# Surviving Mold, Houston, Texas August 2017
# In the Wake of the Flood

**Rising waters lead to rising fears in Texas after previous repeated failures of government agencies to protect people's health from toxic, water damaged buildings**

Floods from Hurricanes Katrina and Sandy in our recent past have shown us just how poorly Federal and Public Health agencies (FEMA, HSA, EPA, CDC, HHS, HUD) have performed in helping flood victims understand the dangers of reoccupying buildings that have experienced massive and widespread water intrusion - including homes, schools and workplaces. Once microbes gain residence in these water damaged buildings (WDB) an epidemic of debilitating illness will soon follow consequent upon exposure to molds and bacteria, biotoxins, inflammagens and their volatile organic compounds. The illness is a chronic inflammatory response syndrome (CIRS-WDB). The responsible agencies continue to ignore well-published studies reporting on thousands of patients in case/control, prospective and double-blind, placebo controlled trials.

If Hurricane Harvey has ravaged the Southeast Texas as a Category 4 hurricane, will the next Category 5 do more damage somewhere else?

Simply stated: wet buildings make genetically susceptible people acutely, and then chronically ill. We know why, we know how, we know how to measure the injury, including brain injury as shown by a special MRI software program called NeuroQuant, and we know the underlying gene basis for the injuries. All these concepts have been published after peer review.

Let's count the reasons why we must insist on medical accountability in Houston and the Gulf Coast. Say only 10,000,000 residents are exposed to WDB. Data collected for over 15 years shows that 25% of humans are genetically predisposed to develop CIRS illness after exposure. That means 2,500,000 people are at risk for acquiring a treatable illness, one that won't self-heal. Who would disagree with simple, cost effective screening measures that can be performed easily, even in 1000-year flood zones? Measures like visual contrast sensitivity (VCS) let us monitor people exposed to WDBs.

Just like those victims of exposure from Katrina and Sandy, we *will see* "Harvey-illness" over the next several weeks. It won't be hard to find out who might be sickened by toxigens and inflammagens made by microbes that flourish in WDB. Just look at the symptoms:

1. Fatigue that came out of the blue. No - not stress.
2. Respiratory problems, both sinus and lung. No - not asthma.
3. Cognitive issues. Memory, concentration and more. No - not PTSD.
4. Joint/muscle problems. Every day, but no day is the same. No - not fibromyalgia.

5. Digestive problems. No - not reflux and not irritable bowel. Simply MSH deficiency.
6. Unusual pains, frequent urination, static shocks, cramping, night sweats, tingling and numbness. No - not MS.
7. The list goes on. NEVER make assumptions that CIRS is NOT present when screening says it is likely to be present.

What we will hear (the misleading talking has already started) is a series of statements, made by authorities pontificating about mold. That scenario has already made it to my morning MSN home page. I call the public health statements "false claims." The truth follows:

False claim: Yes, allergy to mold is a problem. ***Truth***: It is not THE problem. Inflammation is the problem.
False claim: Yes, be careful cleaning out wet homes. ***Truth***: Do not enter a contaminated environment without protection. N95 masks won't cut it. I cringed tonight watching homeowners using painter's masks as they re-enter their water-damaged homes. Really bad idea.
False claim: Yes, get help for stress and PTSD. ***Truth***: Have your NeuroQuant done and your labs completed: they will confirm the CIRS. Treatment is next.
False claim: You will feel better over time with rest and exercise. ***Truth***: Baloney. Waiting for self-healing means more genomic and proteomic disasters are guaranteed to come your way. Adding exercise beyond your anaerobic threshold will only make you WORSE.
False claim: Your cognitive dysfunction is just stress and worry. Relax. Mold doesn't hurt people. ***Truth***: Brain injury from WDB has a clear and distinctive fingerprint shown on an FDA-cleared software program. Without treatment, the brain injury won't get better.
False claim: Don't bother testing your home. ***Truth***: the ribotoxins produced by particular organisms, not just molds, are paramount to the metabolic problems CIRS patients have. Remember NIOSH told people in New Orleans to NOT measure, but then reported that levels of molds were not elevated.
False claim: Well, I haven't heard of these findings. ***Truth***: You have a duty to be well informed about WDB. You have the imprimatur of authority as a representative of our academic institutions and governmental agencies. Yet, you don't know the literature, you have never treated any CIRS patients and you have no credibility about moldy buildings and health.

**Conclusion.**

Make sure your Fact Checker is on over the next couple of weeks. There is no academic basis for the false claims noted above. Everything I am telling you as Truth is peer reviewed and published. Don't accept junk science. Don't accept wacko blogs on the Internet as Gospel. Demand objective data; demand publication. When the newbie "Mold expert" appears on TV, demand to see his practice data. He won't have any, yet he is being touted as an expert by a media agent nonetheless. Data, data data; where is the data? CIRS is deadly serious. We can't accept guessing as expert opinion. When the TV doc talks about no-mold diets, just mute.

Will government agencies again fail patients exposed to WDB? Or will President Trump recognize the failure of the prior administrations and choose to act URGENTLY to safeguard the health of citizens of Texas and Louisiana? As we see the devastation in areas drenched by Hurricane Harvey's record rainfall, with thousands of buildings filled with more than a foot of water, I fear for a repeat of what physicians saw after Hurricanes Katrina in 2005 and Sandy in 2012: undiagnosed, untreated patients left to suffer multi-symptom, multi-system illness in the face of rigorous science that defines who is sickened by WDB's.

What we saw then was an uncoordinated, illogical, unscientific and erratic response of Federal agencies. We were told that the exposure to the interior environment of WDB might create some allergic reaction but nothing else. That was wrong. We were told by NIOSH and CDC that homeowners could safely remove water-damaged materials from their homes, including drywall and insulation, to put them in piles in front of their homes. That was wrong. The Red Cross assisted with recovery from Katrina by issuing small shovels and pails, like what we see used by children on the beach, to help scoop out wet insulation. That was wrong. Remember the FEMA trailers, with doors and windows wide open to air out the formaldehyde, right next to piles of soggy building materials. Where are all the removed soggy materials going to go?

**Katrina failure**

Later, we heard that some patients exposed to Katrina had a cough but no other symptoms were found. That was wrong. We were told by NIOSH that use of respirators would protect health (a 43-page instruction manual was included). That was wrong.

Never did any physician trained in diagnosis and treatment of CIRS caused by exposure to the interior environment of WDB have any say in the governmental response. Result: FAILURE TO PROTECT HEALTH.

Read Dr. Shoemaker's chapter in Surviving Mold when he and Dr. Richard Lipsey were sent to Katrina-driven homeless shelters in February of 2006 by the US Senate Health Education Labor Committee, then chaired by Senator Edward Kennedy. These experts traveled to St. Bernard's Parish, near the infamous 9$^{th}$ Ward, to evaluate homeless patients who were being housed on a cruise ship, the Scotia Prince. Review the detailed report to HEAL and St. Bernard's Parish; it is accessed here.

The same sloppy approach was also seen as to patients sickened by exposure to WDB's after Hurricane Sandy. At no time was an epidemiologic study performed that included a CIRS physician. At no time were patients evaluated with symptoms rosters or visual contrast sensitivity (VCS) tests after exposure, as simple indicators of the development of an

inflammatory syndrome. No baseline studies were subsequently performed, including NeuroQuant studies of the brain, transcriptomic studies of peripheral white blood cells, or proteomic studies of lab abnormalities. Such techniques have been peer-reviewed and published in cohorts involving thousands of patients.

Why do we demand accurate use of science in Houston? Because large numbers of people will not know that they have a correctable illness. If symptoms continue to be misdiagnosed, ignored and untreated, fatigue, respiratory problems, joint problems and, most concerning, cognitive issues that look like early Alzheimer's disease, will not abate.

Read also about the dubious prior performance of NIOSH/CDC challenging published science regarding human health in the matter of the Fortier High School. This was a water-damaged building near New Orleans. NIOSH stated their intent to show that Shoemaker's published findings were incorrect. Unfortunately for NIOSH, they were shown by their own data that ***they were wrong***. They confirmed everything our group had published for years. When we confirm presence of illness, our duty is to treat. We have published our data.

NIOSH treated no one. Have the Tuskegee lessons not been learned?
https://www.cdc.gov/tuskegee/timeline.htm

## What will we see inside water logged Houston homes?

By the time waters recede from living rooms enough to permit initiation of cleaning, microbial growth will already be found indoors. The diversity of microbes thriving in wet buildings with readily available sources of foodstuffs will give rise to growth, not just of fungi, not just of mold, but more importantly, mycobacteria, bacteria and actinomycetes. The greatest danger in WDB's is not from living microbes. 99% of the danger is from dead fragments of microbes (antigens). As these microorganisms die, their minute, invisible cellular fragments and compounds become airborne. If inhaled, these particulates will stimulate an inflammatory response. These, chemical compounds will be densely present in air, on the walls, on furniture, in carpets and on possessions. Breathing contaminated air will result in a predictable series of illness events.

In the face of dysregulated, ongoing stimulation of inflammation, the human genome becomes an important director of all the bad things that are going to happen. Differential gene expression takes over, suppressing anti-inflammatory mechanisms, while activating pro-inflammatory mechanisms. Compounds breathed in have additional toxicogenomic effects including dysregulation of genes involved in the complex molecules required for making proteins, the ribosomes. More importantly, the regulation of genes involved in mitochondrial function (producing energy) also begins to fail.

Now with adverse gene activation in hand, the tide swings to over-production of inflammatory response to ongoing carriage of antigens. This host (patient) response becomes the illness and that illness will persist whether or not there is ongoing exposure to the water-damaged building. The host response, brilliantly described by Lewis Thomas, M.D., in 1972 in his "Notes of a Biology Watcher," a series published in the New England Journal of Medicine, describes the theory of host over-reaction as eloquently as can be imagined. The host's response becomes the illness. Fascinating but complex. As complex as your immune system.

As levels of the neuropeptide MSH fall, additional hormones under control of MSH begin to fail.

- Regulation of adrenal function becomes abnormal.
- Regulation of dehydration becomes abnormal.
- Regulation of androgens and more; all become abnormal.

These abnormalities are readily identified by commercial laboratories, including LabCorp and Quest. Both have been running these tests for years.

Innate immune inflammation can be identified quickly in blood, not by ESR or CRP, but by tests less familiar, including TGF beta-1, C4a and MMP-9. What we are looking at is the development of a complex pathophysiology based on unregulated inflammation, lack of genomic control and multiple downstream adverse events involving hormone systems that control stress responses, fluids, and both male and female hormone production, ***within one month*** of exposure to a WDB.

Within a month, we will see a decline in exercise tolerance. People will say, "If I try to do a little extra on Monday, I am wiped out on Tuesday and Wednesday both."

We will see shortness of breath with far less exertion than before that will be incorrectly called asthma. We will see difficulty with concentration and executive cognitive function that will quickly be labelled as a PTSD. "Why, just look at what these people have been through. They lost everything and barely survived themselves. Of course, it is PTSD." No, it is not. Just look at the NeuroQuant. We can have no tolerance for assumptions, guesses and junk science.

Within two months of exposure, abnormalities of cognitive function will progress and then we can identify the fingerprint of inflammation from WDB beginning to appear in the NeuroQuant results. The test that shows this takes 10-minutes and costs $89.00. No government agency yet has ordered its first NeuroQuant, even though NeuroQuant itself has survived legal challenges in mold litigation in Federal Court and is FDA cleared.

In the human genome, the problems are mounting. Inflammatory gene abnormalities are beginning to appear and will continue unless something is done to stop their adverse consequences.

Especially for those told they have asthma (and they rarely do), we will find abnormalities of pulmonary artery pressure in exercise. This pressure goes up more than it is supposed to, creating problems with shortness of breath and difficulty with breathing, often blamed falsely on lung conditions when it actually is pulmonary hypertension. We have excellent treatments for this problem but it must be diagnosed using an echocardiogram.

## So, what should the Federal government be doing?

A screening test, visual contrast sensitivity (VCS), the one validated by NIOSH in 2009 in Fortier High School, is available online and in visual professional's offices. Taking the VCS test takes 5-minutes and shows a distinctive deficit (in those who have adequate near vision and adequate light in the room) that invariably means biotoxin exposure. This test is reproducibly reliable and will show deterioration within 36 hours after development of illness. Treatment brings resolution beginning in 36 hours as well. Treatment is continued until (VCS) is normal.

## What has the federal government done?

In 2008 the GAO presented a case definition for the CIRS illness. (1) There must be the potential for exposure to water-damaged buildings. We have that. (2) There must be evidence of symptoms in cases similar to those published in peer-reviewed literature. Our VCS test contains such a symptoms roster. Patients can take the test and quickly find out. (3) We must have lab abnormalities similar to those seen in published, peer-reviewed literature. Here the problems begin. If there are only three physicians left in Rockport, as there were in St. Bernard's Parish in 2006, it will be hard for those overwhelmed physicians to order the tests that we need. Here is where FEMA and Homeland Security can assist by providing trained physicians to help the thousands of patients as quickly as possible. Time is of the essence. Every hour that continues without initiation of treatment can lead to more inflammation injury - in brain, in genome and in blood. Finally, (4) there must be results of treatment. This step fails if no one is treated.

The challenge to the medical community caring for storm-catastrophe injured patients starts with documenting CIRS. It will be all around us. Published protocols work; diagnostic methods are accurate. We must insist that our agencies (i) read the literature; (ii) learn what their patients have and (iii) treat aggressively. NOW.

Ritchie C. Shoemaker MD
Andrew H. Heyman MD
Greg Weatherman, CMC
Karen Johnson MD
Lysander Jim MD
Jacquelyn Meinhardt FNP

Lauren Tessier, ND
David Lark, B. App, Sci, CIEC, CMC
Vince Neil, Mycotox
Michael Schrantz, CIEC, CMI, BPI-BA/EP
Natasha Thomas MD