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PRESIDENT'S MESSAGE

There are at least three major issues confronting US Strategic Interests that have potential impact in the near future for members of TACDA as well as the US.

First: Russia and the Ukraine

There are 45,000 Russian troops on the Ukraine border and a convoy of 262 Russian trucks allegedly headed for the Ukraine with aid for pro-Russian separatists in Donetsk and Luhansk. If this convoy successfully arrives and actually transports troops and military supplies to the pro-Russian allies, the fighting in Ukraine will escalate. How will the US respond? Can Vladimir Putin return Ukraine to the former Soviet Block and seek more territories?

Second: Syria and the Islamic State (IS)

US refusal to arm secular opposition has embolden IS and permitted Russian and Iranian support for the Bashar al-Assad regime to remain in power. IS poses a particularly dangerous threat for international terrorism with possible future attacks upon the US homeland.

Third: Gaza and the PLO and Hamas

The Middle East always poses threats for regional and international instability. Israel is facing increasing criticism over military actions there, but the far greater civilian casualties in Syria are dismissed.

The world is becoming increasingly dangerous which portends vigilance by TACDA.

Gary M. Sandquist
TACDA President

FROM THE EDITOR

We are pleased to present another information-packed issue of the *Journal of Civil Defense* to our members. I am deeply grateful to all of those professionals who willingly donate their time and knowledge in order to contribute these high quality articles on relevant topics. The information contained in this issue is a valuable addition to your reference library.

The world continues to be in commotion with many dangers threatening us on every side. I challenge you to do everything within your power to prepare your family. I challenge you to exercise your influence within your community to encourage others to prepare. There is great power as we work together to be ready for whatever challenges our future holds.

Thank you for taking the initiative to develop the skills, knowledge and resources necessary to care for yourself and your family. You are part of the solution in a world that is in serious trouble. May God bless you and keep you safe.

Sincerely,

Kylene Jones
Editor, *Journal of Civil Defense*

Essentials of Infection

What You Can and Cannot Treat Successfully on Your Own

By Cynthia J. Koelker, MD
www.ArmageddonMedicine.net

Under what circumstances do you foresee treating infection on your own?

If I lived in Wyoming, where the interstates are sometimes closed in winter, I'd want to know how to treat pneumonia. Or if I were a hiking enthusiast exploring the wilds I'd carry the tools to treat a nasty laceration. Or if I were a missionary to Haiti I'd be concerned about cholera and food poisoning. And if the power grid goes we may all be on our own to treat the whole host of infection known to mankind.

Like most Americans, you likely depend on your doctor and local hospital to treat infections that come your way, from sore throats and bronchitis, to urinary infections and STDs, to appendicitis and skin infections. For an epidemic, we hope the CDC will carry us through an outbreak of hepatitis A, or the plague, or perhaps even Ebola. The government has stockpiles of penicillin, ciprofloxacin, doxycycline and several other antibiotics, and no doubt there's enough Tamiflu stashed away for a lethal strain of influenza. But what if the government can't get to you? What if communications are down? What if you're truly on your own?

Should such an event occur, perhaps another Hurricane Katrina where sick people were stranded for weeks, you'll want to be prepared. But how far can the layman go? The thought of treating innumerable infections may well seem overwhelming. Where should a person begin?

Common things occur commonly. That bit of wisdom has not changed since my medical school days three

decades ago. Living in America (and short of a bioterrorist attack) you're not likely to encounter hemorrhagic fever, or botulism, or diphtheria. What you are likely to encounter are infections everyone has heard of and many have experienced, and fortunately many of these are treatable with tools and knowledge accessible to the average family.

The first tool you'll need is a knowledge base, that is, at least a few good reference books. Doctors consult books and articles on a daily basis – and so should you.

But first, what can't you treat on your own? To begin, of course you'll have trouble treating diseases doctors can rarely treat successfully today, such as the feared Ebola virus. You'll also have little success with infections that require very specialized medication, such as AIDS or highly resistant bacteria. Infections that progress too quickly are a great challenge, such as pneumonic plague, which requires treatment within the first 24 hours of symptoms to cure. Then there are so-called "surgical infections" such as a ruptured appendicitis or necrotizing fasciitis, which are frequently incurable without surgery. And lastly, you'll have great difficulty treating infections which you do not recognize or have never heard of.

Fortunately uncommon infections are uncommon. At least 90 percent of infections are of the common variety. This is the group we'll address further.

If you are a middle-aged adult, you are already aware of the most common infections and likely have at least a passing knowledge of symptoms. Pneumonia patients look sick, are feverish, and have a cough. Bladder infections cause frequent urination and burning. Infected skin is red, swollen, and warm. But how do you tell the difference between pneumonia and bronchitis or influenza, and when does it matter?

The first tool you'll need is a knowledge base, that is, at least a few good reference books. Doctors consult books and articles on a daily basis – and so should you. Obtain a general medicine reference, such as a textbook of family medicine. A used copy even a decade old would be fine. My own book, **Armageddon Medicine: How to Be Your Own Doctor ... in 2012 and Beyond**, is written from the point of view that no help is on the way and covers dozens of infections. **The 5-Minute Consult** series is a handy, quick reference, and a picture atlas of dermatology will definitely come in handy, as would a textbook of physical diagnosis.

But what about antibiotics? Yes, you need antibiotics – we'll get to that.

However, before treatment comes diagnosis, and there are several other tools to consider adding to your arsenal. Does your child have an ear infection? Look for yourself, with a Dr. Mom's Otoscope, available for under $30 at Wal-Mart and online. The scope also includes a set of ear pictures for reference. The LED light will last nearly forever, but don't forget extra batteries. Practice now looking at your family's ears so you'll be able to tell what is normal and what is not. Could your son have strep throat? Test him at home with a Rapid Strep Kit, the same test doctors use and also available inexpensively online. Is your daughter wheezing or rattling? Get a stethoscope and listen carefully to her chest. Does your mother's frequent urination indicate infection or possibly diabetes? Again, professional testing supplies are available to the public, such as Multistix 10 SG or a generic equivalent. The presence of leukocytes and nitrites indicates infection is quite likely. All these tools can be easily obtained and may aid you in a crisis.

As for obtaining extra antibiotics, the best starting place is a discussion with your doctor. Making an appointment specifically for this would likely yield better results than tacking a request for antibiotics onto the end of an office visit for a separate problem, as the doctor is ready to head out the door. Doctors do prescribe antibiotics and other drugs for people traveling overseas, for missionaries and the like. What your doctor does not want is for you to treat yourself when you should be visiting a physician, especially if you lack the knowledge to do so successfully and safely.

However, several students who have attended my Survival Medicine workshops have reported difficulty obtaining an emergency supply of antibiotics from their personal physicians, and so have chosen alternative routes to obtaining them. Some have traveled to Mexico to acquire antibiotics over the counter for personal use. Others have purchased so-called "fish antibiotics," which may indeed be U.S. pharmaceutical grade, but are only sold legally for aquarium use. Don't risk your health on medicines you cannot verify as safe using a pill identifier to track the manufacturer.

Unfortunately you cannot count on your local physician to carry a supply of antibiotics for emergency use. An unconsidered result of more and more physicians becoming employees is that they have no professional supply of drugs to share with sick patients should pharmacies become inaccessible. Perhaps you'd like to encourage your family doctor to invest in several stock bottles of penicillin, amoxicillin, cephalexin, azithromycin, doxycycline, trimethoprim-sulfamethoxazole, metronidazole, and ciprofloxacin. Having a few second-line antibiotics on hand is also a good idea, medications such as clarithromycin, clindamycin, amoxicillin-clavulanate, levofloxacin and cefdinir, all of which are available as generics but are somewhat more expensive.

Detailed information on dosing can be found in many references, such as a Physician's Desk Reference, available used online for as little as a penny (plus shipping). This is especially important for children, where dosing is often given as mg/kg (milligrams per kilogram). (A good pediatric scale is another great investment).

Adult doses of common antibiotics

DRUG	DOSE	FREQUENCY AND LENGTH OF TREATMENT
Amoxicillin	250–875 mg	2–3 times daily for 7–10 days
Amoxicillin-clavulanate	875/125 mg	2–3 times daily for 3–10 days (take with food)
Azithromycin	250–500 mg	Once daily for 5 days (other regimens exist)
Cefdinir	300 mg	Twice daily for 7–10 days
Cephalexin	250–500 mg	3–4 times daily for 7–10 days
Ciprofloxacin	250–750 mg	Twice daily for 3–10 days
Clarithromycin	250–500 mg	Twice daily for 5–10 days
Clindamycin	150 mg	2–4 times daily for 7–10 days
Doxycycline	100 mg	Twice daily for 7–10 days
Levofloxacin	500 mg	Once daily for 5–10 days
Metronidazole	250–500 mg	3–4 times daily for 7–10 days (take with food)
Penicillin	250–500 mg	3–4 times daily for 7–10 days
Trimethoprim-sulfamethoxazole	800/160 mg	1/2–1 tablet twice daily for 3–10 days

are given in the following table:

Obviously there is a range of dosing. The shorter term and lower doses are commonly used for simple infections such as cystitis (bladder infection), whereas the higher dose, longer term dosages are necessary for more serious infections such as pneumonia.

Several antibiotics require special mention: doxycycline causes permanent staining of teeth and is not recommended for children whose permanent teeth have not erupted (unless treatment is life-saving). Ciprofloxacin, levofloxacin, and metronidazole are generally avoided in children unless treatment is life-saving. Amoxicillin-clavulanate is likely to upset the stomach if not taken with food. Clindamycin is used as an alternative to penicillin drugs in penicillin-allergic patients. Azithromycin and clarithromycin are additional alternatives to penicillin or amoxicillin. Clarithromycin tastes terrible and may cause gagging or vomiting if crushed or split. Cephalexin and cefdinir are related to penicillin and amoxicillin; they should be avoided in severely penicillin-allergic patients. Mildly penicillin-allergic patients still have at least a 10 percent chance of reacting to both cephalexin and cefdinir as well. Trimethoprim-sulfamethoxazole is to be avoided in late-term pregnancy and early infancy.

Armed with the above tools, what could you reasonably expect to treat successfully? Assuming you have the correct diagnosis to begin with, I believe the layman would often be able to treat the following infections adequately, listed from head to toe:

INFECTION	1ST LINE ANTIBIOTICS	ALTERNATIVES	COMMENTS
OTITIS MEDIA (middle ear infection)	**No antibiotics** for most Amoxicillin	Penicillin Amox-clav Azithromycin Clarithromycin Cephalexin Cefdinir Trimeth-sulfa	Reserve antibiotics for pre-school age children unless very sick or symptoms persist beyond 5-7 days

INFECTION	1ST LINE ANTIBIOTICS	ALTERNATIVES	COMMENTS
OTITIS EXTERNA (external ear infection) (swimmer's ear)	**No antibiotics** 50:50 dilution of white vinegar as ear drops 3–4 times a day	Oral ciprofloxacin Oral trimeth-sulfa Oral amox-clav	Restoring acidic pH of ear is often curative. Antibiotic ear drops are not easily obtainable. Don't use ear drops if blood in ear or ruptured ear drum
COMMON COLD	**No antibiotics** unless symptoms persist beyond about 2 weeks	Same as for sinuitis below	Green mucus does not mean you need antibiotics
SINUSITIS	**No antibiotics** unless symptoms persist beyond about 2 weeks	Amoxicillin Penicillin Amox-clav Azithromycin Clarithromycin Cephalexin Cefdinir Doxycycline Trimeth-sulfa	Neither sinus pressure, headache, nor green mucus indicates a a definite need for antibiotics
SORE THROAT, NON-STREP	Usually viral **No antibiotics** unless symptoms persist beyond about 2 weeks	Amoxicillin Penicillin Amox-clav Azithromycin Clarithromycin Cephalexin Cefdinir	Cough, hoarseness, and lack of fever argue strongly against strep Perform home strep test if strep is likely
TONSILLITIS, NON-STREP	Usually viral **No antibiotics** unless symptoms persist beyond about 2 weeks	Amoxicillin Penicillin Amox-clav Azithromycin Clarithromycin Cephalexin Cefdinir	If several of following symptoms present, strep is more likely: Fever, pus on tonsils, swollen glands, age under 15, *lack* of cough, *lack* of hoarseness
SORE THROAT, STREP	Amoxicillin Penicillin	Amox-clav Azithromycin Clarithromycin Cephalexin Cefdinir	Treatment is aimed at preventing rheumatic heart disease rather than symptom relief Confirm with strep test

INFECTION	1ST LINE ANTIBIOTICS	ALTERNATIVES	COMMENTS
DENTAL INFECTION	Amoxicillin Penicillin	Amox-clav Clindamycin Azithromycin Clarithromycin	Dental abscess may require lancing Definite treatment often involves dental extraction
CONJUNCTIVITIS (pink eye)	Usually viral **No antibiotics**	Oral antibiotics for 3–5 days: Azithromycin Clarithromycin Ciprofloxacin	Eyes glued shut in the morning is best indicator of need for treatment. Eye drop antibiotics not easily obtainable
ACUTE BRONCHITIS (in otherwise healthy person)	Usually viral **No antibiotics**	Azithromycin Clarithromycin Amoxicillin Penicillin Amox-clav Cephalexin Cefdinir Doxycycline	Reserve antibiotics for symptoms that persist beyond a few weeks Cough may linger for up to a month (but should gradually improve) and does not indicate the need for antibiotics Albuterol inhaler or short-term prednisone may lessen symptoms
BRONCHITIS RECURRENCE (in patient with COPD or emphysema)	Azithromycin Clarithromycin Amoxicillin	Amox-clav Cephalexin Cefdinir Ciprofloxacin Levofloxacin	Though infection may be viral, antibiotics are often helpful
PNEUMONIA	Azithromycin Clarithromycin Amoxicillin Penicillin	Amox-clav Cephalexin Cefdinir Ciprofloxacin Doxycycline Levofloxacin	Fine crackles are often heard in the lungs Patient usually has cough, fever, and looks quite ill
CHOLERA	**No antibiotics** in mild to moderate cases Doxycycline 300 mg as single dose for moderate to severe cases	Trimeth-sulfa Ciprofloxacin Azithromycin	Give fluids in large amounts to make up for losses – patients die of dehydration Avoid contamination
CLOSTRIDIUM DIFFICILE	Metronidazole	Vancomycin (not easily obtainable)	Also known as antibiotic-related colitis – generally occurs after taking other antibiotic Diarrhea with unusually bad odor and often abdominal pain

INFECTION	1ST LINE ANTIBIOTICS	ALTERNATIVES	COMMENTS
DIVERTICULITIS	Ciprofloxacin PLUS metronidazole	Metronidazole plus either: • trimeth-sulfa • levofloxacin • amox-clav	Mostly in age >50 Abdominal pain plus diarrhea, sometimes bloody
APPENDICITIS	Surgery if possible	Same as for diverticulitis	Antibiotics only effective if infection is treated before appendix ruptures Recurrent appendicitis fairly likely
FOOD POISONING	No antibiotics	Trimeth-sulfa Ciprofloxacin Levofloxacin	Most people recover without antibiotics Do use antibiotics for immunocompromised
CYSTITIS (bladder infection)	Trimeth-sulfa	Ciprofloxacin Levofloxacin Amoxicillin Amox-clav Macrodantin (not easily obtainable)	For simple infections, 1–3 days of treatment often effective If no better by 3 days, switch antibiotics
KIDNEY INFECTION	Amox-clav Ciprofloxacin Levofloxacin	Trimeth-sulfa	Treat 7–10 days May require med for nausea such as meclizine
URETHRITIS (possible STD)	Doxycycline Azithromycin	Clarithromycin Ciprofloxacin	Treat partner
ANIMAL BITE	Amox-clav for cat bites Give for essentially all cat bites with puncture, especially on hands Also give for major dog bites	Requires 2 drugs: Give clindamycin or metronidazole plus one of the following: • Cefuroxime • Ciprofloxacin • Levofloxacin • Trimeth-sulfa • Amoxicillin • Penicillin • (Azithromycin) • (Doxycycline)	Minor dog bites and most other animal bites may be observed before starting antibiotics and may require no treatment beyond thorough cleansing Azithromycin and doxycycline are considered less effective among the two-drug regimens

INFECTION	1ST LINE ANTIBIOTICS	ALTERNATIVES	COMMENTS
CELLULITIS (skin infection)	Cephalexin Amox-clav	Cefdinir Clarithromycin Azithromycin (Doxycycline)	Skin appears red, somewhat warm and swollen, with enlarging area of redness (Use doxycycline for infected tick bite)
CELLULITIS (MRSA)	Trimeth-sulfa Doxycycline	Vancomycin (not easily obtainable)	Suspect MRSA if pus is present from onset of infection or if cephalexin or amox-clav ineffective
SKIN ABSCESS	No antibiotics if pus is removed	Same as for cellulitis and MRSA	Lance abscess Abscesses rarely resolve with antibiotics alone
INGROWN TOENAIL	No antibiotics	Cephalexin Amox-clav Cefdinir Clarithromycin	Relieve pressure on nail Remove edge of nail Hot soaks 3–4 times daily

Review the above chart and notice how often "No antibiotics" are recommended for the average person. In an emergency situation in which no help is expected you surely want to save your antibiotic supply for serious situations. Don't waste them on a common cold or other infections where they rarely make a difference. The above are actually recommendations for treatment even under current conditions. Why then, do doctors dispense antibiotics so readily? The simplest answer is to keep the patient happy. Most (though not all) patients believe they must have an antibiotic, even if the doctor says otherwise.

With every rule comes exceptions. Severely asthmatic patients who have a low tolerance for even a minor secondary infection may find taking an antibiotic for a simple cold keeps them out of the hospital. Some women with recurrent bladder infections do well taking a single dose of antibiotics at the first sign of urinary infection. Though waiting at least a few days to begin antibiotics is generally advisable for most conditions, if no surgical option is available, suspected appendicitis should be treated immediately before rupture occurs, lest death ensue.

Antibiotic reactions and allergies are common. Never take an antibiotic which has previously caused hives, swelling, trouble breathing, or other serious side-effect. Always beware that new and unexpected side-effects may occur.

Antibiotics are not the whole story in treating infection. Sick people often drink too little and succumb to dehydration rather than infection. Patients with pneumonia may perish without oxygen. Lacking inhalers and/or steroids, asthmatics may die. Urinary infections may not clear without adequate fluids. Abscesses won't resolve unless they are drained.

Do these guidelines sound simple or complicated? Infectious disease doctors spend at least five years beyond medical school learning their specialty. However, of all infections in the world, even within the United States, a good 90 percent of patients never require their skills. Should you ever be in a situation where you are on your own, the above information may well be lifesaving.

For both laymen and professionals the most difficult part of treating infection remains correct diagnosis. I spend much time addressing this in both my book, Armageddon Medicine, and my Survival Medicine workshops. Further information is available at www.armageddonmedicine.net.

Finally, keep this article with your medical supplies for future reference and let's hope you'll never need to use it. ●

DRC Researcher in Hobart, Tasmania in 1967, conducting field research, following a forest fire.

Learning from the Storm:

Civil Defense and the Birth of

DISASTER RESEARCH

All images courtesy of the Disaster Research Center. Used with permission.

By Mark J. Appleton

On March 21st, 1952, a cluster of tornadoes struck the Mississippi valley. The damage stretched across nine states; 231 people died and 1,829 were injured. In White County, Arkansas, a pair of cyclones leveled the town of Judsonia, destroyed 650 buildings, and killed 46 people.

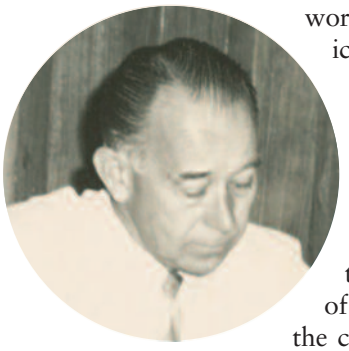
Thirteen days later, as the townsfolk were still picking through the wreckage, 26 scientists arrived in Judsonia from Chicago. Instead of first aid kits and blankets, they carried tape recorders and notebooks. They fanned out across White County, picked a representative cross-section of homes, and asked their inhabitants if they could interview them.

To their own surprise, most of the people they asked said yes.

Over the next two weeks, working

12 hour days, they interviewed 423 people in Judsonia and the surrounding towns. When did they realize the tornado was approaching? Did they heed warning signs? How did they react when they realized what was happening? Did they panic, did they weep, did they pray, how did they act after the storm passed, did they have nightmares, headaches, trouble concentrating – an average of an hour and a half with each man or woman. Then, back in Chicago, they coded the results onto punch cards and fed them into a computer.

These scientists – mostly graduate students in sociology – worked for the National Opinion Research Center, or NORC. From 1950 to 1954 NORC researched the behavior of people in disasters under a contract from the Army Chemical Command (ACC). The Army knew that in the next world war the United States would not be spared attack. Army planners worried about panicked, screaming hordes clogging evacuation routes, frenzied looters smashing shop windows, the breakdown of social order in the chaos of nuclear war.


Steven R. Tripp

Storm, earthquake, fire, and flood were the closest analogues to nuclear war available in the United States. If the military were to effectively protect the public in World War III, they needed to know how the public would behave. Therefore, they paid NORC $50,000 to go into disaster zones and find out.

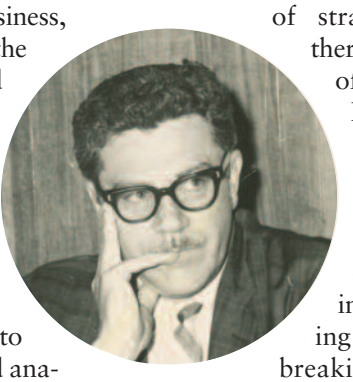
The project was born from the 1948 Donora, Pennsylvania temperature inversion. In a temperature inversion, hot air forms a layer above cold air, trapping the cold air near the surface. Pollution from nearby metalworks was trapped along with the cold air over Donora, forming a thick, choking, poisonous smog that turned noon dark as night. Twenty people died and 7,000 were sickened before rain brought clean air back into the town.

The Army Chemical Command, being in the poison gas business, was naturally interested in the event. And they noticed something unusual: many people in the area who had not actually been exposed to the smog showed symptoms of it, apparently a sort of psychosomatic poisoning.

The ACC asked NORC to study Donora to measure and analyze the effect. However, the NORC leadership felt that, by the time a research team could be gathered and trained, too much time would have passed to collect good data. Instead, they proposed setting up a field team to rapidly respond to new disasters, who would go into the damaged areas to interview the victims. The ACC agreed to the proposal: "empirical study of peacetime disasters will yield knowledge applicable to the understanding and control, not only of peacetime disasters, but also of those which may be anticipated in the event of another war." This was not the first sociological study of a disaster, but previous efforts had been isolated and singular, a thesis here, a monograph there. The NORC effort would be a sustained, on-going research program, examining numerous events and looking for common features across a wide range of events.

Charles Fritz, a graduate student at the University of Chicago, was one of the leaders of the NORC research effort. Fritz had trained as a photographer and worked on the Strategic Bombing Survey after World War II. The survey attempted to quantify the physical, economic, and social impact of the massive Allied air campaign against Germany and Japan, including how the raids affected civilian morale. They discovered that morale tended paradoxically to increase under heavy bombing. But, politically, the survey was supposed to justify the doctrine of strategic bombing, and therefore the establishment of an independent Air Force – and Fritz noticed that the military officers writing the survey's conclusions omitted the sociologists' results, asserting that strategic bombing could win wars by breaking civilian morale. While the military may not have been interested, Fritz was, and after leaving the survey he entered the University of Chicago's Ph.D. program in sociology. While at Chicago he joined the NORC project, leading the newborn field team.


E.L. Quarantelli


Russell R. Dynes

Fritz and his team began with practice interviews around Chicago, covering porch collapses and other small incidents. Fritz later recalled that "a lot of people we talked to thought this was ridiculous ... there was a feeling that particularly disaster-struck populations, one they would be so preoccupied with their problems or they would be so antagonistic to the idea of your coming in to exploit them, get information from them when actually you ought to be helping them in some way. But here you are a scientist coming in to get information rather than to provide any kind of assistance." But, in fact, almost everyone they spoke to agreed to be interviewed.

By 1951, the NORC field team was ready. On September 15th, a plane crashed into a crowd of spectators during an air show at Flagler, Colorado, killing 20 people. The NORC field team was there three days later, interviewing the survivors.

From July 1951 through August 1952, the NORC team crisscrossed the country, landing everywhere something horrible had happened. They studied an earthquake in California, airplane crashes in Colorado and New Jersey, gas explosions in New York, a factory

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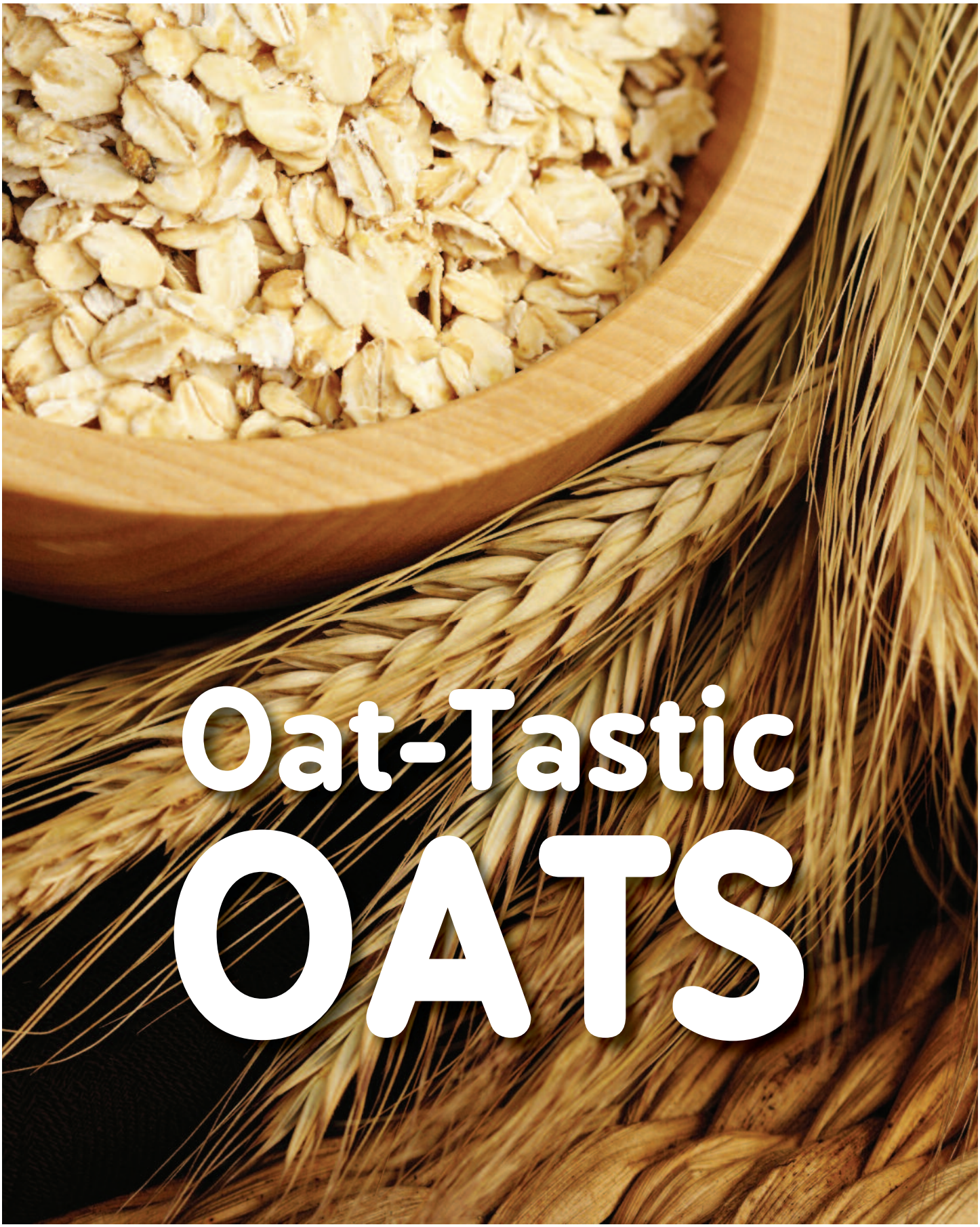


Oat-Tastic OATS

By Chef Tess Bakeresse
www.cheftessbakeresse.com

When I think of oats, I always think of the crazy king of the lemurs in Madagascar and his nutty dance. Yes, I'm the chef version of King Julian singing "Light, fit, Oat-tastic - physically, physically, physically fit!" Good luck getting that song out of your head today. Seriously though, let's talk oats.

For how funny my brain works, this is serious business. Usually when I think of oats I actually think of a powerhouse of nutrition. They're an outstanding grain to add to your long-term storage for many reasons. Oats contain calcium, magnesium, vitamin E and potassium as well as the trace minerals like iron, zinc, copper, selenium and manganese. Nutritionally dense in phytochemicals and fiber (soluble and insoluble). They have been proven to help your heart, lower blood pressure and maintain healthy blood sugar levels in diabetics.

Oats come in many forms. From the whole oat grain called an oat groat, to steel cut oats, Scottish Oats, rolled oats to instant oats. Perhaps you, like many, have only ever thought of oats for breakfast. As exciting as oatmeal is.....it's not the only way to use oats. In fact, after this little article, you may never look at oats the same way again. All these forms vary in cooking time and texture but not in nutrition.

What are the health benefits of eating oats?

Soluble Fiber
One of the best benefits of oatmeal (or any whole oat food) is that it lowers cholesterol by removing LDL (bad cholesterol) while maintaining HDL (good cholesterol).

Insoluble fiber
Absorbs water which helps to speed the transit of food through the bowels which helps to reduce the risk of some bowel related cancers (i.e. colon cancer).

Beta Glucan
A bio-defense modifier which means it will boost your immune system.

Vitamins and Minerals
Additional benefits of oatmeal include Iron, Zinc, Selenium, and Vitamin E.

Phytochemicals
Plant chemicals that have shown promise in fighting and preventing cancer. For example, the phytoestrogens (lignans) found in oats help to fight hormone related diseases like breast, ovarian, and prostate cancer.

Oats come in more than one form for purchase. What are the differences?

Whole Oat Groats
This is the harvested "as-is" product. Whole oat groats are widely used as animal feed, but not so easily found for human consumption. I found them with most of the big grain companies for shipping and in a few specialty stores. Purchasing in bulk is optimal. Some health food stores carry them. Whole oat groats can be cooked or steamed, but because they're a bigger grain than rice or even whole wheat kernels, take much longer to cook. It can take up to an hour, although a pressure cooker will shorten the cooking time. Because they are "as-is", they have the highest nutritional value of all forms of oats. They are digested very slowly, which reduces the glycemic load and makes them quite filling. The shelf life for these is 25 years plus if stored in a cool, dry, oxygen-free environment. They can be rolled by hand using a hand roller called a "Marga Roller" and I use it often instead of buying pre-rolled oats. This roller retains the long shelf-life of the whole grain oat.

Steel Cut Oatmeal or Oats
Just to make things even more confusing, steel cut oats are also commonly called Irish Oatmeal. They are exactly what the name says, being whole oat groats that have been steel cut into smaller pieces. This shortens the cooking time, but keeps all the nutritional value of the whole oat groats. These are much easier to find at the grocery stores than whole oat groats. Look for either steel cut oats or Irish Oatmeal. Shelf life is 20-25 years if stored in a cool, dry, oxygen-free environment.

Scottish Oats
Scottish oats are not to be confused with Irish Oatmeal. They are steamed, steel cut oats that are then ground into a meal. This improves the grain's ability to absorb water and allows a shorter cooking time. Some manufacturers toast the oats to create a richer-flavored oatmeal, or combine it with some oat bran to make the oat meal creamier. They have a shelf life of up to 10 years if stored correctly.

Rolled Oats or Oat Flakes
When most people think of oatmeal, "rolled oats" are the kind they usually are referencing. Rolled oats can be made with the whole oat groat or using steel cut oats. Either way, the oat is steamed to soften the grain, so it can then be pressed between steel rollers to flatten it.

There are four main types of rolled oats

Thick Rolled Oats
These are made from steamed whole oat groats rolled into flakes. Because they're the thickest variety, it takes them longest to cook. They are sometimes sold as "steam table oats" because of their common use in cafeteria settings on the steam tables for mass production.

"Old Fashioned Oats" or Regular Rolled Oats
Think Quaker Oatmeal. These are the steamed whole oat groats rolled into a thinner flake which shortens the cooking time. The texture is a bit mushier than thick rolled oats, but still pretty filling and full of whole grain goodness.

Quick Oats
Instead of using whole oat groats, these are made from steel cut oats so are smaller pieces, and faster cooking. They digest a little quicker than regular rolled oats, but are still nutritious.

Instant Oats
These are quick oats that have one more processing step - they are pre-cooked. Because of this, all you have to do is add hot water and they're ready to eat. Non-flavored varieties may have a bit of salt added, but are still nutritionally decent. However, the flavored varieties can have a lot of sugar and artificial flavoring, so aren't quite as good for you as regular types of oatmeal. Most rolled oat varieties have a shelf life of up to 10 years if stored correctly.

I use rolled oats in my favorite soup. It is a comforting vegetable soup that is savory and filling. The best thing is toasting the oat first in the oil, as this will cook the starches before water is added and help them hold a very distinct texture. It is amazing!

Chef Tess BAKERESSE

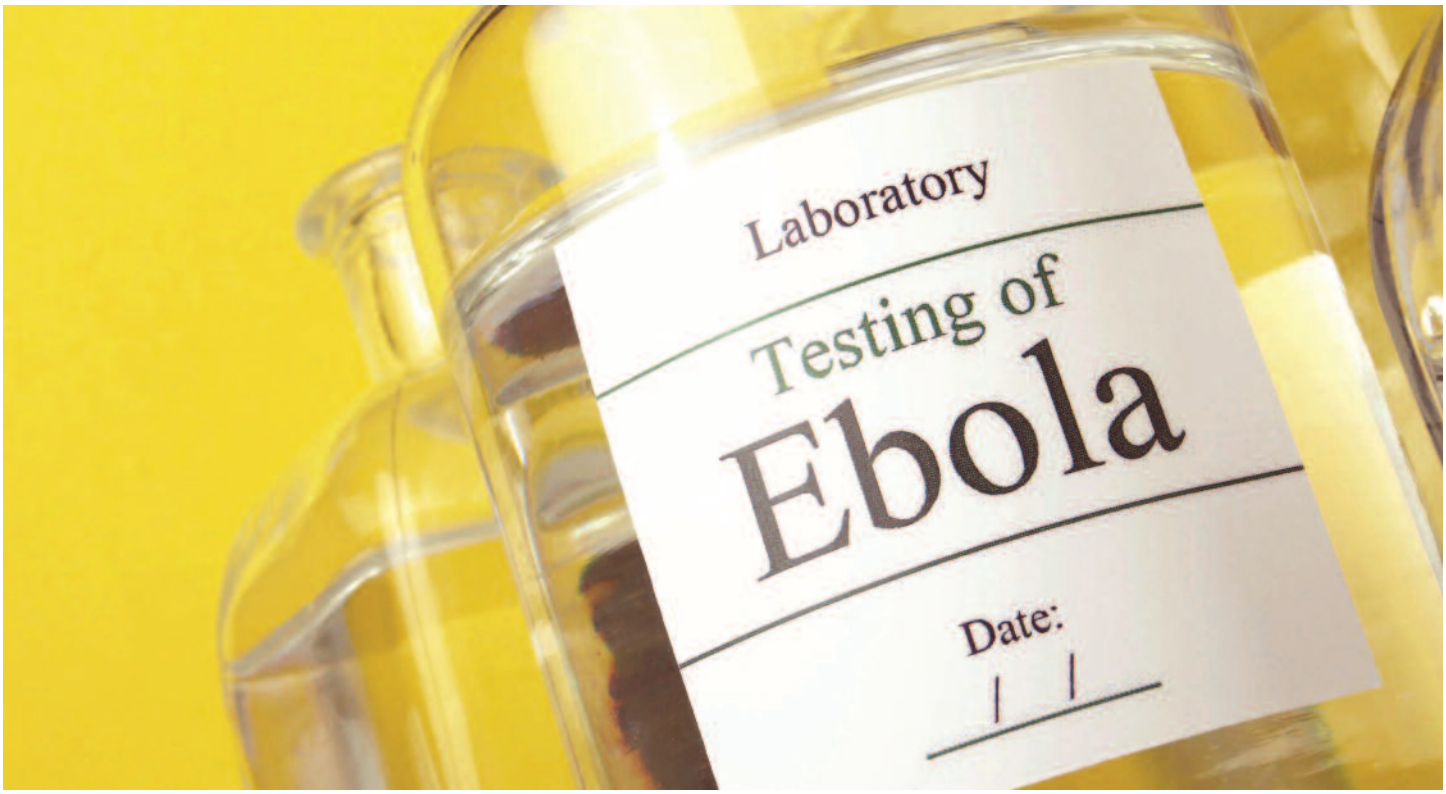
CHEF TESS' OATMEAL SOUP

3 T butter or olive oil
1 onion, minced fine (about 3/4 cup)
1 carrot, minced
1 stock celery, minced
1 clove garlic minced
1 1/2 cups uncooked rolled old fashioned oats (not quick oats)
6 cups chicken or vegetable stock
1 tsp all-purpose seasoning
1/2 tsp dry tarragon
3 T chopped fresh parsley
1 cup chopped fresh spinach

Directions: Combine the butter, onion, carrot, celery, garlic and oats in a one gallon pot. Cook until oats are toasted and vegetables sweat, about 5 minutes. Add stock, seasoning, parsley and spinach. Simmer 5-7 minutes until oats are tender.

***Chef Stephanie Petersen** (AKA Chef Tess Bakeresse) has been a seasoned professional gourmet chef for the last 20 years, a nationally known cooking instructor, food storage and grain specialist, TV and radio personality and cookbook author in Phoenix, Arizona. She specializes in family-friendly whole foods and loves solar cooking, baking, and empowering those around her with practical and powerful skills for emergency preparedness. She can be found at www.cheftessbakeresse.com and her cookbooks:*

The Gourmet Food Storage Handbook as well as The Meal in a Jar Handbook: Gourmet Food Storage Made Easy, Bread Art: Decorating, Braiding and Painted Edible Bread for Beginners are available on Amazon.com and anywhere books are sold. Her Home Canning book Canning Cents: Whole Food on a Budget is due to be released early next year.



EBOLA:

the Next Pandemic?

By Kyle D. Christensen, DC, ND, MH
www.DrKyleChristensen.net

Pretty scary stuff we are reading about these days. What concerns many of us is that we are too often not told the truth. We have learned from sad experience that the media (news reporting agencies) and the marketers (those trying to sell products) are more motivated to manipulate our behavior than give us honesty and truth. As a result, many of us have become skeptical, suspicious and cautious of what we are being told.

And so it is with this latest outbreak of the contagious disease - Ebola.

I tend not to trust what the American Media is telling us, especially in the face of what is being reported overseas. We are not being told about the US bioweapons lab that has been kicked out of Sierra Leon who was working with Ebola. We are not being told about the research suggesting that this strain of Ebola is different from the one that first surfaced in 1976.

We are not being told of documented cases contracted without direct contact - meaning that it was and can be spread through the air. It is not being discussed what we (as individuals and families) can do to prevent or avoid exposure. No mention in the popular media of doing *anything* to prevent or prepare. [Don't want the populace to get all riled up - just keep telling them they are comfortable and safe.]

The truth is, it is difficult to know when we are being told the truth or when we are being manipulated with half truths or outright misinformation. Most people are simply too busy to bother with "all of the negative news." Wars, financial crises, fires, immigration debates, terrorism (terrorism was just in 2001 right?) - It is all so negative. We've got kids to get ready to get back in school, family reunions, parties and social gatherings, skiing on the lake, hiking in the woods, training for the next race, etc. Nope, no time for negative stuff.

Now I am not suggesting that *this is it!* That this Ebola outbreak will spread to become the next worldwide pandemic - the last being the 1918 Spanish Flu, which killed millions (that was with a 2.5 percent death rate). However, real or not, I believe this is an opportunity for us to discuss and prepare for the *what if*.

First, understand that prevention is far better than grappling for a cure. This Ebola virus is scary and can kill up to 90 percent of those infected. Your number one strategy for this and any other contagious disease is referred to as social distancing. Honestly, nothing else has proven effective. This can range from wearing a protective mask and keeping your distance, to walking into your house, closing the door, and not coming out for 90 days (and not letting anyone or anything else in). Period.

Wow, that is kind of harsh. However, if a potentially deadly contagious disease becomes widespread, you need to prepare and have the ability to exercise every option. If you do not have the personal resources to take care of yourself, you risk exposure.

As a natural health care practitioner, I hear a lot of talk (and read *a lot*) about people's natural remedies. Understand, that there is not one remedy that will cure-it-all. We must understand the nature of the enemy (the disease). In the case of Ebola - it is a virus. Medicine does not have an effective drug or treatment for viral illnesses.

Generally, the goal with viral infections is to keep the person alive long enough for their own immune system to finally kill the virus.

Here is what Ebola does that is fatal: It gobbles up all Vitamin C in the body. No one actually knows the exact mechanism involved in how this is done, but that is what is observed. Scientists know that Vitamin C drops to zero and all the symptoms of Ebola are consistent with a complete loss of Vitamin C.

"The very first symptoms of Ebola are exactly the same as scurvy, which is caused by inadequate Vitamin C. With the absence of Vitamin C, blood vessels become very weak and start to leak, losing blood. Ebola causes massive internal bleeding, loss of blood, and shock resulting in death (up to 90 percent of the time). This 90 percent number that is often thrown around represents the most impoverished, malnourished populations. The range is actually between 25-90 percent depending on the level of health of the population base exposed. This is a pretty convincing argument to be well nourished and healthy. I would rather face a 75 percent chance of surviving than 10 percent. Some researchers suggest Ebola can be stopped simply by taking enormous doses of Vitamin C until the immune system succeeds in killing off the virus."

Characteristic skin lesions or sores develop, which are actually multiple tiny areas of bleeding into the skin that surround the hair follicles. With the Ebola virus and other viral hemorrhagic fevers, the disease tends to reach epidemic proportions in areas where Vitamin C deficiency and malnutrition are more prevalent, such as some of the African countries (or possibly to those of us whose diet are less than nourishing). Because of this, it would make sense to ensure that you are getting plenty of Vitamin C and are eating a diet that promotes a healthy immune system. Understand that consuming sweets and sugar will compromise a strong immune response.

When treating for an infectious disease (Ebola or just the common flu), Vitamin C is taken to bowel tolerance. Plainly put, this means that you keep taking Vitamin C until you get the runs (diarrhea). This signal from the body tells you that you have got enough. When I was in school in the early 1980's, studying the work of Linus Pauling (winner of the Nobel Prize in chemistry in 1954), I decided to put this to the test. I wanted to see how much Vitamin C I could take in a day for the flu I had contracted. 75,000 mg (that's 75 grams) of Vitamin C before I reached toleration.

Understand that there have been no published trials or studies with Ebola or hemorrhagic fever and Vitamin C. It has been suggested that a disease of this nature and intensity could require as much as 500 grams (that's 500,000 mg of Vitamin C - classically used as ascorbic acid) per day to reach bowel tolerance. Again, there is no cure for Ebola. The goal of any and all treatment strategies is to support the person by keeping them alive long enough for their own body's immune system to win the raging war against the virulent infection.

The sicker a patient is, the more ascorbic acid will be tolerated by mouth

before diarrhea results. This is what is meant by bowel tolerance. Vitamin C or ascorbic acid is taken to support the immune system in a degree that will give the body as much Vitamin C as it can use. Depending on the individual symptoms, you can determine how many doses of Vitamin C will be taken. I generally suggest 5 grams (5,000 mg) per dose. So if the goal for the day is 30 grams that would be given in six - 5 gram doses. A dose can be taken as 1 teaspoon of ascorbic acid crystals (or the Vitamin C equivalent of 5 grams) in ½ cup of water or juice. The goal is to take enough Vitamin C to be just short of bowel tolerance. Once bowel tolerance is reached, back off a bit. Continue with intensive Vitamin C doses until symptoms are completely gone. I would continue taking it in lower doses until you are completely "out of the woods".

The following chart can give you an estimation of the number of doses to divide amount of Vitamin C in.

Many in the natural healing arena suggest their favorite remedies as being the cure for practically everything. Whether it be essential oils, colloidal silver, oregano oil, herbal remedies, or

USUAL DOSES FOR BOWEL TOLERANCE

CONDITION	GRAMS ASCORBIC ACID PER 24 HOURS	NUMBER OF DOSES PER 24 HOURS
Normal	4- 15	4- 6
Mild cold	30-60	6 -10
Severe cold	60-100 +	8- 15
Influenza	100-150	8- 20
ECHO, coxsackievirus	100-150	8 -20
Mononucleosis	150-200 +	12 - 25
Viral pneumonia	100-200 +	12 - 25
Hayfever, asthma	15 - 50	4 - 8
Allergy: food - Environment	1 - 50	4 - 8
Burn, injury, surgery	25 - 150 +	6 - 20
Anxiety, stress & exercise	15 - 25	4 - 6
Cancer	15 - 100	4 - 15
Ankylosing spondylitis	15 - 100	4 - 15
Rheumatoid arthritis	15 - 100	4 - 15
Bacterial infections	30 - 200 +	10 - 25
Infectious hepatitis	30 - 100	6 - 15
Candidiasis	15 - 200 +	6 - 25

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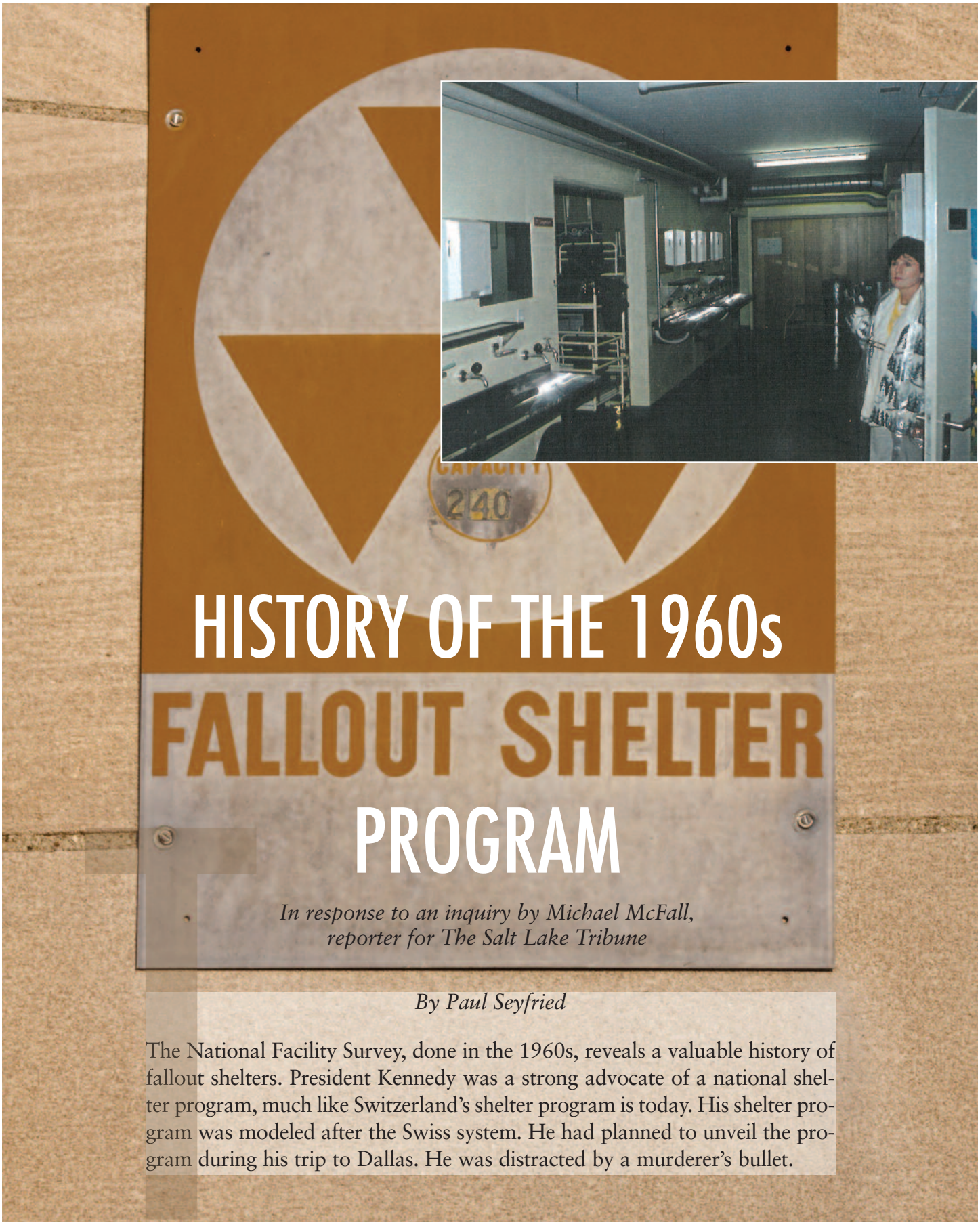


HISTORY OF THE 1960s FALLOUT SHELTER PROGRAM

In response to an inquiry by Michael McFall, reporter for The Salt Lake Tribune

By Paul Seyfried

The National Facility Survey, done in the 1960s, reveals a valuable history of fallout shelters. President Kennedy was a strong advocate of a national shelter program, much like Switzerland's shelter program is today. His shelter program was modeled after the Swiss system. He had planned to unveil the program during his trip to Dallas. He was distracted by a murderer's bullet.

Lyndon B. Johnson cancelled our Civil Defense shelter program, which would have built blast-hardened shelters in the nation's densely populated cities. Less rigorous fallout shelters would have been constructed for rural areas.

Later, an effort was made by the U.S. Government to survey large buildings with multiple stories employing masonry construction to find areas in them that would provide a minimum level of protection that would give occupants a fighting chance of surviving the fallout effects from a nuclear attack. A national grain reserve was established in rural areas that would provide enough food to feed the population for seven years (80 percent of grain is fed to meat-producing animals in peace time, but most of these would be slaughtered immediately, retaining only breeding stock to replenish herds during recovery). This frees up millions of tons of grain for human use. We no longer maintain such a reserve, while Russia still maintains a four year supply. We are now on a Just-In-Time system.

The established protection criteria was a protection factor of 40 (or PF40). Formulas for determining this level were devised, and survey teams went out and identified hospitals, municipal buildings, high rises, etc. that had the right features. The idea was to house as many Americans as possible in hastily organized shelters, stocking them with water, crude rations, and chemical toilets.

The critical need for shelter occurs in the first two to three days, assuming the attack commencement and conclusion occurs within a few hours. In the early years of the 1960s, most weapons would be delivered via aircraf - so we had maybe 14 to 20 hours of preparations before an attack would arrive. Evacuation plans were developed to move as many people outside of large cities as possible. Counterforce weapons and strategies were not developed yet, so cities were assumed to be the primary targets other than obvious enemy airfields.

The age of the ICBM changed all of that. Americans today would have no warning - the concept of a "suit" on TV telling Americans that an attack was imminent is fantasy. Flight time of a submarine-launched ballistic missile, fired from 200 miles off-shore at Washington DC, programmed for a depressed flight trajectory, would arrive on target in about 3 1/2 minutes. It is highly unlikely that the U.S. could detect the launch, plot its intended target, pick up the phones and warn the White House Situation Room, and get the POTUS to the bunker entrance in time. The National Command Authority would likely be wiped out with any surviving members unable to determine who was in charge. Communications would be vastly suppressed from the concurrent EMP laydown before most of the U.S. nuclear deterrent was reduced to smoking rubble.

[Russia will have 80 percent of its strategic nuclear missile force on road and rail-mobile launch vehicles by 2015. Its remaining fixed silos are "cold-launch" systems, able to be reloaded in a few hours with fresh missiles. SS-18 silos are "super-hardened" and are difficult to neutralize. Arms treaties do not address *reloads*, only launch silos. Meanwhile, our land-based nuclear deterrent is the old Minute Man system, initially deployed in 1965. They are still in their original silos, addresses unchanged. We can tell from the laydown splashes of Russian missile tests off the Kamchatka peninsula, which missile field they are rehearsing on. But I digress.]

The critical need for shelter occurs in the first two to three days, assuming the attack commencement and conclusion occurs within a few hours.

The old fallout shelters had *no* ventilation systems and no sanitation systems other than the 15 gallon steel drum toilet kits stocked there. There were no blast doors or blast valves on ventilation pipes to protect occupants from direct weapons effects (heat, blast, debris, fire). This joke of a system gave ammunition to the anti-civil defense lobby. Indeed, these "shelters" were a joke. A PF40 is *barely* adequate protection, assuming your area was not heavily hit by fallout. Virtually everyone inside would probably get sick, but most would not die.

Of course, the president and other officials were to be housed in hardened bunkers, designed for high overpressures. We know how to protect people from WMD, we just don't do it for the taxpayer. Switzerland, Sweden, Norway, Finland, Singapore, Yugoslavia, Czech Republic, South Korea, Russia, China, Israel, and lately, Qatar, Saudi Arabia, UAE, and others have initiated shelter programs to some degree or another. Switzerland remains the only country where 120 percent of the entire population, not just government officials, have blast-hardened, nuclear, biological, chemical shelters. They are required by Federal building codes for any area intended for human habitation. Homes, hospitals, schools, churches and temples, apartment buildings, stores, shops, manufacturing facilities, theaters, etc. - they all have them under the building, or a separate one nearby. I toured many of them in 1999, taking lots of pics and video. Everywhere we went, we would ask to see their shelters. After an odd look, we would explain that we were Americans and that we didn't have any shelters in our country and we would like to see theirs. All showed them upon request.

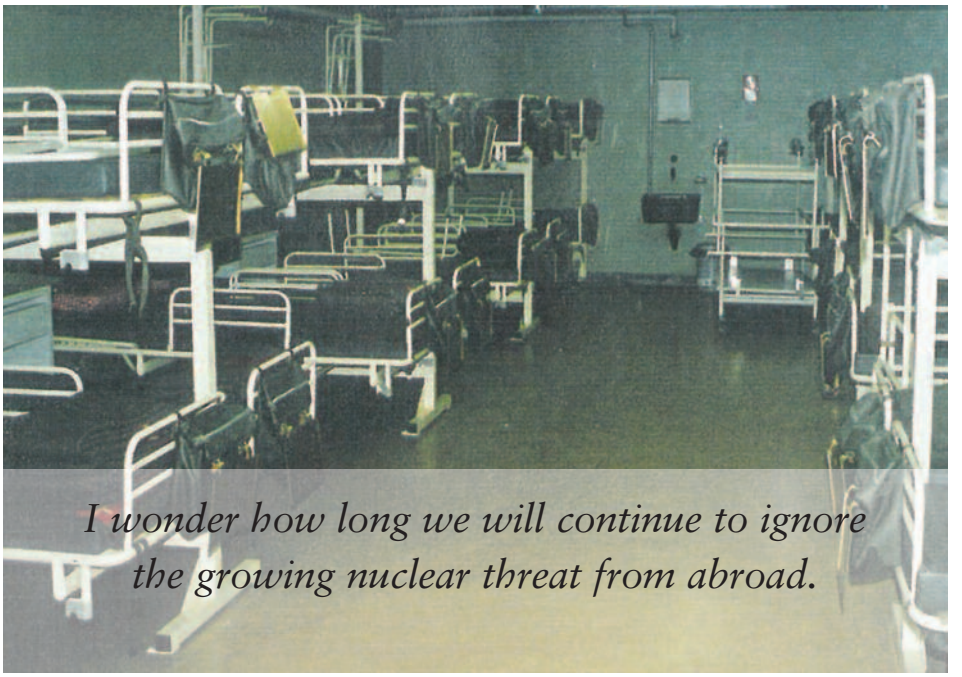
At a school in a small village, we found the school shelter under a field house and track. So happens, they were conducting their semi-annual war game drills, and cleaning/maintenance routine. Pharmaceuticals were replaced with new ones; the six month old inventory was rotated to retail stores. Diesel fuel for the generators were tested. Kitchens exercised. A clean-cut male teenager asked us in perfect English if

we would like to go inside. Of course, we said "Yes!" A few minutes later, he returned with a seasoned man, white hair, in a pale blue uniform. He was the officer in charge of that shelter. He graciously gave us an hour and a half tour, through the infirmary, medical bays containing 36 patient beds each, and general housing areas for healthy citizens (bed capacity: 250, personnel capacity: 750).

They hot bunk - just like the navy. You get a bunk for every three people. Each had a pillow, exactly placed, as with a ruler. Fresh water reservoir, flush toilets, showers for hygiene and decontamination. Ten kilowatt diesel generator in a separate area, sealed off with a concrete blast door. NBC filtration units, all capable of being operated by six volunteers, on 15 minute shifts. With 750 people, they'll have no trouble finding volunteers. Ceiling thickness was one meter of steel reinforced concrete, and a meter of earth (the soccer field). Fallout protection factor: Over one million. [Remember the U.S. spec? PF40?] Most residential shelters had protection factors of around PF5,000.

Switzerland's tax burden to the citizen to maintain their civil defense program is about $60.00 per year per person. That's a real defense program. Actually defending/protecting the intended victims in the next war. It is not based on the threat of annihilation. Department of Defense is hostile to an American program. It competes with funds for pet weapons programs. In Russia, Civil Defense has a general sitting at the table with the other branches of the armed forces. It is well funded - Russia is now building more shelters again. Construction of the Yamantau Mountain facility never ceased. http://en.wikipedia.org/wiki/Mount_Yamantau.

In WWII Germany, there was not a single fatality inside government-built "bombproof" shelters constructed featuring four foot thick walls and ceilings. Germany has a high water table in many areas, so they build bombproofs up to four stories high. Many were struck with direct hits from 500 lb and 1,000 lb bombs, yet no one inside suffered injury. I doubt that an American city hall building would fare so well. In the Hamburg firestorm raid, 45,000 civilians perished in the fires - mostly exposed in the streets, trapped in hasty basement shelters, or crude trench shelters. None of the 240,000 inhabitants that were sheltered inside bombproofs were injured. Indeed, some had to step in the puddles of melted fat left from people who arrived at the shelters too late when they emerged the next morning.

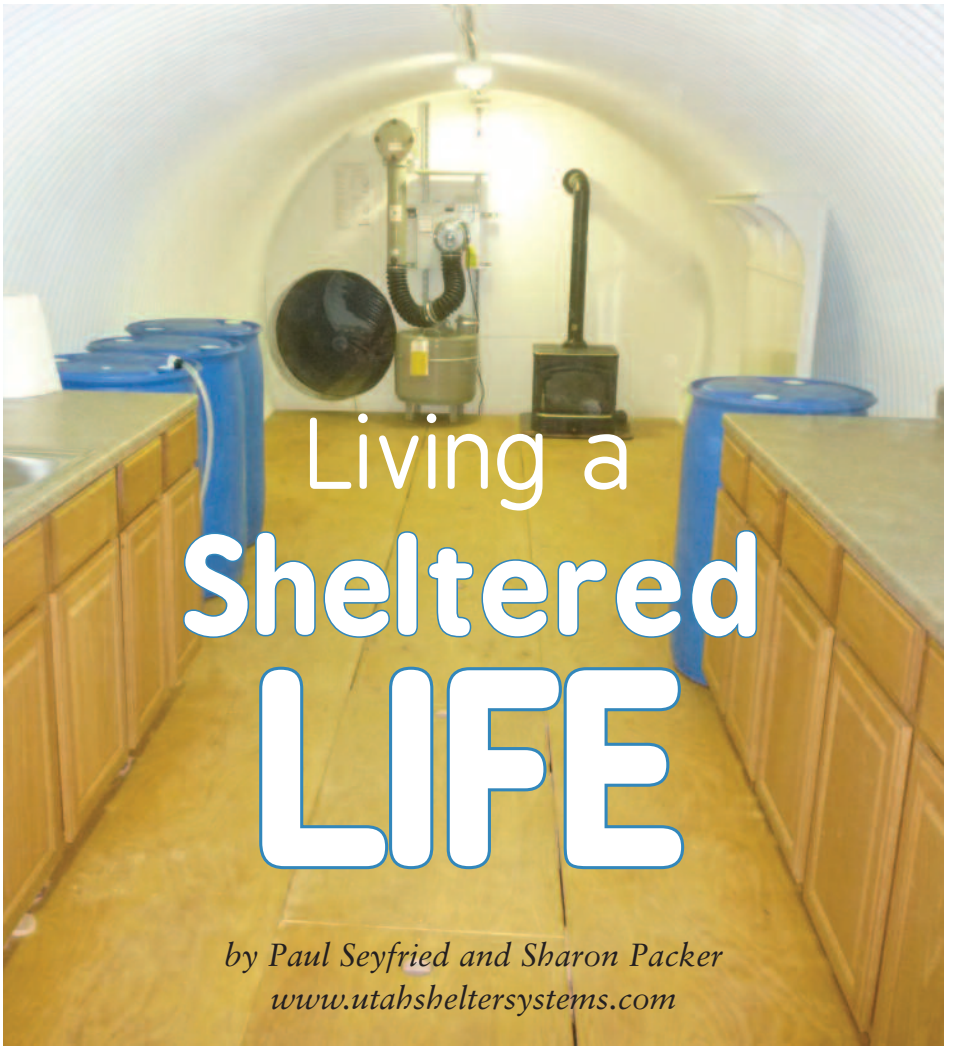


I wonder how long we will continue to ignore the growing nuclear threat from abroad.

The old fallout shelters were cleaned out during the Carter Administration, the biscuits fed to the hogs in Nebraska. Some survive with collectors, and biscuits were tested at Brigham Young University and found to still be viable. I have a CD chemical toilet, mostly for memorabilia. We have modern chemical toilets in our shelters. The Clinton Administration destroyed $200 million worth of the Victoreen fallout meters that still remained in the hands of state authorities. We rescued about 1,000 of them from Arizona. Many still work. I would agree that a shelter stay in the old public fallout shelters would be a real trial. The protection value was not very good, and conditions inside would be awful. But the German shelters were occupied at six times their rated capacity; occupants were packed inside like Japanese commuter trains. They slept all night standing up - one couldn't fall down. Air was very bad, despite ventilation systems. They were overcrowded. But they lived another day.

As we now have a nuclear stockpile that the DOE refuses to certify as safe and reliable, and being that we can no longer manufacture new warheads to replace the long-obsolete (expired) warheads, I wonder how long we will continue to ignore the growing nuclear threat from abroad. Putin is building several new classes of nuclear subs, and new road-mobile, hard target capable ICBMs like this one. (http://www.globalsecurity.org/wmd/world/russia/rs-24.htm) The older, hard target killers like the SS-18 are getting upgrades to keep them in service for another decade, oddly, by the Ukrainians that manufactured them. Though an old liquid-fueled rocket, the SS-18 has never experienced a launch failure. A far better record than the Minuteman or Titan.

In our current state of vulnerability, it is important to realize that if the worst should happen, we are all on our own. No help is coming, no one is going to rope down from an orange Coast Guard chopper to save us. In the end, you are either ready, or you are not. ●



Living a Sheltered LIFE

by Paul Seyfried and Sharon Packer
www.utahsheltersystems.com

Q **Can you please give me direction on the proper size of ventilation unit for 14 people. The shelter unit is 25ft x 35ft with 3' ft storage below and then 8' high walls.**

A You have a wonderful shelter area, about 875 square feet (7,000 cubic feet). Just wondering, can you condense the actual living area of the shelter to something smaller? Say, half of that? The formula is to be able to do an air exchange in about an hour. If you start ventilating with very poor quality air, you will get a lot of bad air pushed out of the shelter as a proportion to the fresh air expelled. As time goes on, you'll get a reduced level of stale air to fresh air being purged. You can't figure on 4,000 cu feet of stale air expelled to 4,000 cu feet of good air coming in. Figure, in the end, about a 4 to 1 ratio. If the 14 people were living mostly in say, a 2500 cu foot area, the air exchange would be complete in a couple of hours. In 7,000 cu feet, it will take much longer.

The incoming air location and outgoing air blast valve should be as far apart as possible to maximize rinsing on the shelter atmosphere. Best place for the exhaust valve is in the lavatory. Best location of the ventilator air pipe is 70 inches off the floor, and three feet away from any wall corner. This allows a person to operate the ventilator by hand from either side, using different muscle groups.

Were it my shelter, I'd seriously consider using two ventilators for this much shelter volume or find a way to reduce the specific area to shelter in. You've got a *lot* of area for stores!

Please don't hesitate to contact us with any questions you might have on your shelter design or the installation of your ventilator. It's great to see people doing this!

Q **How many linear feet of 10' diameter shelter is used to calculate your suggested square feet of floor space when you suggest 11 square feet of floor space per occupant; a 30' X 10' shelter would create how many square feet of floor space?**

A Much depends on where you place the floor and the disaster threat. We like to place the floor at a height of 3', which gives us a 9' width of floor space. A 10 x 50 would then give 450 square feet (9 x 50) of empty floor space. If this were used as a tornado shelter, you could put as many as 50 quiet people in the shelter for a few hours (9 square feet per person).

The VA150 (300 m3/hour) will provide enough air for 50 quiet people. This is assuming that you are not using the high efficiency NBC filter in line with the ventilator. Hot, humid areas may require more air per person (and fewer people per shelter). We like to max our 10 x 50 out at 25 people. I would suggest using 270 square feet as the floor space for a 30 x 10.

Another variable, of course, is the amount of furniture, supplies, and equipment that takes floor space. Many supplies can be stored under the floor, but beds, ventilation systems, chairs, water barrels, etc. take up floor space. More important of all, however, is the cfm of your ventilation system.

Q **I am looking for a filtration system and one of the things that comes up is access to the filters for replacement. Can you replace the filters in an NBC filtration system?**

A There should be two kinds of filters in a good NBC ventilation/filtration system — a pre-filter and a high efficiency NBC filter. The pre-filter material is not extremely expensive and can be replaced under peacetime use.

The NBC filter material, however, is only used during war conditions and should not be removed.

A pre-filter should arrest particles of 10-micron size and larger. Its function is to filter particles such as dust and fallout. The filter should be attached to a steel mesh on both sides and incased in a steel box, placed immediately after the intake blast valve. The steel mesh enables the filter to retain its shape even in the event of blast valve actuation during an attack. During threat time, the outside air will pass through the pre-filter and then will enter the high efficiency filter before exhausting into the room.

The pre-filter prevents premature clogging from larger debris and protects the high efficiency filter. In a pinch, the pre-filter could be washed out and re-used if nuclear, chemical or biological agents were not suspected, although washing will likely cause the loss of the surface treatment that enhances its effectiveness. On our own shelters, we sometimes insert a swath of furnace filter media into the pre-filter assembly to catch routine dirt during non-threat time, sparing the factory element from this chore. The factory element stays pretty clean.

The second filter is the high efficiency NBC filter. The NBC filter should not be put into use during peacetime. The charcoal will absorb humidity from the air, which will compromise its use against chemical warfare agents. The humidity, however, will not adversely affect its use against biological or nuclear agents.

This filter consists of charcoal and a HEPA filter, which are both contained in a metal canister. You may wish to purchase an additional canister, as the filter is permanently encased inside the canister and cannot be removed. This filter canister will prove to be considerably more expensive than the pre-filter material.

Q **I know that a nuclear attack is very unlikely or an attack on the U.S., but I am wondering if there is some kind of warning system besides TV and radio that would happen. Would the tornado sirens go off or something? I am just curious to know what to expect if it were to ever happen.**

A Most strategists seem to concur that a full scale nuclear attack would be initiated with an EMP attack (high altitude weapon used to destroy the power grid). The power would drop almost immediately. This could occur up to 15 minutes before the missiles arrive on target (depending on where you live).

We have suggested that our readers have their electricians build a small DC power drop alarm (see TACDA Academy information at www.tacda.org). You could use an ammo can (remove the gasket and sand the paint around the lid to make sure you have a full metal to metal contact when the lid is closed); purchase a small 12 volt battery; hook it to a relay switch and motor cycle horn; purchase a flasher unit (so the alarm turns on and off every second to save battery power) and charge the device with normal AC power. When the power drops, the relay switch will turn the device to DC power and the horn will sound. I like to put a small light on the alarm as well, so that I know that it is working. A power drop of any kind will turn on the alarm.

You should then test for EMP. Your home phone will not have a dial tone after an EMP. Of course, this will also occur with wireless phones during normal power drops, so test against a phone with a hard wire connection. You could also test by turning on a battery type radio. Most all radio stations will be off the air immediately after an EMP. You might also see arcing come through your power receptacles. Study the nuclear chapter in the TACDA Academy material on the website. Of course, this warning will only help you if you have prepared some type of NBC shelter.

I doubt that there would be any type of siren warning from government entities, of an imminent nuclear attack.

China and Russia (even more so) are the only two countries capable of attacking the United States with a full scale nuclear war. Keep alert to any escalating crisis that could justify such an attack. Terrorist countries and organizations, however, could easily attack a city with a small nuclear weapon. There would not be an EMP warning of this type of device, but the damage would be localized. It might affect an area the size of a small city. This type weapon could also be used for EMP in our coastal areas. In this event, there would be no blast, no radiation and no thermal pulse. The cascading effect of an already weakened electrical system, however, could affect the power grid all over the U.S. A small nuclear weapon, detonated at high altitude and used for EMP would do much more damage than would occur if detonated on the ground with the localized NBC effects.

An EMP could bring us to our knees with societal breakdown and probable accompanying anarchy. It is the least expensive and most effective way to destroy America. Millions of people would die within a year, because of the lack of clean water, sanitation, food, medical, and other supplies. The lives of most of these people could be saved if they knew the basics of water purification, food storage, and sheltering. We hope you have made these preparations. Our TACDA mission is to help you learn how to do so. ●

Solar & Electric FOOD DRYER COMPARISON

By Jay R. Whimpey, P.E.
TACDA Board Member

Drying food has been used since earliest recorded history to preserve food for future use. It will continue to be important in survival situations when preserving food without refrigeration will become even more important. The process is very simple, you simply have to heat the material being dried and allow air to flow past it in order to remove the moisture or dehydrate the foods.

Dried foods are very handy and useful. They will last indefinitely as long as they are kept dry and away from high heat. The food reconstitutes relatively easily and returns to its non-dehydrated form by adding a little water. The food is much lighter and the food value is much more concentrated as far as weight and space go. Anyone who is interested in long-term self-sufficiency should learn how to dehydrate food and develop means to do so.

There are many books and publications about food dehydration with an emphasis on maintaining as much moisture in the food as possible while retarding bacterial growth. This unnecessarily complicates the process and may discourage some individuals because it makes the process appear more complicated and difficult. In reality, if you simply dry the food and put it in a sealed container such as a Ziploc bag or jar the food will not support bacterial growth and will not substantially degrade with time as long as it is dry enough.

Fruit can be dipped in sugar solutions for drying which will make it sweeter and also retard bacterial growth but that is largely unnecessary. Some publications have suggested using ascorbic acid or citric acid solutions for coating the fruit before dehydration but this can cause a tendency for the food to cause mild chemical burns while it is in your mouth being reconstituted. This article will focus entirely on the drying process itself.

The drying process is very easy and convenient with an electric dehydrator as long as you have a continuous source of electricity. The electric dehydrator shown in the picture is very effective at drying foods evenly. This particular dryer has 12 trays that can be loaded with fruits, vegetables, or meats and electrically-heated warm air is directed by an electric fan from the base of the unit through a channel on the outside of the tray to a center port where the air is exhausted. This allows for even drying on all the trays.

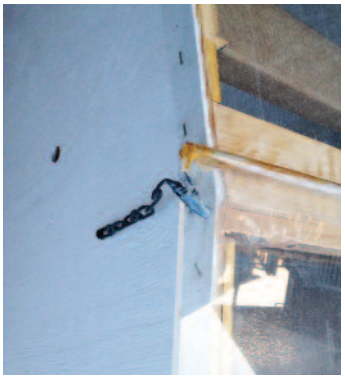
Some less expensive dehydrator models work from the bottom up passing the air from the bottom tray through the rest of the trays and therefore the drying process is not uniform and it is advisable to rotate the trays during the drying process. This dehydrator dried roughly 12 quarts of halved apricots over a period of 40 hours and produced roughly two quarts of dehydrated fruit.

The process used electricity at a maximum rate of 920 Watts and used a total of 18 kilowatt-hour (kWh) for the entire process. The thermostat was set at 140°F for the first 24 hours and then the thermostat was turned down to 125° for the remainder of the process. If you consider electricity being roughly $.10 per kWh then it took $1.80 worth of electricity to dry that fruit.

The apricots were prepared by washing and then halving the fruit, removing the pits, and placing the apricot halves evenly on the 12 trays so that the individual pieces did not touch each

Inside view: insulation and screen shelves

Solar food dryer



Latch on main access door

Vent on upper side

other. This process was relatively simple and effective. The food is considered finished when it is hard and obvious that the moisture is almost entirely removed. If there is any question about drying completeness, try a batch and remove the dried food at several different points in the process, putting the food in sealed containers. If the food does not spoil or mold then it is dry enough. This may take a little trial and error testing.

The problem with a process like this is that it did require a continuous source of electricity for the fan and intermittent higher loads for electrical usage when the heating element would turn on. It would be very inefficient to try and operate a dehydrator like this with a fossil-fueled generator. First of all, the generator would have to run continuously for 40 hours to dry a relatively small amount of fruit and the load jumping from roughly 20 W to 920 W intermittently would be hard on a smaller generator. This is also a substantial load for an alternative electric generating system such as solar panels or wind turbines.

A direct solar powered dehydrator can be constructed very inexpensively that could provide as much capacity as an electric dehydrator and dehydrate the food just as quickly. The solar dehydrator consists of an insulated box built onto a south facing structure with a large vent at the bottom and smaller vents at the top that can be opened and closed in order to control the flow of air.

The front of the box can be constructed of clear plastic flexible sheeting or Plexiglas and access to the box can be gained through doors on the sides or the front of the box. Supports or screen shelving can be added to the box in order to allow for free air flow around the food, or food could be placed directly on the screen shelving. Screen trays can be constructed in order to move fruit in and out of the dryer.

The solar dryer can be used most of the year in temperate climates and even at high altitudes. The drying time will vary with the outside temperature, humidity, and amount of direct sunlight but it is easy to monitor the drying process simply by looking at the fruit on the trays. There is no problem with opening the dehydrator and testing the food to ensure that it is dry enough because the unit heats up very quickly once the doors are closed.

The specific design is not critical and as long as the bottom is totally open for air movement and the doors at the top are large enough the unit should work very well. A meat or candy thermometer can be added to the unit so that the temperature can be controlled somewhat by controlling the airflow with the doors. An obvious improvement that is not shown here would be a thermostatically controlled fan at the top of the unit that would draw air out when the box reached a certain temperature. I'm sure this would greatly improve the efficiency and speed of the drying process but this simple unit shown provided adequate results. The electrical requirement for a small muffin fan at the top or bottom of the unit would be much more manageable with an alternative power system.

There is nothing special about the materials that were used in this project. The foil-faced foam insulation board on the inside of the dehydrator was very effective at holding heat in and reflecting infrared energy back into the dehydrator. The frame of the unit is simple wooden 2x4 construction and the outside skin of the dehydrator was made of quarter inch plywood. There was a door on the side of the unit through the plywood skin with hinges to allow for access, and there was also access to the upper trays using a Plexiglas doorway. The Plexiglas panel was latched to prevent damage from potential windstorms. The construction process is very simple and is well within the capabilities of most anyone that has a desire to try.

It is recommended that everyone look for a suitable place for a solar dehydrator and make it a point to construct such a dehydrator and then experiment with it. A solar dehydrator and the experience to use it would be very useful in a survival situation and can also be a lot of fun. I would suggest you try it.

Survival Landscaping

By Jonathan B. and Kylene Anne Jones

The cold hard fact is that it is almost impossible to store enough nutrient rich foods to survive a long term event. Yes, you might be able to stockpile 30 years-worth of wheat, rice, beans, dehydrated foods, and other foundation grains if you have enough room. However, you cannot stockpile fresh fruits and vegetables which provide optimal health, nutrition and go a long way toward improved immune function and disease suppression.

You might think that your next best bet would be to count on identifying edible plants in the wild to supplement your diet. After a taste-test tour eating wild plants, we immediately went and bought more food storage. Edible? Yes. Tasty and filling, not even close. We burned more calories finding the plants than we received by eating them.

According to Marjory Wildcraft of www.GrowYourOwnGroceries.com, it is just too land intensive to realistically support a family on the hunter-gatherer system. She states:

Let's start first off with the almost magical dream of the pure hunter/gatherer. I often hear this one from those concerned about a collapse of civilization. Just how much land does it take to support you without destroying all the wildlife and plant populations? How much area do you need in order to live sustainably as a hunter/gatherer?

Since there are so few actual hunter/gathers left alive on the planet, and the few places where they do still exist tend to be jungles which look nothing like anything in North America, we will turn to anthropological data. The quick and easy answer is that traditional peoples used on average, about 10 square miles per person. Ten square miles is 6,400 acres - that is for one person.

So what's the answer? It just might include creating your very own self-sustaining food supply. Call it survival landscaping, permaculture, sustainable agriculture or whatever you like. The goal is to work with nature to create a truly sustainable system. A garden paradise that requires little or no human intervention once established. Due to the "natural looking" nature of this type of landscape most individuals would never suspect the amount of life-saving food growing in the tangle. Thus protecting your food supplies in plain sight.

The objective is to create an environment which requires very little human intervention once it is established.

The ideal permaculture design produces food year after year without weeding, pruning, tilling, fertilizing or using pesticides and herbicides. The system is perfectly balanced for the local climate.

The ideal permaculture design produces food year after year without weeding, pruning, tilling, fertilizing or using pesticides and herbicides. The system is perfectly balanced for the local climate. It is possible to accomplish permaculture landscape on a half-acre city lot as well as in a more spacious country environment. Permaculture takes many years to establish and become resilient to changing conditions.

Selection of plants is critical to take best advantage of local climate conditions, ensure natural balance and to extend the harvest throughout the entire growing season. There are a growing number of great reference books to guide you through the process. Many of the authors recommend a more "natural or wild looking" landscape which is perfect for a remote bug out location, but may not be welcomed in a gated community.

Delightful results can also be achieved by applying permaculture principles on a small urban lot that has a more trimmed and controlled appearance. Food does not have to be grown in an orchard or in neat weed-free rows. Even annual vegetables can be creatively interspersed with landscape to create a unique functional beauty. Limited space requires creative solutions. Consider vertical growing possibilities such as arbors, trellises and arches. Permaculture designs allow grapes or other vines to grow right up tree trunks. Container plants can extend your growing area to decks and patios. Use your imagination to produce a stunning, productive yard.

Food does not have to be grown in an orchard or in neat weed-free rows.

Strategically plant fruit and nut trees. Apple trees come in miniature dwarf, semi-dwarf and standard sizes. There is the perfect size to fit your landscape. Depending on the type and size of the tree, an apple tree can produce hundreds of pounds of apples each year to be stored, dried, or bottled as needed. A walnut tree is a wonderful large shade tree producing up to 150 pounds of nuts annually, providing needed fats, protein and calories. Fruit and nut trees are a long term investment and would supplement your diet and extend your food stores during a prolonged disaster scenario as well as enriching your diet today.

Consider what resources you currently have growing in your yard. Would it be possible to plant grape vines or berry bushes in with your current landscape? Remove a non-productive shrub and replace it with a life-saving nutritional plant? How about including some medicinal or culinary herbs? Those dried beans are going to taste a whole lot better with a few spices. If your current lifestyle does not allow time to harvest your bounty, don't worry about it. Healthy soil is critical for a successful survival garden. Compost whatever you don't use along with grass clippings and leaves to build your soil for a time when you might be dependent upon what you can produce on your own land for survival.

As you prepare for the challenges in our future, consider investing in living food sources in addition to your long term dry food stores. The security a full pantry and productive garden provide are worth the time and resources required to achieve them. ●

Kylene and Jonathan Jones are authors of The Provident Prepper – A Common-Sense Guide to Preparing for Emergencies. Visit them at www.TheProvidentPrepper.org and www.YourFamilyArk.org.

Surviving a HOUSE FIRE

LESSONS LEARNED

By Bruce Curley
TACDA Board Member
www.poetslife.blogspot.com

It was 6 a.m. on June 12th, 2003 and I had been in a very deep sleep. Now, half asleep, half awake, I could not understand why my wife, Robin, was screaming so loudly, so viscerally, and so rapidly. Her scream kept going up my spine and into my cerebral cortex stem.

I jumped out of bed, ran out of the bedroom, saw my youngest, Eamon, then 6-years old, hiding in his open closet in his bedroom in my peripheral vision, and leapt down the stairs. As I did, an acrid smoke assaulted my eyes filling them with water and everything became a blur. My wife continued to scream. Between my blurry eyes and the oily black smoke swirling in circles from four feet off the ground to the ceiling, I could not see much, even though I had accidently gone to sleep with my contacts in.

As Robin continued to scream, I followed her scream to find her near the door to the garage. I could make out her legs but there was too much smoke to see anymore of her. I touched her shoulder and she screamed again. I had no idea then that she was burned. *"Get Eamon! Get Eamon! Get Eamon!"* she screamed at me.

"What?" I had no idea what she meant.

"*He's in the garage! He's in the garage! Go get him!*"

"*He's upstairs*" I yelled. The fire was so loud it was tough to hear her. As she was burned, it must have been even harder for her to hear me. And as I could barely see with all the acrid smoke swirling around, she was probably having even more trouble seeing.

Robin did not have the same advantage I had of having seen Eamon, and her fear was understandable given that Eamon used to sleep walk. We would find him in the bathroom or kitchen and other places in the house. My wife thought he walked into the garage and started the fire. She heard exploding paint cans and other banging noises in the garage, figured he

was in there, and had opened the garage door.

As the fire was fully engaged by then, the backdraft hit her when she opened the door. (What she did not know is that a defective Black & Decker cordless electric lawnmower had started the fire. An electrical component in the lawnmower overheated and caused the fire.)

I tried to push her toward the one remaining door that was not on fire, but she remained rigid and refused to move. "*I'm not leaving until I see Eamon!*" Feeling how stiff she was, I knew she had to see him if she were to leave. I also had to get my older son Josh out as well, so I ran upstairs.

Eamon was still in his room, staring ahead. I took his hand and led him to Josh's room. At 13, Josh was still sound asleep in a teen dream. I yelled at him repeatedly and he barely moved. I pulled him out of his bed and he was till groggy. *"Listen to me! I have to get Eamon down to your mother! Can you get yourself out the front door?"*

He began to awaken and stood up. Again, I yelled, "*Run out the front door as fast as you can!"*

I went back down the stairs carrying Eamon in front of me, made our way through the acrid smoke that was making it difficult to breath, and found Robin, still frozen in place.

"Here's Eamon!" I said, and put Eamon right in front of her.

"Where?" With the smoke so thick she still could not see him, so I put my hand on her neck and pushed her eyes down so she could see him. Some of her adrenaline must have released because she became less rigid and let me lead her and Eamon to the front door.

As we did, Josh was rushing down the stairs with his T-shirt in front of him trying to fan the smoke away. I took one last look back as I pushed them all out the front door. A huge white, yellow, purple green fireball was spinning through the area we had been in just seconds earlier.

Immediately outside the house, a neighbor had turned on our hose and was trying to use it on the fire. I started to help him but realized it was useless. "We'll have to leave it to the professionals" I said, and we both dropped the hose.

I saw that the garage was completely engaged along with the two pine trees in front of it. Some of the flames were even burning my truck about 15 feet away. I turned to Robin and tried to hug her. She recoiled in pain. Now I knew she had been burned even though the burn had yet to show on the skin.

We went across the street to a neighbor's and called 911. The call center let us know that they were aware of the fire and help was on the way.

I saw a local news woman with a camera crew on my lawn. I walked up to the fire chief aware that he was the law within that fire zone. "Get her off my property!" I demanded.

"I can't keep her out of the street."

"I know. But I want her off my property."

As I passed by her she shoved a microphone in my face and said, "I heard your wife was killed in the fire. Is that true?" It was all I could do to keep walking.

When I got back to my neighbor's house, Robin started crying. When I asked how she was, she kept repeating that her skin hurt. Within half an hour, a State Medical Unit helicopter landed in the street and medivacked her to the Burn Unit at Johns Hopkins.

Fire engines arrived and professional fire fighters began to fight the fire. I called my insurance company, USAA, and they said they would send over a local agent in about an hour. A fire fighter asked me if I had anything of value in the house I wanted to get out.

"Yes. My computers, my guns and ammo, and my lockbox with my important papers."

"Let's do it." He smashed open the French door downstairs and I was able to move my guns and ammo to my neighbor's house.

True to their word, USAA arrived, made an assessment, and wrote me a check for $17,000. That sounds like a large amount, but three weeks later I had to buy beds, clothes, and essentials from BJ's, plus put down first and last month's rent and a deposit on an apartment, leaving little left. Still, as one fire fighter said, "At least you have insurance. The ones I really feel sorry for are the ones who don't have insurance."

As the fire fighters put out hot spots, I stood sweating (it was an extremely hot day) in the backyard with a circle of men, all of who wanted some piece of the demolition, tear down, or house rebuild. One of them was actually the second person to arrive at the fire scene. That should have been a clue. "We can do it all - tear down, clean up, and rebuild!" and he gave me his card. I looked to my USAA agent. "Do you know him?"

"He's on our list."

"Do you trust them?"

"He's on our list." He said again.

So I signed. Huge mistake I would later learn.

That day was frenetic with tasks. I had to call my family members and my wife's family members to tell them about the fire. People are fascinated by fire and drove past all day or dropped by to ask about the fire. I had to choose what clothes to keep for cleaning and what clothes to discard. (In retrospect, I should have discarded them all. Cleaning does not remove the smell of the fire from the fibers.)

I had to salvage what could be salvaged by carrying it out into the yard for staging. One thing my wife asked before she was medivacked away was for me to find the wedding rings and about three of her special plants. I was only able to locate the plants.

I'm sure everyone's lessons learned after a house fire are different, but here are mine:

Mitigation steps before the fire

I did not have a smoke detector in the garage before the fire. I should have. Our garage held materials (rags, rubber, two huge one inch rubber mats, tires, plastic, wood) and accelerants (oil, gas, paint, chemicals) that resulted in a massive fireball. Friends who live eight miles away told me they saw the plume. When I saw the fireball, but briefly, it was as alive as any fire fighter I've known has told me. It was a small ball spinning rapidly and throwing flames in

every direction. A fire alarm in the garage might have alerted us to the danger when the electric lawn mower was only smoking *before* the fire started.

Keep your garage sparse

Before the fire, the garage was where everything extra or that wouldn't fit in the house was stored. As I had bought the house 18 months prior and was in the process of fixing up the house, I used the woodshop the prior owner built to store, cut, design and create wood fixes to the house. There was a lot of lumber in the garage. There was also a lot of paint cans from all the painting we did. I had two massive rubber mats on the floor for the cars. And there was all kinds of "stuff" that should have gone to the dump. Now, I throw out most things I don't use. My current garage is very sparse.

Allow yourself to lose it

I had been on the phone with the Burn Unit all day and they said it was OK for me to visit. When I entered Robin's hospital room, it took all my strength to not react. Burns do not show up immediately but they were now bubbling up on her face, neck, shoulder and arm. Honestly, I would have to say that I barely recognized my wife. We spoke with an intimacy that only a wife and husband who have been spared could.

I drove home from Baltimore and it finally hit me. I was exhausted and began to reflect on how Robin looked and how she hurt and began to cry like a baby. I had been so busy that day I had not taken time to reflect on what happened and how my life had changed. Now I was bawling and falling asleep. Not good. I called my brother and asked him to talk me home. He kept talking to me the whole way home and I was able to get some rest, finally. Later, I realized how important that cry was in helping me to recover from the event.

Learn about depreciation

Whatever you think depreciation means, it has a different meaning for your insurance company. I was up until two and three a.m. for a week after the fire, filling out a depreciation template for my insurance company. It is one way they determine what your possessions were worth to reimburse you. Whatever you may think your items are worth, they are worth far less. For example, that washer and drier you bought for $1,200 five years ago may only be "worth" $100, according to an insurance agent.

Be prepared to make your case

Numerous times you may have to assert your case, facts, cause or reasons. For example, I listed works of art as a loss. My insurance company wanted proof it was real art and stated that what many people think is art, is not. Fortunately, the art work I had was given to me by a very good friend who is an artist and surgeon. He also had a showing in Manhattan at the time. We had the curator of the art show call my insurance company and submit a letter of proof. They conceded and the extra $9,000 for those paintings helped my wife design the kitchen she wanted.

Accept some help, not all

Robin's cousin Janie was good enough to let us stay with her after the fire. We stayed for three weeks and I spent time each day trying to find us our own place. (One landlord doubled the rent when he found our house had just burned down.) We could have stayed with Janie until the new house was rebuilt, but we felt that would not have been fair to her.

A big investment guy sent me his old computer to replace mine. It was not a good computer and I had to send it back a week later. He was miffed. A neighbor wanted to give us their old clothes. I said we would be fine. She was also miffed. Many, with the best of intentions, will try to give you extra stuff you may not need or want. Even when you politely decline it, they may be miffed. But, so it goes.

Secure your valuable papers in a fireproof lock box

Our baptismal and marriage certificates, passports, passwords and account numbers, photos, mortgage and other critical papers were in a fireproof box. In a fire, whatever the fire does not damage, the water will damage when they put out the fire. Think of the documents you will need to begin life anew. Keep copies of all those papers somewhere else. Here is why:

When we went to the Motor Vehicle Administration after my wife got out of the hospital, the representative was openly hostile to her, even as she sat there wrapped like a mummy. I had to have a talk with him and got him to finally check their records. My wallet and her purse were turned into paste in the kitchen. I know because I spent three days trying to find our wedding rings and driver's licenses in the paste. If we had those documents, we could have avoided the MVA.

Know your contractors

You always must be vigilant with contractors, but when you are under enormous pressure to rebuild for your family, you are particularly vulnerable. Some dishonest contractors will take advantage of that. Sadly, that was my experience. I signed with the "dishonest" contractor because he was right there with assurance, and was on my insurance agents "list." (You should know that that list is not necessarily an endorsement, but what did I know?)

Turns out, the dishonest contractor had contracted out the demolition and cleanup to a company who used children as laborers. When I tried to talk about that and numerous other issues I

had with the way they were doing things, I was ignored, until I said I was going to hire another contractor for the house rebuild. Then they threatened to sue me, as I had signed a contract with them.

My brother is a lawyer and found eight different ways that I could get out of the contract, including the fact that they misspelled my name. He wrote a letter, and they finally backed off.

Know your contractors II

Since we were not using the original contractor to rebuild the house, we had to interview other contractors fast. One presented a beautiful architectural drawing and plans. Another was a local carpenter who suggested combining the three rooms upstairs and downstairs into two big rooms, creating a cathedral ceiling upstairs. He also said he was willing to add the seven extra windows we wanted so we could get out easily if another fire happened.

Robin wanted to go with the local contractor. When I asked my wife why she did not like the contractor with the architectural drawings, she said, "I don't like the way he looked at me." Again, you have to watch those contractors. Fortunately, the local contractor did a great job.

Know your contractors III

"Did your storage company provide you with climate control, air conditioned, locked storage for your goods? We just got a bill from them and it seems rather high." (If you consider a 130 degree storage container in a hot, broken down parking lot as that, I guess so).

The storage company representative was one of the many men who had showed up the day of the fire. He promised much and delivered none of it. In their hot storage unit, often with Eamon at my side, I went through my possessions on multiple occasions, separating what could be salvaged from what had to be tossed out. In the end, my insurance company only ended up paying them half of what they asked, since we didn't get what we were offered.

Consult with your school system policies

I used to drive my son to and from school each morning and evening. I thought he would be able to return to school once the rebuild was completed. Wrong. I received a stern note from the local school administration saying I would owe them $6,200 in January for Eamon to continue to attend school there. (My older one had graduated from high school that summer so that was fine.)

When I called and asked why I was expected to pay when I still paid taxes on our property, I was told, "Because you no longer live in Carroll County." That was true. Our apartment was in Frederick as I could not find an apartment in Carroll County.

"Well, if we allow you that benefit, then we have to allow all those people from Baltimore County to attend school in Carroll." So we pushed our contractor to finish the rebuild before January 1st. He got us back into our house on December 23rd.

Be willing to leave possessions behind

At first, I saved almost everything. But soon enough, I realized that I could not possibly repair, fix, or clean everything, so I began to discard. Books that I had published were especially hard to discard, but once I made the decision that I really didn't need to save everything, it made it easier to get rid of.

Continue to live a normal life even in abnormal circumstances

The week after the fire, I signed Eamon up for an evening karate class at his school. It would give him structure, discipline, physical release and goals, all of which are good at any time, but especially now given the circumstances. My older son, Josh, had planned to go on his high school graduation trip across the country the following week, and we made sure he took it!

I was writing a store of knowledge manual and procedures for an anthrax biohazard detection system skunk works project at the time. By going back to work immediately, it gave me structure, discipline and focus, thus keeping me from thinking about the fire and its issues.

My wife called me just before she was supposed to be released from the hospital and told me to meet her at a hotel in Baltimore. She had signed herself out.

When I asked why, she said, "I will not miss Josh's graduation for anything." So although she was still wrapped like a mummy at the graduation, she made it.

Upon reflection, I believe God used me to help Him save my family that day. Fire fighters on the scene all wanted to see my wife because they said they had never seen anyone who had survived a backdraft. Given how rapidly that fire spread, we had only one way out and everyone got out. I would like to thank God for saving my wife, myself, and my two sons on that day. •

explosion in Minnesota, a coal mine disaster in Illinois, a carbon monoxide poisoning in Chicago, and more. Altogether, they interviewed almost a thousand people. The White County tornado study was the crowning jewel of the program, producing a vast trove of data, to this day still one of the most complete, thorough analyses of a single disaster ever produced.

What they learned surprised them.

It was common knowledge that, in a disaster, people lose their heads, they panic and flee mindlessly, often putting themselves in greater danger than if they had stayed put. In fact, "in the face of danger, most people do not lose self-control and run in panic, break down in hysterics, or 'freeze' on the spot. Most individuals in a crisis situation actively attempt to cope with it. Individuals may be greatly afraid, their behavior may be very highly anxiety-motivated, but they will act – alone and with others – to control the situation they see themselves faced with."

Red Cross Disaster Relief Seminar, Trinidad, June 1968

It was common knowledge that, in a disaster, looting inevitably breaks out, that military force is necessary to prevent depredation and chaos. In fact, while almost everyone had heard of someone being looted, actual instances of looting were rare. In the White County tornado study, there were many instances of onlookers stealing small items as souvenirs, but only two cases of actual looting for personal gain (a cash register and a grand piano).

It was common knowledge that, in a disaster, only trained first responders will act to rescue the trapped and the injured, while the bulk of the populace waits apathetically for help. In fact, after the tornadoes hit Judsonia, a quarter of the population – more than half of the town's adult male survivors – began working to free people trapped in rubble and care for the wounded hours before outside help arrived.

As Quarantelli, one of the NORC researchers, put it, they quickly "learned the basic principle that many of the central beliefs about disasters held by planners, operational responders, and even researchers were mostly mythological." The ACC contract was premised on faulty assumptions. In disasters, keeping order is not the problem. The problem is coordination – there were never shortages of willing volunteers for whatever tasks needed doing, but people generally did not know what was needed. Individuals had no sense of the larger situation, and simply reacted to what they saw around them. Often they initially didn't even realize that the disaster extended beyond their own house or their own block. The only major problem of control was people outside the disaster zone rushing into the effected area to find relatives, help the wounded, or simply sightsee, clogging roads and preventing emergency vehicles from passing.

NORC's contract with the ACC ended in 1954. But by this point there was already another organization working in the area. In 1952, the Army, Navy, and Air Force Medical Services asked the National Academy of Sciences (NAS) to fund a program of disaster research, to continue NORC's work. Since funding was forthcoming, the NAS was willing, and they established a Committee on Disaster Studies, later renamed the Disaster Research Group. Charles Fritz and Harry Williams, another sociologist, were picked to head the project – Fritz was actually the first sociologist to work full-time for the NAS. The committee

published a series of titles on disaster research and supported continued field studies of disasters, including the first study outside the United States, on a flood in Holland in 1953.

Fritz and Williams left the Disaster Research Group in 1959, and the Group shut down in 1962. But the baton was quickly picked up at Ohio State University, where Enrico Quarantelli had landed after graduating from Chicago.

DRC researcher in Jackson, Mississippi in 1966, conducting field research following a tornado.

Quarantelli temporarily left the disaster research field after finishing his Master's degree, but stayed in touch with Fritz. In 1961, Russell Dynes and Eugene Haas, two other OSU sociologists, approached him. They were putting together a proposal to fund more field research, had heard of his involvement with the NORC study, and wanted him to join their project, which Quarantelli agreed to. Besides field research, they also asked for money to conduct laboratory simulations studies, which were very trendy in social science in the early '60s. The three asked the National Science Foundation for $50,000 over 18 months for the project.

Somehow – they never did learn how – their request got into the hands of the Office of Civil Defense (OCD). Before they had even received the rejection notice from the National Science Foundation, they got a call from an official of the OCD, who invited them to come to Washington to meet with a group from Civil Defense and the Air Force Office of Scientific Research. Jim Kerr, one of the OCD officers, suggested that they would be more interested in supporting an entire center to study disasters rather than just a series of field studies. He suggested $200,000 per year as a starting budget, with a five-year initial contract. The Air Force was more interested in the laboratory simulations studies, and indicated they would be willing to chip in as well. The three sociologists quickly agreed, and the Disaster Research Center (DRC) was inaugurated in the fall of 1963.

The DRC would be the primary center of disaster research for the next 20 years. Haas ran the simulations lab, while Quarantelli and Dynes focused on field studies. The government, despite paying for the Center, gave them considerable freedom to pursue their own interests; according to Quarantelli, there "was very little effort made to direct what should be studied and/or how it should be studied."

Quarantelli, Dynes, and Haas used this freedom to shift the focus of disaster research away from individual reactions, the focus of earlier research with its emphasis on panic and hysteria, towards how first responders planned for and coped with disasters. DRC field researchers – like NORC, mostly sociology graduate students – were required to keep a go bag ready at all times and to head for the airport on a moment's notice. They would fly to disasters still in progress and attach themselves as observers to emergency command staffs – first responders sometimes even asked them for advice. Haas, back at the university, had volunteers perform various tasks to measure how their behavior changed under stress, culminating in a simulation of a plane crash for a group of police dispatchers. The simulation work ended in the late '60s after the Air

REAL REACTIONS TO REAL DISASTERS

1. Most people do not panic or "lose their heads" in a disaster. Most people act rationally, attempting to protect themselves and their loved ones. Although panic does occur, it is very rare.

2. Looting, violence, and other antisocial acts are much rarer than people believe. Most people behave prosocially and try to help others after disaster events.

3. The biggest problem in social control after a disaster is not enforcing order, it is coordination and informing the public. There are almost always more volunteers and donated goods then can actually be used, but they are provided without regard to what is actually needed or wanted.

In general, the public has a false understanding of its own behavior in disasters, thanks in large part to inaccurate disaster movies and media coverage. While there are exceptions, most people react to disasters remarkably well.

Force lost interest and Haas left Ohio State, but the field studies continued, expanding into studying civil unrest during the turbulent years of the Vietnam War.

Unfortunately, Quarantelli and his coworkers eventually realized that the reason their sponsors allowed them so much freedom was because most of them weren't paying attention. Quarantelli said they "learned later ... [OCD and Air Force] officials saw the proposal as something ... to show they were doing something to meet the new threat to American society." "Sponsored research, at least in the early days, was primarily commissioned at the highest levels of the agencies for reasons other than seeking answers to practical problems ... Disaster research was initiated (and the initiation came from the agencies and not social scientists) because of internal bureaucratic pressure for agencies to be current with the post World War II phenomena of social science research being on the agenda of many government groups."

An OCD-sponsored study of local civil defense offices was a prime example. The DRC interviewed a number of officials at these offices, and found that most of them were not particularly interested in preparing for a nuclear war. They were spending their time preparing for natural disasters and industrial accidents, with perhaps some work on fallout shelters as a sideline. Quarantelli and Dynes told their OCD sponsors that they needed to start working on smaller-scale disasters as well if they wanted to gain the local offices' cooperation in preparing for a nuclear conflict. But the OCD wasn't interested – their policy was that they were exclusively concerned with nuclear war, and that policy was not going to change just because it wasn't working, at least not yet.

But, while the OCD may not have been paying attention, others were. Information from disaster research began to appear in textbooks to train first responders. In the 1970's, sociologists outside the DRC started to take an interest – a sometimes very critical interest – in the new field. The DRC, now located at the University of Delaware, remains a key center of the field, and is still funded by the OCD's descendant, the Federal Emergency Management Agency. Today, disaster research is a healthy, flourishing field, one of the more unusual progeny of the Cold War. ●

EBOLA, *continued from page 17*

whatever, I suggest having some Vitamin C (as ascorbic acid, calcium ascorbate or sodium ascorbate) on hand. I would suggest getting plenty as it can be stored for a very long time and is relatively inexpensive. You can purchase ascorbic acid crystals (and just about everything else under the sun) from sources such as Amazon.com.

The rule at our house is that when anyone gets sick, *everyone* takes the medicine (that's herbal medicine). By following the bowel tolerance method, you can also get an indication of the body's level of health. You can test or dose someone to the point of bowel tolerance. If someone can all of a sudden take 50 grams of Vitamin C, then something may be up.

In the case of Ebola - there is a 2-21 day incubation period (most often 4-9 days). This means that a person can be infected with Ebola and actively spreading the disease *before* they ever have a symptom.

While medical reporters in the United States continue to assure us that infection can only occur from direct person-to-person contact there are several published studies that suggest this virus has been spread from aerosol droplets (a sneeze or cough). The Public Health Agency of Canada warns of this on their website. http://www.phac-aspc.gc.ca/lab-bio/res/psds-ftss/ebola-eng.php

In preventing and treating conditions with so many unknowns, I recommend using several approaches simultaneously. Take your herbal remedies to boost and strengthen the immune system. Use your silver and essential oils. But also consider Vitamin C. For more information on natural remedies to strengthen your immune system see my blog article on Influenza. http://drkylechristensen.blogspot.com/2014/01/prepared-for-flu-during-sunday-school.html

Is Ebola going to become the next worldwide pandemic? No one really knows. However, epidemiologists assure us that something is coming – if not now, then sometime in our future. Discussions of such dire events and illnesses are not pleasant, but it is far better to be prepared than hope we will always be immune from disaster. Being prepared as best you can "just in case" is prudent advice that perhaps can give a little peace of mind. ●

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TACDA will now be holding our Member Conference every other year. Please join us in the fall of 2015 … we would love to see you.