

JOURNAL OF

Civil DEFENSE

VOLUME 41 ISSUE 3

SUMMER 2008

WATER **PURIFICATION**

EPA GUIDELINES TO DISINFECT YOUR

DRINKING **WATER**

PERSONAL **SANITATION**

in Times of Emergency

Terrorism Alert -
Know the Routines



WHAT IS MORE IMPORTANT THAN

CLEAN, SAFE WATER?

AQUA RAIN

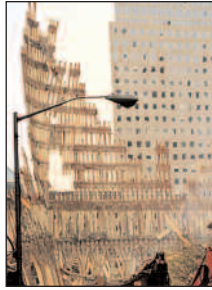
Ceramic Water Filtration
Systems for Emergencies

The AquaRain® Natural Water Filter will provide your family and loved ones with laboratory proven safe drinking water without electricity, without plumbing, and without pressure or chemical pre-treatments. Its patented space-age ceramic technology positively removes dangerous living organisms and harmful bacteria from your drinking water naturally, using microfiltration and gravity. Here is what may be the best part. The AquaRain® can produce quality drinking water for less than 2¢ per gallon!



AS LOW AS
\$184.96

VISIT OUR STORE AT
www.tacda.org
1-800-425-5397



IN THIS ISSUE

- 3 **Emergency Disinfection of Drinking Water**
How to's from the Environmental Protection Agency.
- 7 **Water Purification**
Landon Beales reveals how to use your spa or swimming pool sanitizer to treat unsafe drinking in an emergency.
- 8 **Salt Cracker Chlorine Solution Device for Water Disinfection**
Sid Ogden shares a simple and effective solution.
- 10 **Solar Water Disinfection (SODIS)**
Eliminate pathogens by exposing raw water to sunlight. Jonathan and Kylene Jones tell you how.
- 11 **Water Contamination**
Cresson Kearney separates myth from fact when water becomes contaminated by fallout.
- 12 **Urgent Sanitation**
Jonathan and Kylene Jones collect solutions to help you plan for sanitation needs during a crisis.
- 16 **Thinking Outside the Box: EMP Recognition Day**
The Heritage Foundation reveal how the threat of an Electro-Magnetic Pulse attack against the United States is credible and could result in the deaths of millions.
- 18 **Terrorism Alert - Know the Routines**
Jim Serre sheds light on the need for everyone in every neighborhood across the country to help with this effort.
- 20 **Take Your Medicine!**
In case of emergency, the most important element of our response to an emergency is easily forgotten. Rick G. Hofmann says take your medicine with you!

BOARD OF DIRECTORS

William Perkins, **President**
 Dr. Mary Pernicone, **Vice President**
 Kylene Jones, **Secretary**
 Dr. Gary Sandquist, **Treasurer**
 Dr. Gerald Looney
 Dr. Arthur Robinson
 Bronius Cikotas
 Jonathan Jones
 Jay Whimpey, PE

ADVISORS

Paul Seyfried
 Chuck Fenwick
 Rex Estes
 Art Kink
 Dr. Jane Orient
 Dr. David McKalip
 Rick Hofmann

OFFICE DIRECTORS

Sharon Packer
 (Executive Director/Editor)
 Polly Wood
 (Office Manager/Associate Editor)
TACDA
 11576 South State Street, Suite 502
 Draper, UT 84020

www.tacda.org
 info@tacda.org
 Office: (800) 425-5397
 Fax: (888) 425-5339

ISSN# 0740-5537



PRESIDENT'S MESSAGE



It was a great honor to be elected to serve the next term as President of TACDA. I will work diligently to deserve the trust you have placed in me.

Our past two presidents, Sharon and Jay, have done a superb job. They have made tremendous improvements in TACDA and set the performance bar very high for future presidents. I will be depending on both of them for advice and assistance.

TACDA was formed over 40 years ago. It was started to help inform us of the threats facing America and to educate us on how to deal with those threats. There are even more dangers facing us today than in the 1960's. Today we need to not only worry about Russia and China, but North Korea, Pakistan, Iran, and the list of terrorist states is too long to list.

The past few weeks have been a wake-up call for America. Russia's invasion of Georgia may be the beginning of a new Cold War. The world is changing and the threats to the United States are changing constantly. The challenge for our membership is to work together to educate and help our country be prepared for whatever happens.

We encourage all members who have any ideas on how to improve our overall effectiveness to share those ideas with us. Please continue to get your family and friends involved with TACDA.

We always pray for the best – but prepare for the worst.

I am looking forward to working with all of you.

Respectfully,



William David Perkins
TACDA President

FROM THE EDITOR

We hope you have heeded the council in past issues to store ample drinking water and a year's supply of food. In this time of economic and natural disaster, it could very well save your life.

It is our pleasure to present the summer issue of the *Journal of Civil Defense*, consisting primarily of articles on 'Water and Sanitation'. Knowledge of these basic principals is essential to post event survival of all man-made and natural disasters. The first article is from the Environmental Protection Agency on Emergency Disinfection of Drinking Water. Please note their caution that if you are unable to boil your water, the addition of household bleach will kill some, but not all, types of disease causing organisms. The Giardia cyst is particularly difficult to destroy. It is my understanding that the use of iodine crystals is very effective against these organisms. However, the use of iodine tablets, tincture of iodine or medicinal iodine is not as effective as household bleach.

We also try to include some information in each journal on Weapons of Mass Destruction. The appalling lack of knowledge by the masses of the danger of EMP is a great concern to us. We were impressed with the innovative suggestion by the Heritage Foundation to have an "EMP Recognition Day". It would be a unique and effective way to bring this terrible threat to the attention of the country. We included this report in our entry for "Thinking Outside the Box".

A recent report from the federal Commission to Assess the Threat to the United States from EMP should be cause for great alarm to every citizen of our country. Our next issue will include a consolidation of this 200-page report. The entire report can be downloaded from their web site, <http://www.empcommission.org>.

We enjoy hearing from you. If you have any ideas or comments, just email me at info@tacda.org.

I know that correct principles, both spiritual and physical, will be rewarded. There is great peace and blessings for those that prepare.



Sharon Packer
Editor



Emergency Disinfection of

Drinking Water

Guidelines from the
Environmental Protection Agency

USE ONLY WATER THAT HAS BEEN PROPERLY DISINFECTED FOR DRINKING, COOKING, MAKING ANY PREPARED DRINK, OR FOR BRUSHING TEETH

1. Use bottled water that has not been exposed to flood waters if it is available.
2. If you don't have bottled water, you should boil water to make it safe. Boiling water will kill most types of disease-causing organisms that may be present. If the water is cloudy, filter it through clean cloths or allow it to settle, and draw off the clear water for boiling. Boil the water for one minute, let it cool, and store it in clean containers with covers.
3. If you can't boil water, you can disinfect it using household bleach. Bleach will kill some, but not all, types of disease-causing organisms that may be in the water. If the water is cloudy, filter it through clean cloths or allow it to settle, and draw off the clear water for disinfection. Add 1/8 teaspoon (or eight drops) of regular, unscented, liquid household bleach for each gallon of water, stir it well and let it stand for 30 minutes before you use it. Store disinfected water in clean containers with covers.
4. If you have a well that has been flooded, the water should be tested and disinfected after flood waters recede. If you suspect that your well may be contaminated, contact your local or state health department or agriculture extension agent for specific advice. (U.S. federal agencies and the Red Cross recommend these same four steps to disinfect drinking water in an emergency. Please, read the text below for important details about disinfection.)

In times of crisis, follow advice from local officials.

Local health departments or public water systems may urge consumers to use more caution or to follow additional measures than the information provided here.

Look for other sources of potable water in and around your home.

When your home water supply is interrupted by natural or other forms of disaster, you can obtain limited amounts of water by draining your hot water tank or melting ice cubes. In most cases, well water is the preferred source of drinking water. If it is not available and river or lake water must be used, avoid sources containing floating material and water with a dark color or an odor. Generally, flowing water is better quality than stagnant water.

Examine the physical condition of the water.

When emergency disinfection is necessary, disinfectants are less effective in cloudy, murky or colored water. Filter murky or colored water through clean cloths or allow it to settle. It is better to both settle and filter. After filtering until it is clear, or allowing all dirt and other particles to settle, draw off the clean and clear water for disinfection. Water prepared for disinfection should be stored only in clean,



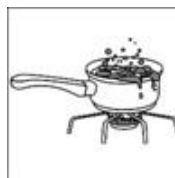
tightly covered, containers, not subject to corrosion.

Choose a disinfection method.

Boiling and chemical treatment are two general methods used to effectively disinfect small quantities of filtered and settled water.

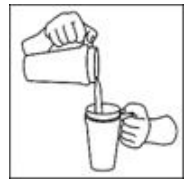
Boiling is the surest method to make water safe to drink and kill disease-causing microorganisms like *Giardia lamblia* and *Cryptosporidium*, which are frequently found in rivers and lakes.

These disease-causing organisms are less likely to occur in well water (as long as it has not been affected by flood waters).



If not treated properly and neutralized, *Giardia* may cause diarrhea, fatigue, and cramps after ingestion. *Cryptosporidium* is highly resistant to disinfection. It may cause diarrhea, nausea and/or stomach cramps. People with severely weakened immune systems are likely to have

more severe and more persistent symptoms than healthy individuals. Boil filtered and settled water vigorously for one minute (at altitudes above one mile, boil for three minutes). To improve the flat taste of boiled water, aerate it by pouring it back and forth from one container to another and allow it to stand for a few hours, or add a pinch of salt for each quart or liter of water boiled.



When boiling is not practical, certain chemicals will kill most harmful or disease-causing organisms.



For chemical disinfection to be effective, the water must be filtered and settled first. Chlorine and iodine are the two chemicals commonly used to treat water. They are somewhat effective in protecting against exposure to Giardia, but may not be effective in controlling more resistant organisms like Cryptosporidium. Chlorine is generally more effective than iodine in controlling Giardia, and both disinfectants work much better in warm water.

- ◆ You can use a non-scented, household chlorine bleach that contains a chlorine compound to disinfect water.

Do not use non-chlorine bleach to disinfect water. Typically, household chlorine bleaches will be 5.25% available chlorine. Follow the procedure written on the label. When the necessary



procedure is not given, find the percentage of available chlorine on the label and use the information in the following table as a guide. (Remember, 1/8 teaspoon and eight drops are about the same quantity.)

Mix the treated water thoroughly and allow it to stand, preferably covered, for 30 minutes. The water should have a slight chlorine odor. If not, repeat the dosage and allow the water to stand for an additional 15 minutes. If the treated water has too strong a chlorine taste, allow the water to stand exposed to the air for a few hours or pour it from one clean container to another several times.

- ◆ You can use granular calcium hypochlorite to disinfect water. Add and dissolve one heaping teaspoon of high-test granular calcium hypochlorite (approximately 1/4 ounce) for each two gallons of water, or five milliliters (approximately seven grams) per 7.5 liters of water.

The mixture will produce a stock chlorine solution of approximately 500 milligrams per liter, since the calcium hypochlorite has available chlorine equal to 70 percent of its weight. To disinfect water, add the chlorine solution in the ratio

If boiling is not possible, chemical disinfection of filtered and settled water collected from a well, spring, river, or other surface water body will still provide some health benefits and is better than no treatment at all.

of one part of chlorine solution to each 100 parts of water to be treated. This is roughly equal to adding one pint (16 ounces) of stock chlorine to each 12.5 gallons of water or (approximately 1/2 liter to 50 liters of water) to be disinfected. To remove any objectionable chlorine odor, aerate the disinfected water by pouring it back and forth from one clean container to another.

- ◆ You can use chlorine tablets to disinfect filtered and settled water. Chlorine tablets containing the necessary dosage for drinking water disinfection can be purchased in a commercially prepared form. These tablets are available from drug and sporting goods stores and should be used as stated in the instructions. When instructions are not available, use one tablet for each quart or liter of water to be purified.
- ◆ You can use tincture of iodine to disinfect filtered and settled water. Common household iodine from the medicine chest or first aid kit may be used to disinfect water. Add five drops of two percent U.S. or your country's approved Pharmacopoeia tincture of iodine to each quart or liter of clear water. For cloudy water add ten drops and let the solution stand for at least 30 minutes.
- ◆ You can use iodine tablets to disinfect filtered and settled water. Purchase commercially prepared iodine tablets containing the necessary dosage for drinking water disinfection at drug and sporting goods stores. Use as stated in instructions. When instructions are not available, use one tablet for each quart or liter of filtered and settled water to be purified. ●

Use only water that has been properly disinfected for drinking, cooking, making any prepared drink, or brushing teeth.

Available Chlorine	Drops per Quart / Gallon of Clear Water	Drops per Liter of Clear Water
1%	10 per quart/ 40 per gallon	10 per liter
4-6%	2 per quart / 8 per gallon (1/8 teaspoon)	2 per liter
7-10%	1 per quart / 4 per gallon	1 per liter
(If the strength of the bleach is unknown, add ten drops per quart or liter of filtered and settled water. Double the amount of chlorine for cloudy, murky or colored water or water that is extremely cold.)		



PERSONAL EVACUATION KIT I (PEK1)

Designed to assist persons evacuating a building in the event of a disaster or emergency situation, and offers the following features: High Visibility Pack easily located during an emergency. Contains essential emergency items for an evacuation.

Can be easily carried by the attached shoulder strap and can be customized for schools and dormitories as well as hospitals and hotels.

Personal Evacuation Kit includes:

- Disposable NIOSH*-approved N100 particulate respirator (proven 99.97% effective)
- Heavy-duty aluminum flashlight
- Chemical light stick provides 12 hours of continuous glow
- High intensity whistle is the loudest whistle manufactured
- 2 packages of purified drinking water, 4.225 oz per package
- Thermal blanket retains 90% of body heat
- 33 piece first aid kit

Special Price








\$15.95

plus shipping

www.tacda.org
1-800-425-5397

Limited quantities available, call our toll free number to get yours today

SUMMARY OF KEY POINTS

Filter murky or colored water through clean cloths or allow it to settle. It is better to both settle and filter.	
Boiling is the surest method to make water safe to drink and kill disease-causing microorganisms like Giardia lamblia and Cryptosporidium, which are frequently found in rivers and lakes.	
To improve the flat taste of boiled water, aerate it by pouring it back and forth from one container to another and allow it to stand for a few hours, or add a pinch of salt for each quart or liter of water boiled.	
When boiling is not practical, certain chemicals will kill most harmful or disease-causing organisms. Chlorine (in the form of unscented bleach) and iodine are the two chemicals commonly used to treat water.	
You can use a non-scented, household chlorine bleach that contains a chlorine compound to disinfect water. (Remember, 1/8 teaspoon and eight drops are about the same quantity.)	
You can use tincture of iodine to disinfect filtered and settled water. Common household iodine from the medicine chest or first aid kit may be used to disinfect water.	
Tincture of iodine. For cloudy water add ten drops and let the solution stand for at least 30 minutes.	

Water Purification

By Dr. Landon Beales

Is it safe to use your spa/swimming pool sanitizer (sodium dichloro-striazinetrione – also known as dichloro isocyan uric acid or dichlor or troclorene) as an agent for the chlorinating treatment of unsafe drinking water in an emergency?

ADVANTAGES

- It is relatively inexpensive and is also the active ingredient in some household cleansers.
- It can be stored for long periods of time in its granular form compared with standard liquid bleach (sodium hypochlorite 5%) which loses potency after one year.

DISADVANTAGES

- The handling and storing by inexperienced users can be dangerous because of its toxicity, corrosiveness and potential for release of deadly fumes (gases) when mixed with other cleaning agents such as ammonia.
- The dangerous gases released with combustion (such as in a fire, etc) is also a concern.
- Its innocuous looking appearance can be misleading and lead to dangerous exposure.

The granules are rather large and difficult to measure in small, accurate amounts unless one has a sensitive scale. The suggested amount of 1/2 tsp per 50 gal. of water to produce a chlorine concentration of three to five ppm would be difficult to equate reliably to an amount needed to produce 1.0 ppm in smaller quantities of water such as one gallon. 1.0 ppm is the average amount of chlorine in municipal water supplies.

In addition to being hazardous under certain conditions, the compound or its residue after hydration may react with plastic water storage containers with the possible production of unknown secondary compounds which may be dangerous as well. Definitive information about this is unavailable at this point.

The compound is not NSF approved for drinking water use. However, the military apparently has available a tablet with "dichlor" and alum (used as a flocculating agent) mixed together

for treating small amounts of drinking water. Also, Katadyne Co. markets "micropur" tablets containing sodium chlorite and a "dichlor" like compound for treating one quart of water per tablet. However, after adding a tablet to the water, there is a four hour waiting period before drinking. The tablets also cost 35 to 50 cents a piece and have a two year shelf life, so aren't well suited for longer term storage.

Using chlorination as the only method of water purification has limitations. Some bacteria, algae and parasites (cryptosporidium and giardia) can grow in chlorinated water (iodine is more effective than chlorine) and so not utilizing additional procedures can produce a false sense of security.

GENERALIZATIONS

- A. With the above considerations in mind, it appears that the liquid "bleach" chlorination or iodination using iodine crystals or tincture of iodine are more accurate, safe and inexpensive ways of treating unsafe water in an emergency than is the granular "dichlor" method.
- B. Passing the treated water through an adequate activated charcoal filter to remove chlorine, iodine or the "dichlor" chemical, if used, is an additional and recommended safety precaution. (Please see other information on purification of unsafe water by this contributor.*)
- C. If nothing else is available, in an emergency, the spa/swimming pool sanitizes treated water is safer to drink than contaminated water with no treatment at all. ●

Sources of information in addition to the internet include: Randy Williams, Salt Lake County Health Department Division of Water Quality, Jay Whimpey, Chemical engineer and board member of the American Civil Defense Association, Martin Chamberlain, Ph.D. (Biology), *Landon Beales, M.D.



Salt Cracker Chlorine Solution Device for

WATER DISINFECTION

By Sid Ogden

There is a relatively simple, safe, and effective device that can create a chlorine solution for water disinfection using a salt water solution and a modest amount of electrical current. The device would be very useful in disaster situations where drinking water would have to be disinfected before use. It would eliminate the need to store large amounts of chlorine bleach solutions and the concern that bleach loses potency over time.

The device works on a very simple principle, the electrolytic decomposition of a sodium chloride solution to form active chlorine using a DC electrical source. The device is configured such that it is very easy to determine when the reaction is at completion. Once the chlorine solution is ready the disinfection process uses the solution to kill microorganisms in water and thereby makes it safe to drink. There are devices sold on the commercial market for campers and backpackers that are somewhat smaller and designed to treat a smaller amount of water. This device should be able to treat a 55-gallon drum full of water with one charge of water of the unit. The overall time for preparing the solution is less than a couple of hours using a 30-watt solar panel in full sun.

Operating Instructions

Step 1: Prepare a saturated salt solution by placing one-half cup of table salt in one cup room temperature water and stir for several minutes. There should be some salt crystals left at the bottom of the container after stirring.

Step 2: Charge the electrolytic cell by tipping the unit until the open pipe is near vertical and the closed pipe is horizontal and pouring roughly one-half cup of the saturated salt solution into the open end of the pipe until the liquid level is at the base of the open pipe and the closed pipe is full. Let the unit tip back until both pipes are at a 45° angle and the apparatus is setting level on its base. The liq-

uid should remain mostly in the closed pipe end if it is sealed appropriately.

Step 3: Perform the electrolytic process by connecting a DC current source that is limited to roughly three amperes to the electrodes at the base of the apparatus. The positive lead should be connected to the electrode on the closed pipe side. Chlorine gas will be formed at the closed side and the liquid level will drop on the closed side and will rise on the open side over the course of about one hour. Once the liquid level on the open side ceases to rise and is near the top the reaction is complete. If a 12-volt battery is to be used as the current source, roughly 20 feet of 16-gauge wire should be used on each lead to connect the unit in order to limit current flow and prevent overheat-

ing of the apparatus. The PVC pipe is only rated to 140°F

Step 4: Use the chlorine solution as you would a 5% chlorine bleach solution. The full charge of solution will be strong enough to disinfect an entire 55-gallon drum of water bringing it to roughly 5 parts-per-million chlorine concentration. Add the full charge to a maximum of a full drum of water and seal the drum completely and wait several hours or even to the next day before using. Move the drum around after sealing to mix the contents. The drum of water could actually be stored indefinitely in this condition before use.

Apparatus Construction

The apparatus is constructed of 3/4 inch

PVC piping with at least the open pipe side using clear PVC to make it easier to see the liquid level and determine reaction completion. The base of the apparatus can be custom designed by the user but the parts are listed here. Most of the parts are available through McMaster-Carr company that can be contacted at mcmaster.com. The unit is assembled using normal PVC primer and glue available at most plumbing supply stores and the copper-coated graphite gouge rods are available at most welding supply stores. A hacksaw will be required to cut the pipes to length and for cutting the gouge rods. A drill will be required to secure the PVC fittings to the base and to drill out the compression fittings to accept the silicon tubing over the gouge rods. The parts list is included below. ●

“SALT CRACKER ELECTROLYTIC CHLORINE SOLUTION APPARATUS”

Part Description (number required)	McMaster Part# (Cost)
Sch 40 PVC cross 3/4 inch (1-required)	4880K243 (\$2.42 ea.)
Sch 40 PVC Clear Pipe 3/4 inch (13.5 inches)	49035K24 (\$14.37 per 8 foot stick minimum)
Polypropylene compression fitting (2-req)	5016K446 (\$10.95 per package of 10)
Sch 40 PVC 3/4X1/2 Coupling (2-req)	4880K201 (\$0.51 ea.)
Sch 40 PVC 3/4 inch pipe cap (1-req)	4880K52 (\$0.51 ea.)
Sch 40 PVC Slip-on-Tee 3/4X1/2X3/4 (2-req)	4880K105 (\$1.17 ea.)
PVC 1/2 inch hex head threaded plug (2-req)	4596K73 (\$1.79 ea.)
Sch 40 PVC 3/4 inch pipe (13.5 inches)	48925K12 (\$3.33 per 10 foot stick minimum)
Silicon rubber tubing (NSF-51 Soft) (2"req)	3038K17 (\$0.64 per foot in 5,10,or 25')
Carbon gouging electrodes (2 3-inch pieces)	7979A43 (\$6.03 per package of 10 12-inch rods)
1/4 inch bolt, nut, and lock washer (2 req)	
3/4" plywood 7 3/4 inch by 7 3/4 inch square (2 required)	
Grabber screws 1 3/4 inch (3 required)	

The base is assembled by screwing edge of one of the plywood pieces to the edge of the other piece. The slip-on-tees are secured to the base using the 1/4 inch bolts and drilling through the hex headed pipe plugs and the back of the base and then bolting them on to the back of the base using the 1/4 inch bolts. The rest of the PVC apparatus is assembled as shown in the picture with the two 13.5" pieces of pipe connected to the PVC cross on adjacent ends and the two couplers on the other two sides of the Tee. The compression fittings will have to be drilled out a little to allow the electrodes with the silicon tubing covering to fit in the fitting.



Solar Water Disinfection (SODIS)

By Jonathan B. and Kylene Anne Jones

The sun is amazing! Did you know you can eliminate pathogens which cause water-borne diseases by placing raw water in small transparent containers and exposing them to sunlight? This method, referred to as SODIS, is saving millions of lives in over 20 developing countries by reducing the risk of water-borne diseases. It is definitely worth exploring the possibilities as they apply to emergency preparedness.

During solar water disinfection the sunlight inactivates pathogens that cause diarrhea. Contaminated water is placed into transparent plastic or glass bottles and exposed to full sunlight for five to six hours. The UV-A light irradiates the microorganisms while the infrared light heats the water. If the temperature of the water rises above 45 C the synergetic effect enhances the inactivation efficiency of SODIS. The result is safe drinking water.

Solar water disinfection will not remove chemicals, tastes, or smells. Nor will it treat large volumes of water. It requires relatively clear water. It must have some sun to work although good results may be achieved even on cold cloudy days with increased exposure.

Solar water disinfection can be achieved by following these simple guidelines:

Start with a clean, small, transparent container. Clear plastic water bottles, plastic soda bottles (1-2 liter), or glass jars

with water tight lids work well. Food grade plastic containers made from polyethylene terephthalate (PET) are preferable. Handle bottles carefully as scratches decrease the effectiveness. Glass works great, doesn't scratch easily, but is breakable. Containers that are ten cm wide or smaller work best.

Commercially produced bags and bottles are available that have a black lower surface. The dark color induces a temperature gradient which causes the water to circulate within the container and improves inactivation efficiency. Make your own by painting half of the bottle side black. Exposure should occur with black side down! Similar results may be achieved by placing bottle on a firm dark surface during exposure.

Fill the container with the cleanest water available. Filter turbid water through clean towels, coffee filters, or commercial filter to remove debris. Water can be allowed to sit until particles settle to the bottom. Pour clean water off the top into a clean bottle. Efficiency is increased by exposing oxygen saturated water to sunlight. Aeration may be easily achieved by partially filling bottle and shaking it vigorously. Bottle should be completely filled before exposure. Stagnant water from ponds, cisterns, etc. should be aerated to enhance the inactivation of microorganisms.

Expose water bottle to sunlight by placing the bottle on its side. Optimal conditions with a clear, or partly cloudy

sky, will produce disinfected water in five to six hours. If the sky is completely covered with clouds the water bottles will need to be exposed for two consecutive days for successful disinfection. During periods of stormy weather, alternative forms of disinfection should be used such as boiling or chemical disinfection.

Does this sound too good to be true? We thought so until we began researching and found significant research proving SODIS an effective way to disinfect water.

Several factors contribute to the death of microorganisms and pathogens including; light, temperature, nutrition, humidity, and time. Most pathogens cannot grow outside the human body with a few exceptions like salmonella. This method of disinfection is amazingly simple and reliable if applied correctly. Be sure to follow these simple guidelines for successful disinfection:

Use appropriate transparent contain-

Sources of Water After a Nuclear Attack

(Consolidated from
Nuclear War
Survival Skills)

Neither fallout particles nor dissolved radioactive elements or compounds can be removed from water by chemical disinfection or boiling. Before a supply of stored drinking water has been exhausted, other sources should be located. All uncovered water will be contaminated to a certain degree. Consider the following sources (listed in decreasing order of safety).



ers on a dark surface. Concrete and other light-colored surfaces do not produce optimal results. Exposure on dark surfaces, corrugated zinc or tile roofs, etc. increase efficiency and are more likely to insure disinfection.

Always place bottle horizontally to maximize exposure. Black side goes on the bottom if using painted bottle.

Start with the cleanest water possible. Aerate water for optimal results. Expose to full sun for five to six hours. Do not allow bottle to be shaded. Exposure time may be shorted if temperature reaches 50° C. Once 50° C only one hour of additional exposure is required. If sky is covered with clouds expose for two consecutive days. Bring water indoors and allow to cool completely before drinking.

Does this sound too good to be true? We thought so until we began researching and found significant research proving SODIS an effective way to disinfect water. Further information may be obtained at www.SODIS.ch along with links to many research studies on the effectiveness of solar water disinfection. While this may be a little new to many of us, for others it is a way of life. SODIS just may be a good alternative to using iodine, chlorine, or boiling after using a good filter. You may never need to worry about water borne pathogens again if you have a little sunshine, a transparent bottle, raw water, and understand the principles behind solar water disinfection. ●

- Water from deep wells and covered water tanks.
- Water from covered seepage pits or shallow hand-dug wells. This water is usually safe IF fallout contaminated surface water has been prevented from entering by the use of waterproof coverings.
- Water from deep lakes (fallout particles settle to the bottom more rapidly in deep lakes than in shallow ponds).
- Streams (best used after the first few heavy rains following the deposit of fallout).
- Shallow ponds (must be filtered through earthen filters).
- Water obtained from melting snow contaminated with fallout (avoid using this water for drinking or cooking).

Water Contamination by Fallout

By Cresson Kearney

Myth: So much food and water will be poisoned by fallout that people will starve and die even in fallout areas where there is enough food and water.

Fact: If the fallout particles do not become mixed with the parts of food that are eaten, no harm is done. Food and water in dust-tight containers are not contaminated by fallout radiation. Peeling fruits and vegetables removes essentially all fallout, as does removing the uppermost several inches of stored grain onto which fallout particles have fallen. Water from many sources - such as deep wells and covered reservoirs, tanks, and containers - would not be contaminated. Even water containing dissolved radioactive elements and compounds can be made safe for drinking by simply filtering it through earth, as described in Nuclear War Survival Skills, p 73.



URGENT Sanitation

By Jonathan B. & Kylene Anne Jones

A magnitude 7.5 earthquake has struck your area. All utilities have been interrupted and it may take months to restore them. An Electromagnetic Pulse (EMP) has crippled our country leaving most without basic utilities. A pandemic has incapacitated a significant portion of the population, crippling the infrastructure due to lack of manpower and leaving you without utilities for the duration. Pick a scenario or create your own. The result is the same. What are you going to do without water, sanitation, and garbage pick-up? The leading cause of illness and death in both natural and man-made disasters is inadequate sanitation, poor hygiene practice, and contaminated and insufficient water supplies.

In this article, we will focus on critically important sanitation practices. Due to the nature of this subject, or perhaps

because we have become spoiled, we often neglect thinking and planning for sanitation needs in our preparedness efforts. Yet, it just might make the difference between life and death. Consider the following information as you plan for the sanitation needs of your family:

PERSONAL SANITATION

It is vitally important to maintain good hygiene in an emergency situation. Use good standards of cleanliness including; brushing your teeth, washing your face, combing your hair, showering/bathing or washing your body with a clean wet cloth (or baby wipes) if water is scarce. Remember to wash your hands! Good personal hygiene will help prevent the spread of disease and help maintain personal health and comfort.



Your household toilet can be easily converted to a port-a-potty in an emergency and provide a familiar, inexpensive toilet option. Turn off the water supply to the toilet tank, then empty the toilet bowl. Lift the lid and seat. Place a garbage bag in the bowl and duct tape the edges around the back and sides of the bowl. Use the toilet as usual. Pour a small amount of disinfectant into the bag after each use to help prevent the spread of germs and disease. The bag may be used several times before changing.

BASIC SANITATION KITS

Sanitation kits will vary from person to person depending on individual needs. Here are a few ideas: lots of toilet paper, feminine products, sanitizing chemicals, plastic buckets (with tight-fitting lids), a variety of garbage bags, disposable gloves, duct tape, disinfecting wipes, hand sanitizer, baby wipes, spray deodorizer, toothbrush and toothpaste, and soap. There are many other helpful products you can add to this list. This list is only a place to begin. Personalize your sanitation kits to the members of your family. Remember to include items for special needs such as diapers.

SOLAR SHOWERS

Solar showers are inexpensive and can provide a much needed warm shower by simply exposing the black shower bag to the sun for a few hours. While not a necessity, a warm shower can make life worth living.

SHOWER IN A BOX

This is a good option when water is scarce. Baby wipes are a great way to take a sponge bath. Wipes are relatively inexpensive and have a long shelf life. They have many uses and can be discarded after use, preventing additional laundry. Regular bathing, even with baby wipes, can prevent the spread of germs, make others comfortable around you, and prevent sores from developing.

WASTE DISPOSAL

We only need to look at the garbage cans of our neighbors (or perhaps ourselves), to realize most of us generate a significant amount of waste. What would you do if your faithful garbage man didn't come for weeks or possibly even months? Any type of disaster could easily disrupt that service. Garbage is a prime breeding ground for bacteria, insects, and rodents. It also attracts other unwanted pests. Develop a backup plan in the event you have to hold on to your garbage for awhile. Your plan may include some or

all of the following strategies:

WASTE SEPARATION

Separate cans, glass, and plastic from burnable items and wet garbage. Wet garbage breeds bacteria and draws insects and animals. Mixing garbage contaminates all of it. Reduce bulk by smashing cans, flattening boxes, and compacting whenever possible. Store lots of quality garbage bags. Trash cans or barrels with tight-fitting lids have many uses and might come in handy for storing garbage.

COMPOSTING

Establish a composting area away from your home as it will attract insects and flies. You can compost yard waste, kitchen scraps, shredded paper products, and cardboard. Do not compost: human waste, dog or cat waste, meat or grease, and poisons or other chemicals. Compost any manure from animals that do not eat meat. Turn your compost pile to facilitate decomposition. *Continues*

This will create a rich, dark soil loaded with nutrients for gardening.

TRASH BURNING

Burning is not preferable due to safety and environmental concerns, but may become necessary. Cereal boxes, paper plates, cardboard, etc. may be used to fuel small fires for cooking. Cooled ashes may be added to a compost pit or used to control odors in an outhouse. Use great caution when burning anything to ensure safety of people and property. Burn trash in appropriate conditions and locations. Do not burn plastic, Styrofoam or other items that release toxins when burned. Consider storing real paper plates instead of Styrofoam because they can be burned.

BURYING TRASH

A prolonged crisis may require some garbage to be buried. If this becomes necessary, bury garbage as far away from your home as possible. Dig a hole at least four feet deep. Cover with at least 18 inches of soil to prevent insect and animal infestation. Consider digging the hole and covering with a large piece of plywood to allow additional garbage to be added as needed. You may need to secure it with large rocks or heavy objects to pre-

vent animals from accessing it. Layering with soil, ashes, lime, or borax may help in controlling odors.

HUMAN WASTE DISPOSAL

Mother Nature's call can not be put off for long regardless of the nature of the emergency or crisis. In fact, these circumstances may actually make the call more frequent and intense! Take time to carefully consider these basic toilet options or explore more of your own. Purchase an inexpensive option immediately and work toward a nicer option as funds permit.

Each person generates approximately five gallons of human waste each week. This waste, if not managed properly, becomes a source of odor, illness, and other problems. Never throw human waste on the open ground. If no other alternative is available, bury it in deep trenches and cover with at least two-three feet of soil. Make sure to avoid burying in high water tables as it may contaminate the water supply. Consider the toilet options listed below, make a plan, and get the supplies needed to ensure you can safely manage the waste your family creates.

LUGGABLE LOU OR BUCKET TOILET

This may be a good option for a lightweight portable toilet that you can grab along with your 72 hour kit. Keep basic supplies inside so that it is ready to go - toilet paper, baby wipes, garbage bags, disinfecting wipes, feminine products, spray deodorizer, and chlorine bleach or sanitizing chemical. Line the bucket with a plastic garbage bag. Mix one cup liquid bleach (or sanitizing chemical) with two quarts of water and pour into the lined bucket. Add a little more disinfectant after each use. Change the bag when it is 1/3 - 1/2 full. Carefully tie the top and place in a larger lined can. Close the lid after

each use to control odors. This will definitely work for an emergency, however, the smell is offensive and it is not our favorite option.

Possible disinfectants (sanitizing chemicals) include: Enzyme 300 (made for use with Luggable Lou), Luggable Lou liner with bio-gel, sodium hydroxide (blue liquid in chemical toilets), liquid chlorine bleach, Pine Sol, ammonia (never mix ammonia with bleach!!), baking soda, alcohol, laundry detergent, or other disinfectant. Poo Powder or WAG bags are nice, but pricey solutions. The Poo Powder instantly solidifies to prevent messy spills and controls germs and odors. A WAG bag contains Poo Powder and may be used multiple times. The bag is engineered to break down in six to eight months to make disposal environmentally friendly. Some of these sanitizing chemicals work much better than others - the goal is to minimize odors and germs.

PERMANENT PORT-A-POTTY

Your household toilet can be easily converted to a port-a-potty in an emergency and provide a familiar, inexpensive toilet option. This option assumes that you have been able to stay in your home and do not have sewage backing up through your toilet.

Turn off the water supply to the toilet tank. Then empty the toilet bowl. Lift the lid and seat. Place a garbage bag in the bowl and duct tape the edges around the back and sides of the bowl. Use the toilet as usual. Pour a small amount of disinfectant into the bag after each use to help prevent the spread of germs and disease. You may want to add sawdust or Poo Powder to solidify liquids. The bag may be used several times before changing.

Change the bag by lifting the lid and seat. Carefully remove the bag by loosening the taped edges, twisting the edges of the bag together and seal the bag. Place an empty plastic bucket right next to the toilet and lift the bag into the bucket. Use this bucket for transport to avoid accidental spills. Place bag in a large bucket with a tight-fitting lid. Store outside if possible. Cover entire toilet with a 30 gallon trash bag to control odor. Air fresheners or room deodorizers may also be helpful.



Mother Nature's call can not be put off for long regardless of the nature of the emergency or crisis. In fact, these circumstances may actually make the call more frequent and intense!

CHEMICAL TOILETS

These toilets are a great option and are regularly used by boaters and campers. They use very little water and the chemicals help to keep the smell and spread of disease to a minimum. Be sure to store plastic buckets with tight-fitting lids to store waste until you can safely dispose of it. Be sure to store the appropriate chemicals for the toilet. The chemicals do have a limited shelf life. Check with the manufacturer.

TRENCH LATRINE

If an outdoor toilet becomes necessary, a trench latrine can be constructed in a short amount of time. Be sure to locate it away from the home and all water sources. Create some type of shelter to provide protection from the weather and for privacy. Dig a trench one foot wide by four feet long and two and a half feet deep. Add a little bit of soil or lime after each use to help control odor and flies. When the trench is filled within one foot of the surface, sprinkle with lime, fill with soil, and mound with an additional foot of soil. This toilet is used by squatting or straddling the trench.

DEEP PIT LATRINE

An extended crisis may require a more long term solution. A single-seat latrine may be built over a trench that is two feet wide by two-six feet long by six feet deep pit using available materials to create a shelter and seating area. Make sure the seating area is large enough to prevent it from collapsing into the pit. It is important to consider potential ground water contamination when locating a site or the depth of the latrine. Be sure to sprinkle with soil or lime after each use and before closing the pit.

COMPOSTING TOILET

Sometimes called biological toilet, dry toilet, or waterless toilet) - is frequently used in remote locations such as cabins. A composting toilet system converts human waste into a fertilizer or useable soil through the natural breakdown of organic matter back into its essential minerals. This compost is not safe for use on vegetable gardens. Composting toilets are very expensive, but use little or no water

and are nearly odorless.

SEPTIC SYSTEM

If you are fortunate enough to be on a septic system you may avoid the necessity for backup toilets if your system remains intact. Be sure to perform regular routine maintenance on your system. We recommend you still have a contingency plan in the event your system fails or you are required to evacuate.

STORAGE

In the event you are confined to a shelter, make sure you have buckets with tight-fitting lids for short-term storage of human waste. Remember to plan for five gallons of waste per week from each person per week. That can add up to a lot of buckets!

SEWAGE BACKFLOW

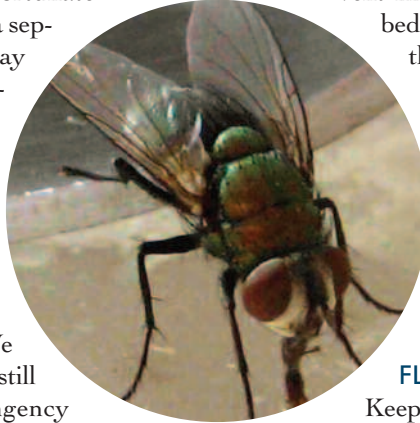
There may be a potential for sewage to backflow into your home in some emergency situations. If this occurs, you have most likely lost your home due to the potential of disease and the stench associated with raw sewage. Evaluate your risk and, if necessary, consider installing some type of back-flow prevention valve.

Pest Control

Sharing our space and provisions with disease-spreading pests can make any situation worse. Our precious supplies can be quickly contaminated if pests are not controlled. Pest control must be an important consideration in your sanitation planning.

INSECT CONTROL

Prevent breeding grounds by keeping the area clean. Standing water is a breeding



ground for mosquitoes, which are known vectors for the spread of diseases. Carefully package all food storage to prevent infestation. Use care to prevent bedding from being contaminated through poor personal sanitation. Don't stop doing laundry! The old saying, "Good night, sleep tight, don't let the bed bugs bite" was adopted for a reason. Store insect repellent and insecticides safely and away from foods.

FLY CONTROL

Keep area free from garbage and waste products. Cover food and clean dishes to prevent contamination by flies. Store fly swatters, fly strips, fly traps, etc. for use as needed. Actively strive to keep living area free from flies as they are prone to spread disease.

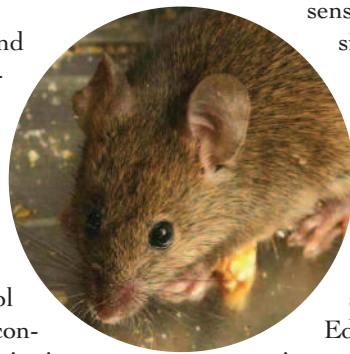
RODENT CONTROL

Keep storage areas clean and organized. Store traps and poisons to use if necessary. Take time to package food storage to prevent infestation. Rodents can quickly access foods stored in Mylar bags. Consider putting the Mylar bags in plastic buckets for extra protection. Food stored in boxes, bags, and Mylar bags are at risk of infestation. Storing food in #10 cans is a great way to protect the contents.

THE CHALLENGE

Good sanitation practices always make sense. However, in an emergency situation, it is especially important to implement good sanitation techniques. It can make the difference between sickness and health, and possibly even life and death.

Our challenge to you is to carefully think through the sanitation needs of your family. Educate family members as to the importance of good sanitation practice and how it applies to your family plan. Create a workable plan, set realistic goals, and get to work to accomplish those goals. We challenge you to do something TODAY!! ●





EMP Recognition Day

By Jena Baker McNeill
and James Jay Carafano
The Heritage Foundation | 9/17/2008

The threat of an Electro-Magnetic Pulse (EMP) attack against the United States is credible. Such a strike could have a devastating impact on the nation by disabling electrical systems, grinding the economy to a halt, and possibly resulting in the deaths of millions. Yet other than establishing a commission to study the problem and holding a handful of hearings, Congress has done virtually nothing to address the issue. Such inaction could change virtually overnight, however, if Congress held even one EMP Recognition Day.

THE DARKEST HOUR

An EMP attack is produced by detonat-

ing a nuclear weapon launched by a ballistic missile. Such a detonation—occurring high above the earth—produces a massive pulse of ionized particles that could damage many electrical and information systems. An attack would disrupt telecommunications, banking and finance, fuel and energy, food and water supplies, emergency and government services, and more, threatening millions of lives.

If, just for one day, Congress simulated even a fraction of the impact such an attack would have, the scope of the danger would be clear. Here is a short list of what could happen on EMP Recognition Day on the Hill. Congress could:

- **Close all cafeterias.** After an attack, transportation networks would grind to a halt and no food would be delivered.
- **Walk to work.** Traffic lights would no longer function, so all roads would be gridlocked. The computer systems operating mass transit would be inoperative.
- **Turn off members' Blackberries.** Satellites in low-earth and many of the communication support systems will be disabled. Devices such as Blackberries and GPS would not work.
- **Shut off the lights.** Critical computers that direct the national electrical grid would be inoperative.

Congress should take just these four steps for one day—and then all the members would understand the magnitude of the dangers posed by an EMP attack.

A DAY TO REMEMBER

In a speech on March 23, 1983, Ronald Reagan detailed his plans for the Strategic Defense Initiative (SDI). SDI was aimed at ensuring America's safety against a nuclear missile attack by imple-

menting land and space-based defense systems. Reagan's vision was never completely realized, but the missile threats against the United States have never dissipated, and the need for such a system grows more pressing. A little over 20 years later, a congressionally chartered commission led by Dr. William Graham released a report that detailed an unappreciated dimension of the missile problem: an EMP attack. Thus, March 23 would be an excellent candidate for Congress's EMP Recognition Day.

A CALL TO ACTION

EMP Recognition Day would be about more than putting Congress in the dark. It could promote several tasks the Congress could take now, including:

Fund comprehensive missile defense. Building a comprehensive missile defense system will allow our nation to intercept and destroy a missile bound for the United States regardless of the launch point or whether the attack is aimed at destroying a city or engaging in an EMP attack on the nation.

Demand the Administration develop a National Recovery Plan. In order to minimize lives lost and property destroyed, the United States needs a plan that will address its ability to recover quickly after an attack. The EMP Commission emphasized that our nation must first improve the infrastructure on which all other sectors are dependent, specifically citing electric power and telecommunications. This risk-based approach recognizes that certain infrastructure is key to post-EMP attack recovery. EMP should also be added to the list of 15 disaster scenarios.

Require more research on the EMP threat. More research is needed in order to ensure that the United States fully understands the scope of the danger and cost-effective counter measure.

Need for Congressional Action

Before Congress ends its session this year, its members should agree to make March 23 EMP Recognition Day. Even if Congress does not stop feeding its staff, turn off the lights, or hitchhike to work, simply recognizing the EMP threat would go a long way toward better preparing America for this grave threat. ●

Surviving the Hurricane Ike Experience

Portion of an email from a survivor of Hurricane Ike

I'm finally back on line! Our part of Houston was hard hit by strong winds and heavy rain. Lots of damage to buildings and infrastructure, including my house. We had no public services for nearly a week. Roads were blocked, and we had no access to food nor fuel, not to mention a thousand other items we daily take for granted. Our power has just been restored today!

I'm now the expert I never wanted to be! Here is what I learned about widespread disaster, mostly the hard way:

Weapons: Stick with weapons that are simple, hardy, and run under all conditions. You'll need more than just one. When they break, you won't be able to get them fixed any time soon. We have many street gangs here, and they were out, roaming. Heavily armed, we confronted several groups of looters, at gunpoint, and quickly ran them off. They weren't particularly heroic!

Ammunition: Have an adequate supply on hand. More than one neighbor frantically came to me and asked if I had any of this caliber or that!

Battery-Operated Radios: The only contact we had with the outside world

was via radio. We were isolated, but at least we had access to news and weather reports. Portable generators are wonderful, but they require lots of fuel, and power output is minimal.

Trauma Kits: Learn how to treat traumatic injuries and have the appropriate equipment on hand. I had to suture my wife's foot with four stitches. I had no pain killer, but I still had to do it. We had no access to hospitals, nor ambulances, nor medical care of any kind. We had to treat our own injuries. Have plenty of IBDs, alcohol, medical scissors, wide-spectrum, oral antibiotics, decongestants, and bandaids. You're going to need it all!

Food: Have a good supply of water, MREs, as well as canned goods, like corn, beans, rice. You'll need non-perishables a plenty. You're going to have to feed yourself and perhaps others. Who don't eat regularly, quickly become run down and despondent.

Fuel and warm clothing: Though is was not an issue for us (this time), you need a way to keep warm. Hypothermia is extremely dangerous and insidious.

Finally, and most important: Don't

wait to be rescued, and don't expect help any time soon. Make appropriate preparations now, and, when disaster strikes, act immediately! Don't sit around expecting someone else to feed you, get you to a safe place, keep you warm, treat your injuries, nor protect you from evil-doers. Who do are naive and self-deceptive, and typically don't live through it!

There is no "Book of Rules" that applies to situations like this. My neighbors and I are good and decent people, and we know right from wrong. We were not afraid to do what needed to be done to get us all through this.

We are now in the middle of putting our lives and possessions back in order, as best we can. We're toughing it out, separating wants from needs, and going forward!" None of us can know what fate has in store for us. To be willfully unprepared and naive is the ultimate personal irresponsibility!

Pandering politicians love to assure us, particularly in election years, that they plan on legislating all the uncertainties out of life. Never believe it. You're on your own! ●

Stocking Up on Socks & Underwear

Ron in Upstate New York: I recommend putting in a decent supply of socks and underwear for the whole family. One can get used to wearing old, worn out clothes in TEOTWAWKI (the end of the world as we know it), but socks and underwear can be like gold - to help one retain a bit of dignity and morale in a grim aftermath world. Ask any vet how important a pair of clean, fresh socks meant to them.

JWR Replies: In addition to dignity and morale, they are also crucial hygiene items. Every family member should have a three week supply. You never know when circumstances might force a delay in doing laundry. Watch diligently for seasonal sales advertised at discount stores. Also, for some reason tube socks are often sold at bargain prices at flea





Terrorism ALERT

Know the Routines

*by Jim Serre, Copyright © 2006
GetReadyGear.com*

People always wonder, what can I do as a citizen to help prevent terrorism. Most believe that they can have no impact or would even come into contact with people with terrorism on their mind. The Office of Homeland Security along with its regional offices is working closely with local, state, federal and international jurisdictions to prevent terrorism. But everyone in every neighborhood across the country needs to help with this effort.

While many argue "Nothing will ever happen here," the fact is that virtually every corner of America could be exposed to terrorist activities. We not only need to be alert to our country's high profile targets (e.g. transportation systems, water supplies, power plants, etc.) but we need to be vigilant in our own neighborhoods as well. Who would have suspected Pendleton, New York (Oklahoma

bomber Timothy McVeigh) or Lodi, California (suspected terrorist Hamid Hayat) or Lackawanna, N.Y (where a group of Americans of Yemeni descent pled guilty to terrorism charges) as locations where terrorist plots would be hatched? The reality is, there is no specific profile of a terrorist, but there are activities they engage in that may seem unusual to us. Noticing these unusual activities is where the citizenry can provide the most help to law enforcement in preventing domestic terrorism.

In our neighborhoods we are all aware of the subtle comings and goings of our neighbors. We know what time the construction worker across the street starts his diesel truck and heads to work. We know when our newspaper is delivered. We know what time the couple down the street walks their dog every night. We know when the mail is delivered and we know when we're expecting a package in the mail. We recognize delivery personnel at our office and where they park their vehicles. While many of us do not consciously think of these activities as routine, we are nonetheless aware of them. This is a key component of terrorism awareness.

Know the Routines – We are all encouraged to be alert as we go about our daily business. You should consciously learn the normal routines of your neighborhood, community and workplace. Understanding these routines will help you to spot anything out of the ordinary. When you do notice activities outside of the routine, be a little suspicious, not paranoid, but maintain a healthy suspicion until you're satisfied the activity is appropriate for the persons involved and the time of day. If you feel uncomfortable with the activity or unsure of the implications of the activity, contact your local law enforcement agency and discuss your observations with them. And remember; always let the trained professionals investigate the activity, never get involved with unknown subjects.

Take What You Hear Seriously – Unfortunately, in today's security climate, we must also be aware of what is said around us. While eavesdropping is never

polite, we often times can hear conversations around us. Certainly you can recall incidents where you could hear every word of someone talking nearby on their cell phone. Should you ever overhear or know of someone who has bragged or talked about plans to harm people or who claim membership in a terrorist or extremist organization, take it seriously and report what you know immediately to law enforcement. If you can, without being obvious, notice what the person or persons look like, did they leave in a car, which direction were they heading. Law enforcement will want this information to help their investigation. While the conversation could have been innocent enough, the part you overheard may have sounded suspicious. In any event, notify law enforcement and let them investigate to determine the validity of your concerns. It is better to err on the side of caution than to dismiss what you overheard as not probable in your neighborhood or community.

Travel Safe – In addition to being aware of your surroundings and routines at home and work, you need to be vigilant while traveling the country or world as well. As we learned in the late 60's and early 70's, making jokes about highjacking a plane in an airport is not appropriate. Today, few would even consider such a conversation in an airport. But you should still pay close attention to your fellow travelers for activities, actions or conversations that you don't feel are appropriate. Again, having a description of the individual to provide to airport security will be helpful. As long as your concerns are genuine, and you are truthful with the authorities, your identification of an "out-of-place" individual

will be appreciated.

Be Proactive, Get Involved – To better protect your neighborhood, get to know your neighbors. Consider forming a Neighborhood Watch group through your local law enforcement agency to strengthen your neighborhood against crime and make it a safer place to live. Such groups have strength in numbers that can provide many eyes on the lookout for suspicious activities or unusual conduct in your neighborhood. You might also consider taking Community Emergency Response Training (<http://www.citizencorps.gov/programs/cert.shtm>) from your local fire department. Such training will help you to assist your family and neighbors in the event of a local or statewide disaster when 1st responders may not be able to help you immediately.

Jim Serre has over 30 years experience in the business world. He currently volunteers for local Search & Rescue and CERT Units. Additionally, he is a qualified instructor for Neighborhood Emergency Training courses sponsored by the Office of Homeland Security. His knowledge of survival and preparedness skills make him uniquely qualified to design survival kits that can save your life. For more emergency preparedness information see their website at: www.getreadygear.com. ●





In Case of Emergency

Take Your Medicine!

*By Rick G. Hofmann
TACDA Advisory Board*

We mean it literally. In case of an emergency, take your medicine. That is – take it with you.

It seems to be a universal phenomenon – one that spans age, gender, race, education, financial well-being or physical ability: perhaps the most important element of our response to an emergency is also the most often neglected or forgotten – our medications.

Emergency response personnel across the country report that in evacuation situations, people tend to look toward the past, not to the future. They'll arrive at an emergency center clutching a family

heirloom, a wedding album or a family portrait but with no medications or any information about what – in some cases – their lives depend on.

The underlying reason is simple, a lack of planning. Responders tell us the average person or family is painfully unprepared for an emergency, whether that event is as immediate as a house fire or as large as a community-erasing natural disaster.

Lacking a plan, people react rather than respond, basing their actions on blind instinct rather than on intelligent preparation. So when they arrive at an emergency center they have a wedding picture – rather than the wedding picture and their heart medicine.

Make a Plan

A first and foremost concern is to make a plan. Then rehearse the plan, and fine tune it for success. The emergency plan should include a check list of what you need to take with you, including your cell phone, your emergency contact list, a change of clothes, personal needs, enough cash to get you through the next couple of days, and of course your most immediate need – your medications.

We understand that there may be several individuals in the home who need prescription medicines, so they may be scattered throughout the house: on the bed stand, in the medicine chest, by the sink, in the refrigerator, or even by the Lazy-Boy. People often put their meds where they can remember to take them. The key is to know where they are so you can gather them in a hurry.

Emergency Med Options

1. Be ready – save steps. In time of an emergency, every moment and every step counts. So make them count. There's no need to be running back and forth wondering how you're going to carry your meds if you already have a contingency plan in place.

One of the most straight forward ways to collect and carry your meds is to have a storage bag ready to go. Even His and Hers bags are fine. The point is, if you keep your prescriptions on the bed-stand, put a gallon sized zip-lock storage or freezer bag in the bed stand drawer. Then if you have to leave in a hurry, the bag is ready. Scoop your prescription bottles into the bag, and go.

If you keep the majority of your prescriptions in the bathroom medicine cabinet put the storage bag in the medicine chest. Folding the bag and putting a small rubber band around it will save space.

Note: Some emergency agencies have recommended keeping a small supply of your medications in your car in case you need to leave in a hurry. Physicians and pharmacists have said keeping medicines in your car is a remarkably bad idea. Some said it was "downright stupid."

First, you need those medications, fresh, on a daily basis. Second, the heat that builds up in a car in the summer destroys the potency of many pharmaceu-

ticals, rendering them useless.

2. Know what you're taking and who prescribed it. Write it down. Worse than arriving at an emergency destination without your medications is not knowing exactly what you or a loved one is taking, for what conditions, who prescribed it and where you get each prescription filled.

That information is critical to emergency workers and medical personnel, and perhaps to your personal survival.

So go through your bottles and write down every prescription, the exact dosage and instructions, the prescribing doctor and his/her city and phone number; and the pharmacy where it is being filled and its city and phone number. That way emergency workers or medical personnel at your destination can help get you the medications or refills you need.

So what do you do with that information? The first possibility would be to put it in your prescriptions go-bag. You might want to have all the information for all individuals in the house in each person's bag. That way, if one person forgets to grab his/her bag in the rush to leave, others in the household will have the critical information.

You might also want to write down any allergies, pharmaceutical allergies, or other conditions medical personnel may need to know - such as diabetes, a heart condition, or a recent surgery.

The second option might be to put the medications information in your purse or wallet. But that can be bulky. So you might want to put copies in your Go-Bags – the ones you have inside the hall closet ready to go in case you need them.

The Go-Bags should include a change of clothing, toothbrush toothpaste, soap, cloth and towel, some over the counter meds, some ready-to eat "trail" food to get you through, and your emergency contact list. You do have one ready, don't you?

You could use a very small font on your word processor to make the size of your list physically smaller to fit better in wallet or purse. But the doctors we've talked to about that option are universal in their concern that such lists may be too small for them to read. (Imagine that,

doctors worried about writing legibility).

Remote Storage

Another way to try to make sure your prescription information is accessible is to prepare the list, then e-mail it to a family member, preferably one out of the region you live in. That way, if you have to evacuate for any reason, you'll have a back-up copy available through someone on your emergency contact list.

We've also heard that some people who own their own web sites actually save their information in a hidden file on that site. The problem there, of course, is that in case of a wide spread emergency, Internet service might be interrupted. This is also a reason to consider the dangers of having your medical records online. On-line storage is growing in popularity, but, as expressed in the September edition of Scientific American, it's a practice with numerous flaws in both privacy and in accessibility in case of emergencies.

Conclusions

The medications you and your family are taking are important to your health and well being. That's a given. But in the urgency and confusion of an emergency, those medications are frequently left behind – compounding the difficulty of getting through the situation safely.

The first consideration is to be aware of where your family's prescription bottles are, and be ready to gather-and-go should the need arise.

You also need to know what you're taking, the dosage, and who prescribed it. With that information emergency and medical personnel can take action to make sure you have the medications you need.

You also should make sure your prescription and special needs information is available, accessible and legible should you ever need it. Whether you keep that information on a piece of paper in your wallet or purse, trusting it to a friend or family member, or if you choose a high-tech storage medium – having access to your key medical information can help ease the emergency. Or it just might save your life. ●

EMERGENCY MEDICAL INFORMATION AT YOUR FINGER TIPS

In an emergency, get out, be safe, be confident you'll have prescription and other key medical information with you.

PORTABLE - ACCESSIBLE:

- ◆ Prescription Data
- ◆ Critical Allergies
- ◆ Key Medical History
- ◆ Medical Images
- ◆ Emergency Contacts
- ... at Your Fingertips

Med-Data-Disks are personal sized computer disks which can give you or emergency medical personnel instant access to key information which may be critical to treating you and your family. And you only provide the information you want to provide.



SAFER, MORE DATA

Rather than just a single piece of information provided by a medical bracelet or pendant, Med-Data-Disks can provide doctors, nurses, emergency responders, or emergency room personnel with a variety of information they need to help take care of you and your family - including base-line EKGs and other digital images.

Emergencies happen all the time. Make sure you have your key medical information with you. Just in case.

For more information and a demo go to www.med-data-disks.com

Med-Data-Disks™

YOUR FAMILY'S CRITICAL MEDICAL DATA ALWAYS AT YOUR FINGERTIPS

TACDA

11576 S. State St.
Suite 502
Draper, UT 84020

www.tacda.org
info@tacda.org
Office: (800) 425-5397
Fax: (888) 425-5339

ISSN# 0740-5537