease surveillance.

### Category C

- availability;
- ease of production and dissemination; and

- potential for high morbidity and mortality rates and major health impact.

The following facts about some of these biological threats come from the website of the Centers for Disease Control and Prevention 1600 Clifton Rd, Atlanta, GA. 30333, U.S.A. Telephone (404) 639-3311 Go to the Centers for Disease Control and Prevention for the latest updates <http://www.bt.cdc.gov/>

## **Facts about Anthrax**

Anthrax is an acute infectious disease caused by the spore-forming bacterium *Bacillus anthracis*. Anthrax most commonly occurs in hooved mammals and can also infect humans.

Symptoms of disease vary depending on how the disease was contracted, but usually occur within 7 days after exposure. The serious forms of human anthrax are inhalation anthrax, cutaneous anthrax, and intestinal anthrax.

Initial symptoms of inhalation anthrax infection may resemble a common cold. After several days, the symptoms may progress to severe breathing problems and shock. Inhalation anthrax is often fatal.

The intestinal disease form of anthrax may follow the consumption of contaminated food and is characterized by an acute inflammation of the intestinal tract. Initial signs of nausea, loss of appetite, vomiting, and fever are followed by abdominal pain, vomiting of blood, and severe diarrhea.

Direct person-to-person spread of anthrax is extremely unlikely, if it occurs at all. Therefore, there is no need to immunize or treat contacts of persons ill with anthrax, such as household contacts, friends, or coworkers, unless they also were also exposed to the same source of infection.

In persons exposed to anthrax, infection can be prevented with antibiotic treatment.

Early antibiotic treatment of anthrax is essential-delay lessens chances for survival. Anthrax usually is susceptible to penicillin, doxycycline, and fluoroquinolones.

**An anthrax vaccine also can prevent infection. Vaccination against anthrax is not recommended for the general public to prevent disease and is not available.**

**Handling of Suspicious Packages or Envelopes** <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5042a1.htm> see for further details including a treatment protocol for inhalational anthrax associated with a bioterrorism attack.

- Do not shake or empty the contents of a suspicious package or envelope.
- Do not carry the package or envelope, show it to others, or allow others to examine it.
- Put the package or envelope on a stable surface; do not sniff, touch, taste, or look closely at it or any contents that may have spilled.
- Alert others in the area about the suspicious package or envelope. Leave the area, close any doors, and take actions to prevent others from entering the area. If possible, shut off the ventilation system.
- Wash hands with soap and water to prevent spreading potentially infectious material to face or skin. Seek additional instructions for exposed or potentially exposed persons.

- If at work, notify a supervisor (the dentist), a security officer, or a law enforcement official. If at home, contact the local law enforcement agency.
- If possible, create a list of persons who were in the room or area when this suspicious letter or package was recognized and a list of persons who also may have handled this package or letter. Give the list to both the local public health authorities and law enforcement officials.

## **Facts about Botulism**

Botulism is a muscle-paralyzing disease caused by a toxin made by a bacterium called

*Clostridium botulinum*.

There are three main kinds of botulism:

- Foodborne botulism occurs when a person ingests pre-formed toxin that leads to illness within a few hours to days. Foodborne botulism is a public health emergency because the contaminated food may still be available to other persons besides the patient.
- Infant botulism occurs in a small number of susceptible infants each year who harbor *C.botulinum* in their intestinal tract.
- Wound botulism occurs when wounds are infected with *C. botulinum* that secretes the toxin.

**With food-borne botulism, symptoms begin within 6 hours to 2 weeks (most commonly between 12 and 36 hours) after eating toxin-containing food. Symptoms of botulism include double vision, blurred vision, drooping eyelids, slurred speech, difficulty swallowing, dry mouth, muscle weakness that always descends through the body: first shoulders are affected, then upper arms, lower arms, thighs, calves, etc. Paralysis of breathing muscles can cause a person to stop breathing and die, unless assistance with breathing (mechanical ventilation) is provided.**

Botulism is not spread from one person to another. Foodborne botulism can occur in all age groups.

A supply of antitoxin against botulism is maintained by CDC. The antitoxin is effective in reducing the severity of symptoms if administered early in the course of the disease. Most patients eventually recover after weeks to months of supportive care.

## **Facts about Pneumonic Plague**

Plague is an infectious disease of animals and humans caused by the bacterium *Yersinia pestis*. *Y. pestis*, is found in rodents and their fleas in many areas around the world.

Pneumonic plague occurs when *Y. pestis* infects the lungs. The first signs of illness in pneumonic plague are fever, headache, weakness, and cough productive of bloody or watery sputum. The pneumonia progresses over 2 to 4 days and may cause septic shock and, without early treatment, death.

Person-to-person transmission of pneumonic plague occurs through respiratory droplets, which can only infect those who have face-to-face contact with the ill patient.

Early treatment of pneumonic plague is essential. Several antibiotics are effective, including streptomycin, tetracycline, and chloramphenicol.

There is no vaccine against plague.

Prophylactic antibiotic treatment for 7 days will protect persons who have had face-to-face contact with infected patients.

## **Facts about Smallpox**

**Smallpox infection was eliminated from the world in 1977.**

**Smallpox is caused by variola virus. The incubation period is about 12 days (range: 7 to 17 days) following exposure. Initial symptoms include high fever, fatigue, and head and back aches. A characteristic rash, most prominent on the face, arms, and legs, follows in 2-3 days. The rash starts with flat red lesions that evolve at the same rate. Lesions become pus-filled and begin to crust early in the second week. Scabs develop and then separate and fall off after about 3-4 weeks. The majority of patients with smallpox recover, but death occurs in up to 30% of cases.**

Smallpox is spread from one person to another by infected saliva droplets that expose a susceptible person having face-to-face contact with the ill person. Persons with smallpox are most infectious during the first week of illness, because that is when the largest amount of virus is present in saliva. However, some risk of transmission lasts until all scabs have fallen off.

**Routine vaccination against smallpox ended in 1972. The level of immunity, if any, among persons who were vaccinated before 1972 is uncertain; therefore, these persons are assumed to be susceptible.**

Vaccination against smallpox is not recommended to prevent the disease in the general public and therefore is not available.

**In people exposed to smallpox, the vaccine can lessen the severity of or even prevent illness if given within 4 days after exposure.** Vaccine against smallpox contains another live virus called vaccinia. The vaccine does not contain smallpox virus.

**The United States currently has an emergency supply of smallpox vaccine.** There is no proven treatment for smallpox but research to evaluate new antiviral agents is ongoing. Patients with smallpox can benefit from supportive therapy (intravenous fluids, medicine to control fever or pain, etc.) and antibiotics for any secondary bacterial infections that occur.

## **THE PUBLIC HEALTH EMERGENCY RESPONSE: THE CDC ROLE (FROM ITS WEBSITE)**

*Strengthening the nation's public health system to protect Americans during public health emergencies*

**CDC's responsibility**, on behalf of the Department of Health and Human Services (DHHS), is to provide national leadership in the public health and medical communities in a concerted effort to detect, diagnose, respond to, and prevent illnesses, including those that could occur as a result of bio-terrorism or any other deliberate attempt to harm the health of our citizens. This task is an integral part of CDC's overall mission to monitor and protect the health of the U.S. population.

**A strong and flexible public health infrastructure** is the best defense against any disease outbreak -- naturally or intentionally caused. CDC's on-going initiatives to strengthen disease surveillance and response at the local,

state, and federal levels complement efforts to detect and contain diseases caused by the biological agents that might be used as weapons.

*Unlike an explosion or a tornado*, a bio-terrorist attack could be invisible and silent, and thus would be difficult to detect at first. The release of a biological agent or chemical toxin might not have an immediate and visible impact because of the delay between exposure and onset of illness, or incubation period. The initial responders to such a biological attack would include local, county, and city health officers, hospital staff, members of the outpatient medical community, and a wide range of response personnel in the public health system.

*CDC and the public health community at large* is not involved in assessing the likelihood of a bio-terrorism threat. [The CDC's] responsibility in the overall federal counterterrorism response is to improve the public health community's preparedness to detect illness that may be related to a bio-terrorism threat, and develop the appropriate public health structure and contingency plans to respond effectively in the event of a bioterrorism incident.

**In recent years**, it has become more common for public health disease outbreak investigators to consider the possibility of a terrorist event when they investigate the cause of an outbreak. It is not always clear in the first stages of an epidemiologic investigation whether an outbreak has a natural or man-made cause. The investigative skills, diagnostic techniques, and physical resources required to detect and diagnose a disease outbreak are the same ones required to identify and respond to a silent bio-terrorist attack.

*CDC has a strategic plan* to improve our preparedness for responding to any threat or actual act of bio-terrorism. In 1998, CDC issued Preventing Emerging Infectious Diseases: A Strategy for the 21 st Century, which describes CDC's plan for combating today's emerging diseases and preventing those of tomorrow.

*The effort to upgrade public health* capabilities locally and nationally to respond to biological and chemical terrorism is underway. CDC, working in collaboration with State and local health departments, many other public health partners, and other Federal agencies, is leading the effort.

CDC has developed a stockpile of pharmaceuticals to be able to reach victims of an incident anywhere in the continental U.S. within 12 hours. This system was proven for the first time when tons of medical supplies reached New York City within seven hours of deployment following the attack on the World trade Center. CDC is developing an infrastructure for rapid delivery of pharmaceuticals and adequate monitoring and record-keeping systems.

## Biological Disease

## Indications in the Mouth

<b>Anthrax</b>	<b>Ulcerations</b>
<b>Botulisms</b>	<b>Ulcerations, difficulty in swallowing</b>
<b>Plague</b>	<b>Bloody sputum</b>
<b>Smallpox</b>	<b>Vesicles and ulcerations</b>

NOTE: United States Medical Research Institute of Infectious Diseases produces an excellent bio-terrorism handbook *Medical Management of Biological Casualties*, 4<sup>th</sup> Edition 2001, available online at <http://www.usamriid.army.mil/education/bluebook/Mnbch4WordVer4-02.doc> There is also a Palm OS version for free downloading at <http://www.usamriid.army.mil/education/bluebook.html>

A consensus meeting at the American Dental Association headquarters building in Chicago, in June 2002, regarding the “Role of Dentistry in Bioterrorism,” among its observations, noted that “Dentists [in a bioterrorist attack] could be called on to prescribe and dispense chemotherapeutic or chemoprophylactic medication for the public.” (JADA, September 2002). Clearly, dentists may need to know more about biological agents, the fears of patients and how they might have a role in helping to recover from a biological attack on the U.S., particularly if the medical infrastructure, including personnel, is seriously impaired.

# Chemical Spill

In the event of a major chemical spill involving the release of hazardous gas into the atmosphere from a nearby manufacturing facility, rail yard, nuclear plant, etc. you may receive an emergency warning to evacuate or to take cover indoors. In most cases, if it is too late to leave the area or you are not asked to do so, seek the best available shelter in order to avoid as much as possible the potentially harmful gas cloud that might pass by.

This is referred to by OSHA and others as “sheltering in place” ( <http://www.nicsinfo.org/SIP%20plan%20for%20offices%20NICS%20feb2003.pdf> ). Remain indoors and if necessary to protect your breathing, cover your nose and mouth with a damp hand cloth or towel. Turn off heating/cooling/ventilation systems. Wait indoors for an all-clear signal such as from the radio, or from emergency personnel on the scene or from police contacting you. Unlike in a tornado where you might want to be as low as possible to the ground, in a chemical incident you want to be as high as possible to better avoid vapors that sink. Seal your doors and windows if possible with duct tape.

If you come into contact with a dangerous chemical, you may need to decontaminate yourself such as by removing contaminated clothing and washing yourself immediately. Do not pull contaminated clothing over your head, use scissors to cut them away. In doing so, avoid touching contaminated areas. Place the clothing first into a plastic bag; seal the bag; then, place into a second plastic bag that you also seal.

A chemical spill is considered hazardous to a community if:

- It is flammable, highly reactive, or explosive.
- It generates harmful vapors or dust particles that affect eyes or lungs.
- It is corrosive and attacks skin, clothing, equipment, furniture or facilities.
- It is poisonous by ingestion or absorption.
- It is radioactive.

Small workplace chemical hazards and spills (less than a gallon, generally) that might occur inside your practice and what to do, was briefly described in the section of this publication that deals with MSDS sheets.

## Natural Disaster: Floods

Many communities throughout the U.S. are prone to flooding. Floods may occur following spring rains, heavy thunderstorms or winter snow thaw. A dam failure could produce a catastrophic flood.

***Before a flood occurs*** If possible, a dentist or the building owner should consider turning off all equipment from the main power cut-off switch and closing the main gas valve into the facility. If there is sufficient warning, consider moving patient records, computers, easily moved equipment, furniture or supplies to a higher floor or to a location outside of the expected flood area. In an emergency situation, be prepared to abandon the building if necessary or if requested to do so by authorities. Relocate immediately to higher ground out of reach of the flood.

Learn about your community's warning sirens and become familiar with the following terms:

- **Flood Watch** - Flooding is possible. Stay tuned to NOAA radio<sup>1</sup> or commercial radio or television for additional information.

- **Flash Flood Watch** - Flash flooding is possible. Move to higher ground. A flash flood could occur without any warning. Listen to NOAA radio or commercial radio or television for additional information.
- **Flood Warning** - Flooding is occurring or will occur soon. If advised to evacuate, do so immediately.
- **Flash Flood Warning** - A flash flood is occurring. Seek higher ground on foot immediately.
- **Urban and Small Stream Advisory** - Flooding of small streams, streets and low-lying areas is occurring.

*During a flood* A good idea during a natural emergency is to continue listening to local radio for news updates about the disaster or for instructions about what to do, where to go or what places to avoid during the emergency. Listening to news reports from the radio or television is an excellent way to monitor the situation and could help to explain the delay or inability of patients and staff to get to the office. During periods of flooding, the National Weather Service's river-forecast centers issue forecasts for the height of the flood crest, the date and time when the river is expected to overflow its banks, and the date and time when the flow of the river is expected to recede to within its banks.

Do not attempt to walk, swim or drive an automobile through swift-moving water. As little as six inches of fast-moving flood water can knock a person down. Two feet could float an average-size car.

*After the flood* Do not re-visit the flood area until after authorities announce that it is safe to return. In the vicinity of the flood, be on the lookout for hazards, especially downed power lines, as electrocution is a leading cause of death in a flood. Other hazards are displaced poisonous snakes in some regions, and slips and falls. When first entering a recently inundated building, use special caution, as floors are usually still slippery. If your building appears to be structurally weakened, you should probably exit the building immediately and alert authorities.

*Asbestos* Repairs, renovation or demolition could release harmful asbestos fibers in older construction. Asbestos in the past was used around pipes and in roofing felts, dry wall, floor tiles, and coatings on ceiling. Following a flood, you may need a professional to help you evaluate how to safely remove existing asbestos since asbestos inhalation is known to cause several deadly diseases including asbestosis, which is a progressive and often fatal lung disease; and lung and other cancers.

*Lead paint* Similarly, repairs that produce airborne concentrations of lead from old painted surfaces can be potentially dangerous. Lead is a heavy metal that can cause damage to the nervous system, kidneys, blood forming organs, and to the reproductive system if inhaled or ingested in dangerous quantities. Sanding surfaces containing lead-based paints with no breathing protection could result in the release of airborne particles of this metal that could be harmful if inhaled.

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<sup>1</sup> Known as the "Voice of the National Weather Service," NOAA ("National Oceanic & Atmospheric Administration") Weather Radio is provided as a public service by the Department of Commerce. The NOAA Weather Radio network has more than 480 transmitters covering the 50 states, adjacent coastal waters, Puerto Rico, the U.S. Virgin Islands, and the U.S. Pacific Territories. National Weather Radio ("NWR") requires a special radio receiver or scanner capable of picking up the signal. Broadcasts are found in the public service band at these seven frequencies (MHz): 162.400 162.425 162.450 162.475 162.500 162.525 162.550. Receivers can be purchased in most retail electronic stores for approximately \$25 to \$100 or more. The National Weather Service broadcasts warnings, watches, forecasts and other hazard information 24 hours a day. The National Weather Service does not endorse any particular make or model, nor does the American Dental Association. For more information regarding NOAA see FAQs at <http://www.nws.noaa.gov/pa/secnews/nwr/nwrfaq.htm>



*Fungi and spores* Another source of potential illness for a cleanup worker is from exposure to airborne fungi and their spores. Dust particles that might contain fungal material often accompany decaying vegetable matter and fungus-contaminated debris handled by workers clearing debris. Signs and symptoms of illness from fungi include shortness of breath, muscle aches, fever and pain behind the breastbone, and other flu-like symptoms. Onset of symptoms can occur within 4 to 6 hours and could last up to 16 hours. Recovery is usually uneventful.

*Patient records* In a dental practice that is primarily using paper patient records, the wet flood-damaged paper dental records could present unique problems since for reasons of continuity of care, nothing generally can substitute for the completeness of the original record. In a court case, for example, the original dental record is usually favored over copies as the "best evidence" of the patient's dental history, clinical examination data, diagnosis, treatment plan, informed consent, notes and treatments. A dentist will likely want to recover these damaged records if at all possible.

In a disaster, a practice may have fiduciary responsibilities with respect to reasonably protecting the patient treatment information (dental health records) in its possession irrespective of whether the information is held in an electronic or a paper format. Having a written emergency action & disaster recovery plan could be one way of demonstrating due diligence with regard to helping ensure the survival of the dental health records.

For risk management purposes, protecting from destruction, or restoring and keeping as much of the original record as possible in accordance with a plan, could be of paramount importance to quickly resuming normal operations for a dental practice that has suffered in a disaster.

*Recovering wet dental records following a flood or fire* The Centers for Disease Control and Prevention ("CDC") Washington, DC recommends the use of gloves while handling wet, flood-soaked paper records. However, at this time, the CDC does not make any recommendation about a need to disinfect wet records beyond drying them since according to them, the waterborne microorganisms that might cause disease in humans generally are not absorbed through intact skin and would probably need to be ingested to cause harm.

The Northeast Document Conservation Center ("NEDCC") Andover, Massachusetts is a nonprofit, regional conservation center with the mission of improving preservation programs at libraries and museums. This organization grew out of the collected concern of collections-holding institutions in the northeast faced with the problem of deteriorating historical collections. NEDCC is nationally and internationally known as a premier facility specializing in paper-based conservation treatment and preservation education.

This organization made available some excellent recommendations for recovering water-damaged business records that are incorporated into an inexpensive publication from the American Records Management Association ("ARMA"), titled, "Handbook for Recovery of Water-Damaged Record." (Information about how to order the publication or to contact NEDCC is in the **Resources** section.)

NEDCC's Field Service program provides free 24 hour disaster assistance consultations to institutions and individuals by telephone (978-470-1010) through a grant from the National Endowment for the Humanities. At the time of a disaster, they may be able to give you a nearby referral or offer recovery advice about damaged business records. NEDCC also handles calls from museums and libraries that suffer damage to their historic documents or paintings. It could be important to the success of your recovery effort with water-damaged or fire/smoke-damaged dental records to know as soon as possible what to do or who near you might be able to provide professional recovery help.

In general, soaked paper records begin to deteriorate within 3 hours and may completely dissolve in 4-5 days. Important water-damaged paper records that you want to recover should be frozen and freeze or vacuum dry,

according to experts, within the first 10 hours. Freeze drying of frozen materials converts the frozen water to a gas (sublimation) and by-passes the liquid state altogether. In conjunction with a vacuum, it is said that the process can be highly successful in recovering wet paper records.

A simpler, though less effective method for recovering a small number of wet paper records before molds or mildew set in is called "interleaving." Basically, absorbent sheets (such as white florist's waxed paper or 25% bond or high quality rag paper, or even unprinted paper towels) are placed between the wet sheets in order to hasten the drying process.

Here are some basic recommendations from practicing conservators for recovering water-damaged, paper business records and dealing with mold and mildew <sup>2</sup>:

- Lower the temperature and humidity (ideal: 50 - 70 degrees F. and 40 -50% relative humidity), and increase air circulation to reduce the growth of molds. Use moderate room lighting to inhibit mold growth
- Avoid packing water-damaged paper records in sealed plastic bags that could promote mold formation
- Use protective clothing such as disposable gloves, eye protection and a respirator with particulate filter, as inhaling molds could cause serious illness
- Air dry wet records away from direct sunlight or heat that could cause buckling and warpage from too rapid drying
- Fumigants that destroy molds and fungi are potentially harmful and should only be handled by those trained in their use.

*Supplies and equipment* Do not re-sterilize flood-damaged, pre-packaged paper sterile products such as surgical gauze, paper points, gloves, bandages, etc. as manufacturers generally do not warranty these items for sterility once they are wet or remain open. Replacing most flood damaged paper-wrapped supplies is relatively inexpensive and is your safest course of action.

Permanent dental equipment that is inundated, on the other hand, cannot so easily be discarded even though an extended soaking under water usually renders most equipment irreparable. However, once the waters recede and everything is dry, an experienced technician should inspect all of your equipment to determine serviceability. For example, it might be possible to re-condition a dental chair's motor, reupholster the chair and armrest with new vinyl or cloth and still achieve a significant cost saving over an all-new replacement, especially if there is inadequate or no flood insurance. Contact your dental equipment dealer for more information about inspecting and reconditioning damaged dental equipment.

*Microbes in floodwater* Examine tap water closely before use. For instance, water that is cloudy, that smells or tastes bad probably should not be consumed. If necessary, allow at least 5 minutes of boiling time to make suspicious water safer for use (see Boil-water Advisories in the section that follows).

To inspect the practice following a flood that came into your office, wear protective clothing. However, do not wear your flood-soiled garments home as floodwater can come in contact with sewage. As such, floodwater is regarded as potentially infectious. Which is why any cuts or wounds you have that come into contact with flood water should be disinfected. Getting contaminated flood water into eyes, mouth or allowing it to contact bare or broken skin could result in illness.

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<sup>2</sup> These are general recommendations. The American Dental Association strongly recommends that you consult with a professional conservator as to the appropriate manner for treating your important water-damaged paper business records such as patient treatment records, personnel and payroll records, contracts and inventories.

The infectious organisms in floodwater according to a U.S. Department of Labor Occupational Safety and Health Administration ("OSHA") ALERT bulletin, could include intestinal bacteria such as *E. coli*, *Salmonella* and *Shigella*, Hepatitis A virus, and agents of typhoid, paratyphoid and tetanus. Vomiting, diarrhea, abdominal cramps, muscle aches and fever, according to the bulletin, could be signs and symptoms of illness from swallowing and becoming contaminated by floodwater. Giardiasis is an example of a sickness caused by a parasite that gets into contaminated water.

If necessary, wear boots and goggles or safety glasses for eye protection. Impervious latex or vinyl gloves may be needed for cleaning up solid chemicals or water-based solutions. (*Note: NOT recommended for organic chemicals.*) Oil or chemical wastes could get into flood water as well.

In general, headaches, skin rashes, dizziness, nausea, excitability, weakness and fatigue could be symptoms associated with chemical poisoning from tainted floodwater. Some common illnesses connected with sewage-contaminated water are tetanus, hepatitis, dysentery and food poisoning.

A tetanus vaccination might be needed (depending on an individual's vaccination history) if broken skin has come in contact with floodwater. Check with your personal physician if exposed.

Resume normal patient care using tap water only after the water supply is declared safe by authorities. However keep in mind, that in addition to water for sinks and drinking fountains, the high speed dental hand-piece, water spray and the ultrasonic dental scaler---all usually use tap water that could have become contaminated during the flood. Follow your manufacturer's recommendation for clearing lines and sterilizing these items.

## **Boil-Water Advisories**

The following information is taken verbatim from the suggested procedures for dental offices during boil-water advisories of the U.S. Department of Health and Human Services ("HHS"), Centers for Disease Control and Prevention ("CDC").

### **Suggested Procedures For Dental Offices During Boil-Water Advisories**

The Division of Oral Health, which is part of the National Center for Chronic Disease Prevention and Health Promotion at the Centers for Disease Control and Prevention ("CDC"), suggests that the following procedures may be appropriate for dental offices during boil-water advisories. These procedures should be observed in addition to specific instructions issued by state or local health departments during these advisories.

#### **While a boil-water advisory is in effect:**

- Water from the public water system should not be delivered to the patient through the dental unit\*, ultrasonic scaler, or other dental equipment that uses the public water system until the boil-water advisory is canceled.
- Patients should not use water from the public water system for rinsing but should use water from alternative sources, such as bottled or distilled water
- Dental workers should not use water from the public water supply for hand washing. Instead, antimicrobial-containing products that do not require water for use, such as alcohol-based hand rubs, can

be used until the boil-water notice is canceled. These products have been reviewed and cleared for marketing by the U.S. Food and Drug Administration ("FDA").

**When the boil-water advisory is canceled:**

- First, incoming public water system water lines in the dental office should be flushed (i.e., cleared of contaminated water). All faucets in the dental setting should be turned on completely for at least 30 minutes, including water lines to dental equipment that uses the public water system.
- After the incoming public water system water lines are flushed, dental unit water lines should be disinfected. The dental unit manufacturer should be consulted to determine the appropriate procedures to disinfect the dental unit water lines.

Because water from the affected public system should not be delivered to the patient during a boil-water advisory, many dental procedures cannot be performed. Alternative water sources, such as separate water reservoirs that have been cleared for marketing by the FDA, can be used. However, if the alternative water source were to flow through a dental unit previously connected to the affected public water supply, the dental unit water lines should first be flushed and disinfected according to the manufacturer's instructions.

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\* "Dental unit" refers to the medical device at each dental chair that provides water and compressed air for use during dental procedures.

# Mass Disaster

Mass disaster generally involves the sudden, violent, unexpected, indiscriminate and significant loss of life or injury following a calamitous event that usually produces more fatalities than can be handled using local resources. If this event occurs near your practice or involves one of your patients, you could be asked to become involved.

Dental records and radiographs can be invaluable for quickly identifying mass disaster victims particularly in cases of dismemberment, commingling of body parts, fire or in cases of advanced decomposition. Specially trained volunteer dentists on the scene of a mass disaster or days later at a crime laboratory, compare collected dental records from the dentists of victims, to the dental exemplars from the disaster site in order to positively identify the victims.

Oftentimes, general dentists from the area volunteer to assist in the identification of victims. And, depending on the kind of disaster and on how deeply involved volunteer dentists or their staff may become, the emotional stress that some rescuers and volunteers may feel could be enormous, particularly in situations involving fatally injured children, charred remains or commingled body parts. Mainly for these reasons, a professional counselor is generally a member of the mass disaster team. Post-crisis intervention conducted by a professional counselor could help rescuers and investigators deal with troubling reactions and emotions. For example, five years after the Alfred P. Murrah Federal Building bombing in Oklahoma City according to the *Health Facilities Report*, (January 1999) and first reported by MSNBC, at least five of the Murrah rescue workers have committed suicide and the divorce rate for police and for fire personnel that participated is out of the ordinary. Researchers who study behavior believe that high levels of emotional stress along with inadequate professional post-crisis counseling perhaps could account for the unusual observations in Oklahoma. Recognizing this harmful oversight, rescuers and investigators on the World Trade Center II bombing, received extensive counseling.

Yet, despite potential personal hazards and hardships, following a tragic event dentists and their staff because of their humanitarian concern and unique identification skill with teeth, often chose to volunteer on-site as part of the identification team at a mass disaster. Established disaster identification teams are found in many states. There might be one in your area that welcomes dentist participation. Contact your dental society for information about becoming a member of your state's identification team if you wish to participate or learn more.

If your state does not have a mass disaster identification team, the Council on Dental Practice of the American Dental Association has information on how a dentist might organize a dental identification team. Call the Council's office at 312-440-2895 to receive the helpful guide, *Directory of Dental Mass Disaster Identification Teams in the United States*. A reliable source of information about the training of dentists who provide forensic assistance following a mass disaster emergency is the American Board of Forensic Odontology ("ABFO"). This professional organization maintains a web site at [www.abfo.org](http://www.abfo.org)

# Workplace Violence

Most every expert agrees that one definition of workplace violence certainly involves inflicted bodily injury on the job. Some others broaden the definition to include language or actions that make one person uncomfortable such as from threats or harassment that occur in the workplace.

In 1996, OSHA (Occupational Safety, Health Administration), a federal agency involved in worker safety matters, issued the *Guidelines for Preventing Workplace Violence for Health Care and Social Service Workers*.

According to that OSHA report, more assaults occur in the health care and social services industries than in any other industry.

OSHA, in the *Guidelines*, urged management including healthcare managers, to affirm a policy that "places as much importance on employee safety and health as on serving the patient or client."

The guidelines are voluntary and not an enforceable standard. However, under Section 5(a) of the OSHA Act, 1970---which is an enforceable standard---the "General Duty Clause" for enforcement authority, allows that employers can be cited for violating the Clause if there is a recognized hazard of workplace violence at their establishment and they do nothing to prevent or abate it.

Employers are called upon in the *Guidelines* to:

- keep records of threatening or violent workplace incidents
- conduct surveys to determine if employees feel threatened, and to solicit employee input to reduce the threat of violence
- make structural and procedural changes that protect employees from enraged clients or customers
- provide training and education in the early warnings and prevention of workplace violence. Train workers to identify hazardous situations, manage agitated patients and family members, and to provide appropriate responses in emergencies
- establish post-incident response procedures for victims and witnesses of violence
- install metal detectors to identify concealed weapons
- install alarm systems and panic buttons
- use bright and effective lighting
- use curved mirrors at hallway intersections
- allow for two exits in a room and arrange furniture to prevent entrapment
- set up "time out" or seclusion rooms
- provide adequate staffing, particularly during times of increased patient activity and during restraining procedures
- establish communications with the local police
- provide enclosures, deep service counters, or bullet-resistant glass to protect staff

A dentist should conclude from a risk assessment, which of the above may be needed for their circumstance.

The OSHA regulation about workplace violence, **Occupational Injury and Illness Recording and Reporting Requirements - 61:4029-4067** can be found at [http://www.osha-slc.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=FEDERAL\\_REGISTER&p\\_id=13523](http://www.osha-slc.gov/pls/oshaweb/owadisp.show_document?p_table=FEDERAL_REGISTER&p_id=13523) (Small employers of no more than 10 employees are exempt. )

*Employee-on-employee violence* One sure way of heading off employee-on-employee violence would be to know more about a prospective employee during the initial hiring interview. Of course during the interview process an equally important consideration should be to not violate the numerous legal protections that applicants have against illegal discrimination when applying for work. The Americans with Disabilities Act and the Civil Rights Law should come immediately to your mind since willful violation of either law could result in serious financial penalties and/or other consequences to a dentist-employer.

There are many publications that can help a dentist learn about how to conduct lawful hiring interviews. Additionally, a dentist may wish to speak with his/her attorney about employers' responsibilities under federal, state or local law.

A written statement in your Emergency Action Plan should address workplace violence. Remember, that every employee has a responsibility to help maintain a safe work environment. Your practice's policy should cover not only acts of physical violence, but harassment, intimidation, and other disruptive behavior. Furthermore, the policy needs to cover both worker-related violent incidents, and incidents caused by non-employees who perpetrate acts of violence upon employees in the workplace.

The following are some ideas that might help you to reduce the threat of employee-on-employee violence:

- First, observe the laws that protect an applicant from hiring discrimination. Screen and hire employees appropriately. Contact your attorney if you are unsure about any of your hiring/firing/disciplining practices or the requirements of the law. Document your actions in writing.
- Require that workers report instances to the dentist of workplace violence including harassment, threatening, insulting or vulgar language. A dentist should demonstrate his/her commitment to prevent violence in the workplace. Be prepared to remedy a situation including discipline and proper termination of an employee who violates acceptable behavior.
- Encourage employees who need help to seek professional counseling to deal with emotional stress, family dysfunction, debts, drug or alcohol abuse.
- Assure employees that no reprisals will be taken or allowed against employees who report violence. Immediately obtain the facts, if possible. Remain impartial.
- Become aware of the **early warning signs** in an employee that might indicate the potential for workplace violence, such as mood swings, detachment from others, erratic behavior, change in work habits, veiled or open threats; signs of anxiety, irritability or depression. Ask yourself and employees if there have been threats of suicide? Or, unwanted sexual advance? And most importantly, a troubled employee with a potential for workplace violence routinely might lay the blame on others for his/her problems. Their perception is often of imaged injustices or malice coming at them from all directions.
- The OSHA Log of Injury and Illness (OSHA 200) that every employer keeps, requires that any injury needing more than simple first aid is recorded in the log. These injuries could include a lost-time injury; one that modifies job performance, or one that causes loss of consciousness. **IMPORTANT: Any injury that causes hospitalization of more than 3 workers must be reported to OSHA within eight hours.**
- You should have an employee handbook that covers the rules of operation, responsibility and behavior in your practice. The *ADA Employee Office Manual* (Item # J059) is an excellent resource for developing your own employee handbook. This publication is available for sale through the ADA Catalog Sales Department (1-800-947-4746) at a discount to ADA members. [www.adacatalog.org](http://www.adacatalog.org)
- The Dentists Well-being Department at your state or local dental society might be able to provide resources or well-being assistance for dentists. Or you may call the American Dental Association's Well-being Program for Dentists, extension 2622. Ask for the Well-being manager.

*Patient (or stranger)-on-employee violence* Although the dental practice is not a particularly dangerous place with regard to employee-on-employee violence, a few assaults on staff from outsiders do occur annually. Check with local police to learn more about crime in your practice's neighborhood. Perform an assessment of your community and closely evaluate for safety the area immediately surrounding your practice. Removing hiding places like bushes and improving lighting might better ensure physical security.

In the case of a patient harassing an employee and causing a hostile environment, the same policies against workplace violence should apply to them. That is, instances of harassment or insulting, threatening or vulgar language from a patient to an employee should not be tolerated and could be the basis for dismissing the patient. However, before dismissing the patient, gather the facts since a dentist needs to carefully observe accepted medico-legal practices which could help them avoid an allegation of patient abandonment or improper discrimination.<sup>3</sup>

**IF AN IMMEDIATE THREAT OF WORKPLACE VIOLENCE EXISTS  
CALL POLICE!!**

<sup>3</sup>The ADA Catalog Sales Department sells the excellent publication, "Terminating the Dentist-Patient Relationship," item # L204. Call 1-800-947-4746 to order. Topics in this short publication include elements of abandonment, circumstances and notification of discharge, termination letters and more.

Results of a recent ADA survey that asked questions about workplace violence<sup>4</sup> in the dental practice indicated that 42 practices or 1.5% (N=2,864) of practices surveyed reported dental team members who suffered an incident of bodily injury from an attacker while in the dental office. There were 35 reports or 1.2% (N=2860) of practices that reported patients suffered an attack on the premises.

The breakdown of who perpetrated an attack on staff or patients within the dental practice is as follows:

	<b>Percent</b>	<b>N</b>
a. A dental patient	59.6%	31
b. A complete stranger	28.8	15
c. The domestic partner of a patient or staff member	13.7	7
d. A dental practice employee	7.8	4
e. Other, please specify	8.3	5

*Source: American Dental Association, Survey Center, 2000 Survey of Current Issues in Dentistry*

<sup>4</sup> 2000 Survey of Current Issues in Dentistry: The ADA Survey Center.

Of the reported injuries, 4 or 7.3% (N=55) required a hospital visit. One incident involved more than two individuals going to the hospital.

In the case of dental practices providing treatment within an institutional setting, such as a prison, hospital or nursing home, 14.1 % (N=379, All Dentist N=2,692) indicated they routinely provide services there. Thirty-four, or 3.4% (N=1,049) said that one of their institutional dental patients was the attacker.



Dentists' reported responses in the way of structural changes intended to protect staff from workplace violence varied, 1.2% (N=6) installed bullet-proof glass; 34.0% (N=175) improved the lighting around their premises; although, the main response, 76.4% (N=394), was to put in alarm systems. The mean cost for structural changes was \$2,501.74.

A domestic dispute accounted for 15.6% (N=5) of attacks on staff members; robbery accounted for 9.4% (N=3) of attacks; and "unknown," was 12.5% (N=4). Of the reasons given by dentists for all such attacks, 65.6% (N=21) thought that the attacker was an "unstable individual."

When asked about whether they had ever had to discipline a staff member for harassing, threatening, insulting or vulgar language, 7.7% (N=205, All Dentist N=2,676) of dentists said, yes. Surprisingly, 29.2% (N=785, All Dentists N=2,676) affirmed that they had to dismiss a patient for the same reasons.

Hence, workplace violence could be a concern even in the dental practice.

The following recommendations might help certain dental practices reduce the threat or occurrence of patient (or stranger)-on-employee violence in the dental workplace:

- Be aware of which heavy or pointed objects in the reception area could be used as a weapon. If possible, remove these potentially threatening objects.
- Consider implementing physical security improvements: Examine doors and locks, lighting in the parking lot, fencing, or removing landscaping that might give cover to criminals.
- Bank often and handle cash away from the view of onlookers.
- If necessary, install foot-controlled panic buttons that are connected to police.
- Seconds could count in an attack. Make sure that staff know what to do and who to call following an assault or robbery.
- Secure the entrance to the inner dental suite with key-control or by electronic access. Limit visitors to the back areas of the dental suite. Design treatment rooms to have dual exits.
- Don't leave an employee alone with an aggrieved or agitated patient.
- Avoid isolation. Site a new practice in a busy area such as on a professional or retail concourse or near a busy street.
- Get to know business owners and workers in your area who might call police in an emergency should they notice a threatening situation in or near your office.
- At the end of the day, everyone should depart together. Avoid leaving an employee alone in the office to "finish up..." without, at least, first securing the doors.
- If you provide dental care in a hospital or nursing home, or if you bring institutionalize patients to your practice for treatment, there is a greater threat of patient-on-employee violence due to the large number of emotionally disturbed patients held in institutions. A dentist might need to heighten vigilance and institute appropriate policies and training to prevent violence upon dental staff members.
- Provide patients with appropriate anesthetics during dental treatment and necessary pain-killers for their at-home use. Unintended insensitivity to a patient's pain could potentially cause an emotionally disturbed patient to react violently. Routinely monitor patients for emotional stress and be prepared to call police if necessary. Police would much prefer to be called before a bad situation with a patient in your practice becomes life threatening.
- Avoid storing controlled substances or large amounts of cash or gold alloy in the practice. Cash and gold alloy stored in the practice could invite robbery and assault. If you must store these items on site, consider installing a vault or office safe.

- Practice lawful collection procedures that prohibit threats of violence, obscene or profane language, or that use repeated telephone calls to annoy and that could provoke reprisal.
- Prohibit staff members from meeting with patients alone in the office during off-hours.
- A dentist is usually not required to come into the office after hours to treat a dental emergency involving a non-patient of record. However, if the dentist wishes to respond to a stranger's immediate need to see a dentist, but remains suspicious about meeting a stranger alone in the middle of the night, it might be a good idea to first telephone the police and ask that a police officer come to the practice while the stranger is being treated. Wait in your automobile for the police to arrive before going into the dental suite with the stranger.
- Do not permit instances of harassment, abusive language, or threats from patients upon employees; or among employees; including from dental associates upon subordinates.

An effective "violence prevention" program for a typical business including a dental practice should include 1) the dentist's commitment to preventing violence in the workplace; 2) an analysis of the workplace and community (risk assessment); 3) risk prevention and control; 4) training of the staff so that they can act fast and appropriately in an emergency; and 5) practice (i.e. routine drills) that hone various emergency response skills. Above all, a dentist should have fair, clear policies about sexual harassment, possession of firearms on company property, security, fitness for duty and substance abuse matters.

If you learn that an employee feels threatened or there is an incident of workplace violence, you may need to investigate: **What** happened; **Who** was involved; **Where** it happened; **When** it happened; **Why** it happened; and **How** it happened in order to determine how to remedy the situation or know what to do to prevent repeat violence.

In summary, prevention, vigilance and training could be your best allies for combating workplace violence. Develop a zero-tolerance policy, inform employees and place into your employee handbook. Indicate that all instances and allegations of workplace violence will be investigated and remedied immediately, if necessary.

## **Chapter 5: Recovery Planning**

- **Flood Insurance**
- **Partial or Total Destruction of the Premises**
- **Business Scams & Other Scams**
- **Recovery and Continuity Planning**

“Without a contingency plan, some businesses simply cannot get going soon enough following a disaster to retain their current customers and workers, conserve cash during the recovery process, or orchestrate the many complexities of re-building...”

## **Flood Insurance**

Many routine homeowner's policies do not include flood protection insurance, although where appropriate, having adequate flood insurance is one way to help protect a dentist's place of business and provide coverage in case of practice interruption. If covered, notify the insurance carrier about interior and exterior building damage. In addition, dentists who own their destroyed building should consider re-building away from a flood plain. For more information about insurance matters, contact your agent or insurance company.

Depending on the community and other factors, the dentist whose practice is damaged or destroyed by a flood disaster might be eligible for federal assistance. The National Flood Insurance Program ("NFIP") is a federal program created in 1968, enabling property owners to purchase insurance protection against losses from flooding. This insurance is designed to provide an insurance alternative to disaster assistance in order to meet the escalating costs of repairing damage to buildings and their contents caused by floods. The NFIP is administered by the Federal Insurance Administration ("FIA"), a component of the Federal Emergency Management Agency ("FEMA"), an independent agency. This federal program is only available in communities where the appropriate public body has voluntarily adopted adequate floodplain management regulators for its flood-prone areas.

Currently, NFIP has 3.5 million policies in force and equal to \$360 billion worth of coverage, in 18,435 communities across the country. Private companies write the policies which are sold by participating insurance agents and brokers. In addition to covering home, apartments and condominiums, NFIP can also protect commercial structures.

Limits for contents coverage under the program for residential buildings is \$100,000. Commercial buildings such as a dental building, have coverage limits of \$500,000 for the building itself and another \$500,000 for the contents. Since 1969, over \$6.9 billion in claims have been paid out to policyholders. For more information see <http://www.fema.gov/nfip/summary.shtm> or call National Flood Insurance Program 1-800-427-4661.

## **Partial or Total Destruction of the Premises**

A dentist that leases space and who suffers the partial or total destruction of the dental premises, needs the protection of a lease agreement that appropriately deals with so called "acts of God, "such as fire, flood or earthquake.

Under a properly drawn agreement, responsibility for repairs are attributed either to the dentist or to the landlord. A provision is included whereby a dentist that cannot work in the damaged space can pay reduced payments while repairs are being made; make no payment whatsoever during repairs if the income producing portion of the space is destroyed; or eventually may terminate the lease if a return to work is much delayed because of unfinished repairs. In this way, abatement is linked to the severity of the destruction and the consequent impairment of the dentist's ability to meaningfully conduct business in the leased space.

A separate clause in the lease agreement should indicate when the repairs must be finished ("within 90 days" or "within 180 days," etc.) before the dentist has the right to unilaterally terminate the lease. Lease language to the effect that the landlord will make restorations "as soon as possible" or use "due diligence" to make repairs could leave the dentist with no idea about, the maximum number of patient days that could be lost in a worst case scenario. A dentist should not accept indistinct language of this sort since normally it would be inadequate to compel the landlord to timely restoration following an instance of extensive damage to the dental facility.

Typically, many realtors recommend including in the agreement not only what is a fully defined interval in which repairs must be completed following destruction of the dentist's work space, but language in the lease that starts the repair countdown "from the date of destruction." Not from the start of repairs. When there is no pressure on the landlord to start and finish re-constructing the dentist's space, who knows when repairs might ever be done. Repairs to a dentist's disaster damaged treatment areas might only begin sporadically months after the disaster as the landlord mainly divides his repair effort and attention among those tenants who beforehand successfully negotiated business interruption time-limits.

Finally, the landlord's obligation to complete all needed repairs within the prescribed deadline should apply to insured casualties such as fire, and to any uninsured casualty such as a catastrophic flood that inundates and destroys the dental space. An agreed-on completion date allows a dentist to plan either to move back in by the 91<sup>st</sup> or 181<sup>st</sup> day (depending on whichever is specified in the agreement), or she/he could terminate the agreement and start again somewhere else with no further obligation to the current landlord.

## **Business Scams and Other Scams**

*Business scams* Business scams sometimes occur following an area-wide disaster (flood, tornado, hurricane, earthquake). A dentist who must make building repairs following a disaster should in most cases, demand a written estimate and a contract from repairmen. In particular, be cautious of strangers who show up unsolicited at your door and offer to clean up or repair your disaster-damaged building for payment. Various rip-offs can take advantage of susceptible business owners who are too trusting of strangers following a disaster. Unscrupulous repairmen might ask for large deposits and then not perform the work. Or they might produce shoddy work that is unsafe or in violation of the local zoning ordinance. Other times, with a shortage of repair materials or workman, price gouging could follow in the wake of a disaster. If possible, it usually is a good idea to shop around for a repairman before you sign a contract. Ask colleagues for recommendations.

Compare costs and check references carefully. Determine for example, if workmen are properly insured at the construction company that you're considering. Call your local Better Business Bureau or Chamber of Commerce to inquire if there are any unresolved complaints involving the company or workman that you are considering for your disaster repair project.

*Charitable solicitation scams* The dentist might be contacted by telephone about donating money to a charity that aids stricken families following a disaster. If the dentist is in doubt about the authenticity of this or any other charity, or if the dentist feels that he/she has become the victim of a repair con artist or of a fraudulent solicitation, he/she should contact the community's consumer affairs office or the state's attorney general. An investigator that responds will likely need the following information about the perpetrator: company name, address and phone number; a statement about the circumstances of the alleged fraud, including a full description of what goods or services were involved; a copy of the contract; and a list of payments that were made (when and to whom).

*Advance fee loan scams* These kinds of scams are sometimes advertised through direct mail, television, radio, and newspapers following a catastrophe. In this scam, unscrupulous companies promise that they can guarantee repair loans to dentists regardless of a bad credit history, high debt ratio or bankruptcy, if paid a fee in advance. They get the dentist's payment to process the "loan" application but in return, the dentist might get nothing. Overnight, a fraudulent company could close, keep the dentist's payment and provide no service. In general, a dentist should probably avoid doing business with a company that says it will guarantee a re-building loan if paid a fee first.

*Credit card scams* Know with whom you are dealing. Avoid too-good-to-believe repair deals, especially from telephone strangers who first require a business owner to reveal his/her social security number, bank account information or credit card number in order to qualify. The callers' true intention might be to get your personal information in order to fraudulently make purchases or obtain cash for themselves.

## **Recovery and Continuity Planning**

Long before a disaster occurs, dentists should plan on how to recover from or to keep their practice open, if possible, following a disaster. Planning sessions with the dental team should be conducted in order to develop a business continuity and recovery section for your emergency action plan. The main purpose of your plan is to continue operations (continuity) despite a disaster or to get a closed dental practice re-opened (recovery) quickly following a disaster. In many instances for a small business, a circumstance that forces a prolonged closure of the business often dooms the business. Without a contingency plan, some businesses simply cannot get going soon enough following a disaster to retain their current customers and workers, conserve cash during the recovery process, or orchestrate the many complexities of re-building a badly damaged property that could include a decision to temporarily relocate the practice while repairs are made.

An essential component of disaster recovery is preparedness. In your written emergency action plan (discussed in Chapter One) you should have a section containing written responses and alternatives intended to anticipate, prevent or mitigate the expected effects from various natural or man-made disasters, including, if possible, the emotional stress on staff that might ensue.

Consider, for example, placing deeds, insurance documents, incorporation papers, employee contracts, etc. into a safety deposit box, the whereabouts of which is known to a trusted individual holding a key and instructions to open the box if the dentist dies or is disabled. Documents of this sort need to survive a disaster, whatever its nature, since they could be key to business resumption.

In disaster prone regions, a dentist might wish to consider contracting with a reputable clean up service from outside the immediate area before the probable disaster occurs. The selected contracting company should be willing and able to provide restoration services when and where you need it immediately following a disaster. Having a signed agreement with a repair service could help the dentist recover quicker and maintain revenue.

Recovery planning with the dental staff is not difficult and it is a good way to be ready for a major disaster that could close down the practice. Such planning is a three-fold activity that generally begins with analyzing the potential impact on the practice from various likely disaster scenarios and noting the practice's strengths and vulnerabilities. Secondly, a recovery strategy is developed to prepare for, combat or mitigate each likely event. In particular, the dentist might wish to anticipate what will be needed or affected during various kinds of crises, and then assign duties and responsibilities to staff that potentially might lessen the devastation to the dental practice, while shortening recovery time.

Finally, alternate recovery strategies should be devised that anticipate and estimate repair costs. The dentist's own insurance agent or company might be very helpful in reviewing portions of the plan. The agent's advice, for example, might help a dentist reduce obvious risks. Insurers usually can suggest appropriate coverage for the entire practice that is practical and realistic.

Keep in mind that your emergency action plan must evolve as circumstances change, with the highest priority of course, always given to safety. Review and update your disaster recovery plan at least annually or whenever there are changes in the telephone numbers or addresses of businesses and persons you intend to contact during or following an emergency. Flexibility, predictiveness, comprehensiveness and simplicity are the hallmark of good planning. Set concrete goals, identify resources, assign responsibilities, then actively manage your preparedness to eliminate or control as many of the risks as possible.

*Time sharing* Following a disaster, a temporary pre-arranged time-sharing arrangement (relocation plan) to occupy the off-hours in the office of a colleague might allow a dentist to resume at least partial patient care while repairs are being made to the dentist's own place of business. Arrangements for sharing expenses (electricity, supplies and janitorial services) could be apportioned based on usage.

The Council on Dental Practice distributes *Guidelines for the Development of Mutual Aid Agreements in Dentistry*. (Some publications of the Association involve a small charge that is greater for non-member dentists.) The information in this helpful publication, subject to local law, outlines many of the steps that a small group of dentists could take to develop a workable practice interruption agreement. Such an agreement if customized to the needs of the group, might be of benefit to a dentist operating alone whose dental building is severely damaged; of use in the event of sudden, debilitating illness or injury; or benefit a dentist's estate in the event of sudden disability or death. With regard to this last possibility, the Council can provide another helpful publication to a spouse, relative, friend or attorney who is tasked with closing a dental practice due to the death of the owner. That publication is called *Closing a Dental Practice: A Guide for the Retiring Dentist or Surviving Spouse*. Information on how to reach the Council and obtain either publication is in the **Resources** section at the back of the publication that you are now reading.

*Computer data restoration, recovery and reconstruction following a disaster* Dentists who use information systems to manage their practices should perform daily backups of system data. A flood, fire, or impact (a falling tree or flying debris, for instance) that destroys or damages computer workstations or servers could result in permanent data loss without reliable backups.

In addition, all system applications – the programs that access and manage the system's data – need to have current backups as well. Both data and applications backups should be stored offsite in a safe location – high, dry, and safe from fires or violent impacts. Most system vendors or their hardware suppliers can provide help with your backup routines.

It is important to regularly test all backup methods to ensure their reliability. Faulty backups can result in months of lost data.

These are common practices in many other industries, not just health care, and dental system vendors should understand these requirements and should be able to provide these capabilities. Talk with your system vendor about data backup and recovery if uncertain about the status of your data recovery plans.

Furthermore, the electronic health information security requirements of the Health Insurance Portability and Accountability Act of 1996 (HIPAA) include data backup and recovery provisions. Dentists who use electronic claims, eligibility inquiries, or other HIPAA standard electronic transactions **MUST** comply with these

provisions. These provisions include: a data backup plan, application backups, offsite storage of data and application backups, frequent backup testing, contingency planning including system restoration and data recovery, and documentation of these activities.

The ADA HIPAA Security Kit discusses these requirements in some detail and includes tips and strategies on meeting them. The HIPAA Security Kit is available from the ADA catalog (800 947-4746 or visit [www.adacatalog.org](http://www.adacatalog.org)).

*Federal disaster assistance* After a disaster, dentists should immediately contact their insurance carrier in order to report damage. Self-employed individuals, including dentists whose businesses are destroyed in a disaster and who usually are not eligible for unemployment assistance, might be eligible for federal Disaster Unemployment Assistance. Apply at a local unemployment office. Up to 26 weeks of financial assistance could be available to eligible persons.

General information, registration and assistance regarding federal disaster programs may be obtained by calling FEMA at 1-800-462-9029 (Monday through Saturday 8 A.M. to 6 P.M.). FEMA suggests that if a caller has not heard from the agency within two weeks, to call FEMA's Help line at 1-800-525-0321 (TTY 1-800-660-8005 for hearing-and speech-impaired).

*U.S. Small Business Administration ("SBA") loans* Businesses that are not fully insured may be eligible for low-interest, long-term loans from the SBA. A dentist may apply for a SBA loan to replace disaster-damaged real estate, inventory, equipment or other business assets. Up to \$1.5 million are available for losses not fully covered by insurance. Help with a SBA application is available from the government at 1-800-659-2955. A small business may also be eligible for an Economic Injury Disaster Loan ("EIDL") that can provide working capital loans to pay for necessities to resume a business following a disaster. An affected dental practice located contiguous to the declared counties can apply for a EIDL even if there is no structural damage to the business.

*Disaster assistance from the ADA Foundation* includes a loan program for those dentists whose offices have been damaged or destroyed by a disaster. Loan applications may be obtained from state dental societies or from the ADA Foundation office at 211 East Chicago Avenue, Chicago, IL 60611.

Another assistance program provided by the ADA Foundation is disaster grants to effected dentists and their families for their immediate needs such as for food, clothing and shelter. In addition, grants are available to organizations that provide dental services to disaster-affected communities. Grant applications may be obtained from state dental societies or from the ADA Foundation office. For additional information regarding the American Dental Association's disaster assistance programs, please call 312-440-2763.



# Resources

**NOTE:** To obtain information at some sites requires that you download and install the free Adobe Reader, available from <http://www.adobe.com/products/acrobat/readstep.html>. In other cases, at a website, information and/or URL could have changed or been deleted. To obtain the latest information, checking the root index may be helpful. Older information no longer on display at a website, can sometimes still be researched through an agency's archivist, if available. Check directly with the agency. Information was available online at the time of writing.

For more information about fire safety and protecting lives and property go to [www.usfa.fema.gov](http://www.usfa.fema.gov) on the web or write to:

**United States Fire Administration**  
Office of Fire Management Programs  
16825 South Seton Avenue  
Emmitsburg, MD 21727

For general program information or inquiries about the recommendations from the National Flood Insurance Program ("NFIP"). Call NFIP's toll-free number at 1-800-611-6123, ext. 29, or write to:

**Federal Emergency Management Agency**  
Federal Insurance Administration  
500 C Street S.W.  
Washington, DC 20472      <http://www.fema.gov>

## Disaster Planning Tools

"Emergency Management Guide for Business and Industry"  
<http://www.fema.gov/library/bizindex.shtm>

"A Disaster Planning Toolkit for the Small Business Owner"  
<http://www.ibhs.org/docs/openforbusiness.pdf>

Emergency action planning: **Occupational, Safety & Health Administration** <http://www.osha-slc.gov/SLTC/smallbusiness/sec10.html>

**Council on Dental Practice of the American Dental Association** can provide the following two publications mentioned in the text to members: *Guidelines for the Development of Mutual Aid Agreements in Dentistry*; the second publication is called *Closing a Dental Practice: A Guide for the Retiring Dentist or Surviving Spouse*. Some publications of the Association involve a small charge that is greater for non-member dentists. To request a copy, contact:

<b>Council on Dental Practice</b>	Telephone extension 2895
211 East Chicago Avenue	FAX 1-312-440-2924
Chicago, IL 60611	

**Material Safety Data Sheets** website:

<http://www.msdssearch.com/>

- MSDS-SEARCH, Inc.

## Bio-terrorism / Chemical Agents

The American Psychiatric Association and the American Medical Association respectively, have published online recommendations to help members of the public learn to live with the fear and anxiety caused by the threat of bioterrorism. This professional advice could help a dentist respond to patients.

<http://www.psych.org/disaster/bioterrorism102201.pdf> and for helping children <http://www.ama-assn.org/ama/pub/category/6174.html>

Interim Guidelines for Exposure Management (October 2001)  
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5042a1.htm>

### Mass Disaster training

- **American Board of Forensic Odontology, Inc.** is at <http://www.abfo.org/> The "ABFO" is a certifying board for forensic odontology. In 1995, the ABFO published guidelines concerning mass disaster teams and body identification. ABFO and the Council on Dental Practice together have co-sponsored forensic conferences at the American Dental Association in 1986, 1996 and 2001.
- **American Society of Forensic Odontology** <http://www.asfo.org>
- Benchmark training courses in forensic odontology are held each March in Washington, DC and in June at the University of Texas - San Antonio.

#### **Armed Forces Institute of Pathology (Forensic Dentistry Course)**

14th and Alaska Street

Washington, DC 20306-6000

ph 202-782-2100

<http://www.afip.org>

#### **Southwest Symposium on Forensic Dentistry**

University of Texas Health Science Center

San Antonio, Dental School

ph 210-567-3177

For information: <http://smile.uthscsa.edu/cde/summer/Forensic.html>

### Reading regarding Mass Disaster & bioterrorism

- Jensen, Robert A. *Mass Fatality and Casualty Incidents: A Field Guide* CRC Press LLC, Boca Raton, Florida, 2000.
- "Dentistry's response to bioterrorism: A report of a consensus workshop," Guay, Albert. *Journal of American Dental Association*, Vol.133, September 2002.

### American Red Cross

- The nearest chapter of the American Red Cross can be found by contacting the National Headquarters, searching your local telephone directory, or you may go online <http://redcross.org/where/chapts.html>

#### **American National Red Cross**

18<sup>th</sup> and E Street, N.W.

Washington, D.C. 20006

OSHA Regional Offices nationwide:

<i>Region I</i>	
Boston, Ma	(617) 565-9860
<i>Region II</i>	
New York, NY	(212) 337-2378
<i>Region III</i>	
Philadelphia, PA	(215) 596-1201
<i>Region IV</i>	
Atlanta, GA	(404) 562-2300
<i>Region V</i>	
Chicago, IL	(312) 353-2220
<i>Region VI</i>	
Dallas, TX	(214)767-4731
<i>Region VII</i>	
Kansas City, MO	(816) 426-5861
<i>Region VIII</i>	
Denver, CO	(803) 844-3061
<i>Region IX</i>	
San Francisco, CA	(415) 975-4310
<i>Region X</i>	
Seattle, WA	(206) 553-5930

**OSHA Flooding ALERTS** of interest:

- Bulletin 2 *How to Protect Yourself When Cleaning Up After a Flood* FLOOD CLEANUP ALERT U.S. Department of Labor, Occupational Safety and Health Administration ("OSHA").  
Available on-line at <http://www.osha-slc.gov/OshDOC/FloodFacts.html>
- Bulletin 3 *How to Protect Yourself from Fungal Diseases* FLOOD CLEANUP ALERT U.S. Department of Labor, Occupational Safety and Health Administration ("OSHA").  
Available on-line at <http://www.osha-slc.gov/OshDoc/FloodFacts.html>
- Bulletin 4 *How to Protect Yourself from Asbestos Hazards* FLOOD CLEANUP ALERT U.S. Department of Labor, Occupational Safety and Health Administration ("OSHA").  
Available on-line at <http://www.osha-slc.gov/OshDoc/FloodFacts.html>

- Bulletin 5 *How to Protect Yourself from the Hazards of Lead Poisoning* FLOOD CLEANUP ALERT U.S. Department of Labor, Occupational Safety and Health Administration ("OSHA"). Available on-line at <http://www.osha-slc.aov/OshDoc/FloodFacts.html>

### Journal Articles on Workplace Violence:

- Goodman, Richard A. et al. Workplace-related homicide among health care workers in the United States, 1980 through 1990. *Journal of American Medical Association*, 1994 December; 272 (21): 1686-1688.
- Jayson, CJ Workplace violence? It can happen to you, doctor. *Northwest Dent.* 1998 Jul-Aug; 77(4):27-9.
- Stein, GM Increase your awareness of potential violence. *Northwest Dent* 1998 Sep-Oct; 77(5):29-30.
- White, Patricia and Maybaum, Jeannie Recognition and resolution of potential workplace violence. *The Dental Assistant* 1998 March/April; 67(2): 8-12.

**Workplace Violence Web site** <http://www.osha-slc.gov/SLTC/workplaceviolence>

### RECORDS MANAGEMENT

**The American Records Management Association ("ARMA")** at telephone 913-341-3808 sells the publication, *Handbook for Recovery of Water-Damaged Records*, " by Julia Niebuhr Eulenberg, ("ARMA" 1986), Catalog No. A4529; ISBN: 0-933887 17-5; 53 pp; soft cover. Price \$27.00 non-member (approximate cost at time of this publication). Other publications from ARMA that could be of interest are *Magnetic Diskettes Recovery Procedures -A Guideline*. ARMA International Standards Disaster Recovery Task Force (1987), Catalog No. A4544; ISBN 0-933887-21-3; 9 pp; soft cover; \$10 approximate non-member cost. And, *Developing a Disaster Recovery Plan for Business Records*. The ARMA online bookstore is at:

<http://commerce.shreve.net/armahqstore/category.php3?catid=010&catname=Contingency+Planning>

The **Northeast Document Conservation Center ("NEDCC")** Andover, Massachusetts is a nonprofit, regional conservation center with the mission of improving preservation programs at libraries and museums. They are recovery specialists for damaged documents.

### Northeast Document Conservation Center

100 Brickstone Square  
Andover, MA 01810  
Telephone: 978-470-1010  
[Http://www.nedcc.org](http://www.nedcc.org)

The **American Institute for Conservation of Historic & Artistic Works**, 1717 K Street, NW, Ste. 200, Washington, DC 20006; telephone 202-452-9545, 202-4529328 (FAX), e-mail [InfoAic@aol.com](mailto:InfoAic@aol.com) is a professional organization with web site: <http://palimpsest.stanford.edu/aic/>

Institute members are practicing conservators, conservation scientists, educators, collection care professionals, curators, etc. involved with the preservation of cultural property. This organization can supply you with a list of its members by specialty in your area who might be able to help you recover important water-damaged business records for a fee.

### **Commercial Conservation Services**

The following companies and services are not preferred or endorsed by the American Dental Association. They are listed for your convenience in identifying a potential vendor.

#### **BMS Catastrophe**

303 Arthur Street

Fort Worth, TX 76101

800-433-2940, or 817-332-2770; fax 817-332-6728 <http://www.bmscat.com/index.shtml>

Freeze-drying of damaged books or business records, and general restoration services including electronics, furniture and rugs.

#### **Munters Corporation - Moisture Control Services**

16 Hunt Road

Amesbury, MA 01913

800-433-6379, or 508-388-4900; fax 508-388-4939 <http://www.muntersamerica.com/>

Restoration service for water-damaged furniture, carpeting, wall coverings, books, business records. Dehumidification & vacuum freeze drying services for documents.

#### **ServePro**

P.O. Box 1978

575 Airport Boulevard

Gallatin, TN 37066

800/ServPro (737-8776)

615-451-0200; fax 615-451-0291 <http://www.servpro.com/>

Multi-location recovery services company for facilities and contents.

### **Psychological Stress In Dentistry**

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## **Emergency Planning & Disaster Recovery in the Dental Office**

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