

GLOBAL INDOOR HEALTH NETWORK

WORKING TOGETHER FOR HEALTHY INDOOR ENVIRONMENTS
IN OUR HOMES, SCHOOLS AND BUSINESSES



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University of Maryland Faculty Getting Sick from Mold for Years

It's the day before Jen Shaffer has to come into work at the University of Maryland's Woods Hall, and she's already anticipating the headache she'll have around 3 p.m.

Within a few minutes of walking into the building, she knows she'll start to feel her sinuses clog up. Shaffer works from home as much as she possibly can — it's hard to be productive when your head feels like it's going to explode, she said.

The anthropology professor has a pretty good idea of what is causing her symptoms: Mold. Mold that shows up on ceiling tiles, walls and bookshelves. Mold that collects on the spines of her books, and made her throw her office couch away.

Shaffer is just one of at least 15 faculty members and students in the anthropology department who have reported experiencing health problems — including rashes that pop up out of nowhere, respiratory issues and aggravated allergies and asthma — that they trace back to the mold that lingers over Woods Hall.

Mold-filled dorms and apartments drew headlines throughout last fall; concerned students and parents reported moldy furniture and belongings in at least 10. Students in Elkton Hall, for one, were sent to hotels in College Park while mold remediation efforts took place.

Faculty members say they feel dismissed and ignored by the university as they struggle to churn out publications, write grants and meet with students in a building that makes them sick.

To read the article, click [here](#).

No Safe Way to Implement 5G

"There is NO SAFE WAY to implement 5G in our communities; rather, there are only 'bad ways' and 'worse ways,'" says retired Harvard physicist. Read the article on pages 10-11 of this Newsletter.

More than 181,000 scientists, doctors, etc. from 207 nations and territories have signed [the International Appeal](#) to Stop 5G.

See *Seattle Children's Hospital mold* on page 2

Seattle Children's CEO Admits 6 Deaths, More Illnesses due to Mold in Operating Rooms

Seattle Children's chief executive disclosed Monday that 14 patients have been sickened by *Aspergillus* mold since 2001 — six of whom died — blaming his hospital for failing to recognize a connection between the infections and the air-handling units serving its operating rooms.

Dr. Jeff Sperring, Children's chief executive, said the hospital had believed earlier infections were isolated events but that recent cases prompted staff to take another look. "Looking back, we should have made the connection sooner," he said at news conference. "Simply put, we failed."

Yet more than a dozen years ago, Eugene and Clarissa Patnode drew a direct connection between the hospital's air-filtration system and their 12-year-old daughter's *Aspergillus* infection that left her permanently disabled.

"This makes me sick to my stomach," John Layman, an attorney for the Patnodes, said Monday when contacted by The Seattle Times. "Our whole case was about the problems with the HVAC and it seems to have never been addressed." The family didn't respond to a message seeking comment.

Children's denied the allegation aggressively at the time, and fought the family in court for nearly three years, court records show. A spokeswoman for the hospital did not respond to questions about the lawsuit, which was settled in 2008 for an undisclosed amount, on Monday and did not respond to other questions after the news conference.

Since May, Children's, a celebrated institution whose doctors are sought after nationally, has publicly struggled to eradicate a strain of mold from its air systems, even as more mold-related infections have been confirmed. The experience of the Patnode family shows these struggles extend back much further than the hospital has previously acknowledged.

Aspergillus infections that happen while a patient is in the hospital aren't widely reported or identified across the country and little is known about *Aspergillus* in hospital HVAC systems, according to Jeff Duchin, public health officer of Public Health — Seattle & King County.



Seattle Children's CEO Admits 6 Deaths, More Illnesses due to Mold in Operating Rooms (cont'd)

After seven infections and one death were connected to *Aspergillus* and problems with the air-handling system, Children's said it looked retroactively at previous cases, and found seven more illnesses and five deaths between 2001 and 2014.

In recent years, Children's has faced scrutiny from regulators over the steps it takes to guard against infections. In October 2017, inspectors with the state Department of Health cited the hospital for a serious violation over its failure to "implement and monitor an effective infection prevention program."

In June 2018, Children's closed two operating rooms and an equipment storage room for three days after *Aspergillus* was detected. The hospital believed the appearance of mold was due to small gaps in the walls of the operating rooms.

Hospital officials attributed another infestation, discovered in May of this year, to a gap in the array of small air filters in an air-handling unit. State inspectors visited Children's on May 30, and cited the hospital for failing to adequately maintain its air-handling units and exhaust fans, among other shortcomings.

Then, on November 10, the hospital disclosed that it had again detected *Aspergillus* in three of its operating rooms. Children's is postponing planned surgeries and diverting patients to other hospitals.

To read the article, click [here](#). Closure [will continue](#) through January 2020.

See *Employees reported mold concerns* on page 3

Former Employees Reported Mold Concerns at Seattle Children's Hospital

Documents filed in a King County lawsuit that was settled in 2008 show that Seattle Children's hospital employees have long complained about poor maintenance of the ventilation system that serves the hospital's operating rooms.

"The coils and drain pans actually have mold and fungus growing on them," Maintenance Engineer Kenneth L. Johnson wrote to a supervisor in a 2001 email.

"We need to rectify this situation ASAP before someone gets sick or Infection Control gets complaints," Johnson said.

Those emails were written a long time ago. However, they take on a renewed relevance after Seattle Children's CEO Jeff Sperring announced Monday that its internal investigation linked the deaths of six children since 2001 to Aspergillus mold that circulated through the hospital's ventilation system.

A total of 14 patients have developed an Aspergillus infection since 2001.

In 2005, the family of Shana Patnode filed suit against Seattle Children's after she contracted an Aspergillus mold infection from brain surgery.

In addition to Johnson's sworn declaration, in 2003 Maggie Brown, the former manager of Seattle Children's building and engineering department, signed a sworn statement that the ventilation system was "in poor condition" with dead birds and other debris lining the intake screens.

Brown said she was fired by Seattle Children's in 2003 after she complained that her superiors were taking money from the building maintenance budget and using Last week, Seattle Children's closed most of its operating rooms until January 2020 so it can install a new rooftop air handler and in-room HEPA filters in every operating room and adjacent supply areas.

To read the article, click [here](#).

Records from a King County court case show building engineers at Seattle Children's raised concerns with management about mold in 2001.

Mould at Yellowknife's New Hospital

Water leaks and mould have plagued Yellowknife's new Stanton Territorial Hospital since day one, and staff have repeatedly expressed concerns that vulnerable patients weren't protected from risks caused by cleaning up these problems.

"I had several concerns regarding exposure of patients to the construction dust," stated Karen Pardy, the health authority's specialist for infection, prevention and control.

She specifically flagged her concern that the work was happening in the vicinity of people on dialysis treatment, who are also some of the hospital's most significantly immunocompromised patients.

Tang Lee, an environmental sciences professor at the University of Calgary, said performing work without taking proper precautions can have lasting effects on the building.

"You've already spread [mould spores] throughout the entire hospital because the hospital HVAC system, which is a heating-vent led, air conditioning system...is interconnected," he said.

A report, published by Health Canada in July 2001, reviews 32 documented cases of construction-related, hospital-acquired infections in the country between 1978 and 1998.

Those cases affected 377 people and led to at least 153 deaths. Most were caused by the spread of various types of mould during hospital renovations, demolitions and water repairs.

To read the article, click [here](#).

Senators Want Air Force Probe into Allegations Military Housing Provider Faked Records

Senate Armed Services Committee leaders on Wednesday demanded the Air Force investigate reports that a major U.S. military housing provider falsified maintenance records for years at a Texas base in order to gain millions of dollars in performance bonuses.

Responding to a joint CBS News and Reuters report that Balfour Beatty employees routinely doctored its records at Lackland Air Force Base in San Antonio, Texas, Committee Chairman Jim Inhofe (R-Okla.) and ranking member Jack Reed (D-R.I.) “urge the Air Force and appropriate federal law enforcement agencies to investigate this fully so we can truly understand what is going on and how pervasive this problem is,” according to a statement from the two lawmakers.

“If the Air Force substantiates allegations that Balfour Beatty perpetrated widespread, illegal fraud, the Air Force must take every action appropriate to hold Balfour Beatty accountable and recoup every last dollar stolen from the taxpayers,” the statement adds.

Reuters earlier this year revealed allegations that Balfour Beatty for years also faked records at Tinker Air Force Base, Okla., to make it appear more responsive than it was to complaints.

Balfour Beatty has also been hit with accusations of falsifying maintenance reports at Malmstrom Air Force Base, Mont.

The latest report found that the company used a similar method at Lackland. Balfour’s Lackland manager from 2013 to 2016 told the news outlet that her bosses pressured her to forge records to make it seem like the company finished maintenance work on time, though the work was often late or never completed.

Internal company emails and maintenance reports confirm the allegations, as it showed that the company only completed 69 percent of repairs on time in 2015. The rate was changed to more than 95 percent after a Balfour Beatty manager demanded higher scores, which allowed the company to earn a bonus.



Senators Want Air Force Probe into Allegations Military Housing Provider Faked Records (cont’d)

“This is not the first time allegations have been raised that Balfour Beatty has used fraudulent work order practices at Air Force bases,” Inhofe and Reed write. “This isn’t even the second time. It is the third time—and it is completely unacceptable and disturbing. How much more should we ask military families to endure?”

Following the damning report from the Oklahoma investigation, Balfour Beatty said it has started an investigation into the fraud allegations and also sought an independent audit of the Air Force’s bonus fees.

The Federal Bureau of Investigation and the Air Force Office of Special Investigations are also investigating possible fraud at Tinker as well as at Travis Air Force Base, Calif., and Fairchild Air Force Base, Wash., where the company also is a landlord.

The Army is also investigating “allegations” against Balfour Beatty, Lt. Col. Crystal Boring told Reuters.

Earlier this month 10 military families who all lived in military housing on-base at Fort Meade, Md., [sued Corvias Property Management](#) over what they claim was a lack of action to hazardous housing conditions and exposure to toxic mold at one of the nation’s largest Army bases.

To read the article, click [here](#).

See *Military families getting sick* on page 5

Military Families are Getting Sick from Mold in Their Homes -- Now They're Suing

Melissa Godoy had spent much of her life in military housing, living in bases around the country for a decade without issue. Then she and her husband, an Army combat engineer, came to Joint Base Lewis-McChord (JBLM) in July 2018. She recalled that the home her family moved into on base was slightly “stuffy.” It was an older home and she noted that the ventilation wasn’t great, but she thought little of it. Part of military life is making do with what you get.

By September 2018 she was beginning to experience breathing problems. “I’m not a sickly person so it was kind of different, I thought maybe it was due to a new environment,” she told Crosscut. She called Lincoln Military Housing (LMH), the private contractor that manages housing at Joint Base Lewis-McChord and several other bases around the country. “They said, ‘It’s allergies, Melissa, you’re fine; it’s not the house.’ So, I decided, they say it’s not the house, so it’s not the house. I left it alone.”

By November 2018 she was diagnosed with lung infections — she had pneumonia with acute bronchitis. “That was very different because I’m also an athlete. I was an amateur female boxer so I trained vigorously,” she said. “[I] didn’t have time for lung infections, never really got them.” Her children also began having lung and breathing problems. Her 4-year-old was diagnosed with bronchitis twice. The same month she found water pooling underneath their sink. She called LMH again.

“They were looking for that leak but then they accidentally found water pooling in the wall behind the fridge, so that was an accident. They didn’t mean to find that, and they weren’t even looking for it. ... The insulation was drenched,” she said. Godoy said she asked the repairmen how long they thought the water might have been there, but they had no idea.

When the workers returned to replace the insulation, Godoy asked if they looked for mold. She said they told her not to worry about it. They conducted a moisture test and determined there was no issue.



Military Families are Getting Sick from Mold in Their Homes -- Now They're Suing (cont'd)

“I told them I can show you where there’s moisture, I need you to check for mold,” recalled Godoy. “They did not.”

Months later Godoy lost patience and tore open the walls herself and found black mold in her bathroom. She took to social media and quickly discovered that other JBLM families were having similar experiences. In fact, dozens of JBLM families have been living in hotels as the Army wrestles with mold and water damage in homes across the base.

JBLM isn’t the only base experiencing these kinds of problems. Mold, high levels of lead and other problems have recently surfaced in bases around the country, leading to congressional hearings and calls for reform.

An Army investigator general report that looked at JBLM and other facilities between February and March of this year found that housing inspectors often didn’t look into “life, health or safety” items, such as mold or electrical issues, when residents asked them to.

The IG report, released in September, also found that residents worried about facing reprisals if they raised concerns or complained. Many who did, it noted, reported “additional move-out fees, fines due to yard maintenance and other discrepancies, and threats to call or involve the chain of command.”

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See *Military families are getting sick* on page 6

Military Families are Getting Sick from Mold in Their Homes -- Now They're Suing (cont'd)

Continued from page 5...

It has been more than 20 years since Congress approved the Military Housing Privatization Initiative, a move that was supposed to reduce burdens on military planners by opening the door for private companies like LMH to take over residential management at bases across the country.

Advocate and military spouse Leigh Tuttle points at that decision as a possible turning point. "My worry is that through the contracting process, the Army essentially sold their soul to the devil for 50 years," she said.

Tuttle recently relocated to the Tacoma area when her husband transferred to JBLM, but she moved her family into off-base civilian housing after she had similar problems with mold and health problems while living at a previous military installation. She has testified before Congress and regularly takes to social media to speak out on housing and other issues impacting military families. She said it's not just about the health of individuals at stake, but potentially severe impacts on military readiness.

"JBLM is a hub for special operations, and we are still a nation at war. Soldiers who are deployed to theater should never have to worry about their loved ones living in a hotel room for weeks on end due to the negligence of privatized housing," said Tuttle. "The Army needs to take a strong and meaningful stance against these companies that are harming our soldiers and families, and to prove they do care and to rebuild a sense of community."

During a visit by leaders from her husband's unit, housing maintenance personnel were present, and Godoy asked them to look for mold. A maintenance specialist checked the crawl space, came back and reported that there was an improperly installed shower drain. It was fixed the same day. Godoy asked him if he saw mold, and he told her he hadn't looked and to call housing if she had other concerns.



Military Families are Getting Sick from Mold in Their Homes -- Now They're Suing (cont'd)

She did. Godoy went directly to the housing manager and complained that the staff had dismissed and ignored concerns about mold, despite repeated documented instances of water buildup from bad plumbing. She said the manager insisted again that there was no mold and told Godoy to talk to a doctor instead of housing personnel about her symptoms.

By summer she and her children were still sick. "My doctor was really concerned about my toddler," she said. Doctors asked her if she had mold in her house, telling her that could potentially explain the symptoms. "I told them I don't know. Housing says there's not," Godoy told Crosscut.

Godoy said she was rapidly losing weight, up to 5 pounds a month. She found herself in the emergency room and urgent care several times. She got tested for cancer and the test came back negative.

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See *Military families are getting sick* on page 7

Military Families are Getting Sick from Mold in Their Homes -- Now They're Suing (cont'd)

In July she asked maintenance to come to her house again. They told her they found nothing. "I just decided to look for myself," Godoy said. She grabbed a flathead screwdriver and hammer and began to peel off wood paneling in the bathroom near the shower. She quickly found grayish shading in the wall. She said that when she turned over the wood panel in her hand "there was black fuzzy spotty stuff all on the inside of it. ... I found it, I found out why me and my family are so ... sick."

She continued pulling off panels, finding more mold. "Same thing, black stuff, all inside of it," she said. She then noticed a piece of tile at the base of the shower that was abnormally white. "They had painted over it," she said. "It looked like mildew was coming through the paint." She decided to pry that loose too, and said she found black, wet fuzz inside. "It was covered in toxic mold," she said.

She called LMH and recorded the walkthrough on her phone. She demanded to know how they could miss the mold for months even as she specifically asked them about it. "They put us in a hotel within the hour," she said. She posted video and people began reaching out.

Godoy started a Facebook group called Lincoln Military Housing Toxic Homes – JBLM. It soon grew to over 1,000 members. She began to receive messages from other families reaching out to her with reports of breathing problems, rashes and other issues. Some asked her to look through their houses as she had her own.

She started doing walkthroughs with families and pulling up boards. She said that within just the first week she found mold in 26 houses.

"[We] found really high levels of toxic mold in their houses," she said.

They began posting videos and sharing resources on how to find mold. Other families began tearing out panels and tiles to look for mold. They also reached out to local TV stations.

She continued pulling off panels, finding more mold. "Same thing, black stuff, all inside of it," she said. She then noticed a piece of tile at the base of the shower that was abnormally white. "They had painted over it," she said. "It looked like mildew was coming through the paint." She decided to pry that loose too, and said she found black, wet fuzz inside. "It was covered in toxic mold," she said.

Military Families are Getting Sick from Mold in Their Homes -- Now They're Suing (cont'd)

Godoy is now taking LMH to court, represented by attorney Sonny Nguyen of Federal Way-based Park Chenaur & Associates. Several JBLM families are joining her, including Vanessa Strother's. Strother said that during the three years she lived in a home at JBLM she and her children experienced severe respiratory and gastrointestinal symptoms that regularly took them to the hospital. She came to Washington after her husband, an artilleryman, transferred to JBLM from Texas. Strother has asthma, but was an avid runner in Texas and rarely had serious symptoms. Like Godoy she initially attributed it to a change in climate.

As she settled into the house, she began rapidly gaining weight, despite maintaining that she kept up a similar diet and exercise schedule. She began getting serious migraines. She also started suffering from increasing heartburn and had difficulty swallowing food.

Her children also experienced problems. Her son had skin rashes, seriously swollen tonsils and was seemingly unable to gain weight. "His throat was swollen so bad it was changing his voice," said Strothers.

As time goes on military families are becoming more vocal. "A lot of people were scared to do what we're doing now because of retaliation," said Godoy. "That was something I wanted to demolish. And I did."

To read the article, click [here](#).

Bangladesh High Court Orders Removal of Cell Towers

The High Court Division in a full verdict in the case of mobile tower radiation effect has issued 12-point directives including imposition of a ban on installation of mobile or telecommunication towers on the rooftops of residential area, educational institutions, hospitals, jail premises, heritage sites, playgrounds and places of worship.

The court in the full verdict released on Tuesday, also directed the Bangladesh Telecommunication Regulatory Commission to remove all existing mobile or telecommunication towers from the potentially high-risk areas with substantial population density.

On April 26, a bench of Justice Syed Refaat Ahmed and Justice Md Iqbal Kabir in a short verdict declared as 'illegal' installation of mobile or telecommunication towers on the rooftops of residential areas, offices by six mobile operators.

The court had delivered the verdict after hearing a public interest writ petition of Human Rights and Peace for Bangladesh.

The full verdict also directed Bangladesh Telecommunication Regulatory Commission to limit emission of radiation at the level as prescribed by International Commission on Non-ionising Radiation Protection.

The court also directed Bangladesh Telecommunication Regulatory Commission to explain to it any impediments and constraints on the availability, acquisition and installation of instruments to ensure that the magnetic fields remained at certain acceptable frequencies.

Earlier, the health ministry's committee of experts found that radiation emitting from a mobile phone company's tower was excessive and as such was posing threats to the public health as well as the environment.

To read the article, click [here](#).

Additional information about the dangers of cell towers is posted on [our website](#).

Bangladesh High Court imposes a ban on installation of mobile or telecommunication towers on the rooftops of residential area, educational institutions, hospitals, jail premises, heritage sites, playgrounds and places of worship.

Black Mold is Growing in U.S. Prisons

Hundreds of correctional officers across the U.S. are working in prisons with mold growing in areas constantly populated by both officers and inmates.

Prison leaders have allowed the mold to fester for years in some cases, refusing to test it. That's due to Bureau of Prisons policy, not bureaucratic incompetence.

Top union officials for correctional officers said prison leaders have balked at exterminating mold making promises they never keep and refusing to hire contractors who can adequately eliminate it.

Some of those issues are an explicit policy of the Bureau of Prisons, laid out in a memo issued in the summer of 2015.

Union leaders report multiple health issues of current and former prison employees who have to breathe in the mold without protective gear every day. They said prison leaders have been reluctant to admit there are mold problems or do the type of intensive and costly work that not only gets rid of the mold but also means it stays gone.

Leadership at different prisons in the U.S. with mold problems are more focused on minimizing short-term cost and potential liability than fixing the problem and helping staff, multiple union leaders said.

"There's been no accountability, and now they're lying to Congress," McGlothlin said. "To say it's been frustrating would be a huge understatement."

To read the article, click [here](#).

Smoking Harms the Entire Family

Before Dad was a physician, he was a smoker. And, because we lived in his house, we were smokers too.

Throughout my life, people have thought it odd that a doctor could also smoke, but it's not really so strange because Dad started his habit at 14. Smoking was one of the things people did back then, all the time—at home, at work, at parties. Millions of soldiers received free cigarettes during World War II, and when they returned home from the war, they were hailed as heroes, role models for kids everywhere. And our heroes smoked.

My father was already a veteran smoker before he ever set foot in med school, and any doctor will tell you that med school is incredibly stressful—it's not the best environment for quitting anything, except maybe sleep. Plus, he enjoyed it. These were the days before the Surgeon General's package warnings, the terrifying ads, and the lawsuits. By 1966, when the warnings started appearing on cigarette packaging, he'd already spent half of his time on Earth as a smoker.

As kids, my sister and I waged a failing war against the cigarettes: We begged and pleaded, we pinched our noses and complained about the horrible smell. We hid the packs and the ashtrays. I'll bet many of you did the same things to your parents. One time I even "loaded" a cigarette, which resulted in a small explosion that angered Dad, not because he was surprised by it but because the cinders nearly burned his shirt. But every time we tried, he proved that his love of smoking was somehow stronger than we were.

So, we grew up with smoke in the house every morning before, during, and after breakfast. Some people wake up to the aroma of eggs or bacon, but we woke to the acrid odor of cigarettes. The other thing I woke up to almost without fail was a lump in the back of my throat—an actual lump of gunk that accumulated there while I slept. Part of my morning routine was to get up and expel a gob of phlegm into the sink. It didn't end there, either—several times a day I repeated this ritual, right up until bedtime. Every day, for years.

My mother thought it was disgusting, and she told me so. I agreed, but what was I supposed to do about it? "I gotta get it out somehow," I muttered grimly as I continued to hack away.



Smoking Harms the Entire Family

It wasn't long after that I started hearing about the dangers of secondhand smoke. Secondhand smoke is the smoke that the other people in the presence of a smoker breathe, the smoke that my father expelled from his lungs after every drag from his cigarettes or puff from his pipe as well as the smoke that rises from these tobacco products as they burn. Secondhand smoke is a known trigger for people with asthma and can lead to lung cancer, too.

You may not have heard of it, but there's also a thing called "third-hand smoke," which is the chemical residue left behind on surfaces that we take into our bodies by touching contaminated surfaces, ingest from hand-to-mouth contact (or possibly via our food), or breathe in as dust after the actual smoking stops. These would be the chemicals trapped in curtains, on wallpaper or painted surfaces, or the foul odor you detect in a smoker's car. Whatever you smell in the car is the particulate residue of various chemicals including carbon monoxide, arsenic, butane, lead, toluene, and hydrogen cyanide. That's what you're taking into your lungs when you're breathing second- and third-hand smoke. And before you say anything about air fresheners, forget it: They're masking the chemical smell, not removing it; you're still breathing smoke residue and to it you've added other chemicals blended to smell like pine or vanilla.

My dad finally quit smoking at age 60 but he'd done too much damage to his body. He got to meet his first grandchild before he passed.

To read the article, click [here](#).

Harvard Physicist: 'No Safe Way to Implement 5G'

According to the telecom industry, 5G, the “5th Generation” wireless network, is required to give people the wireless freedom they crave and need. Described by HP as “blazingly fast,” 5G, which is 70 times faster than its predecessor, 4G, “will replace cable internet for good,” allowing you to download a two-hour high-definition movie in three seconds flat.

5G is also being touted as necessary to enable the development and proliferation of self-driving cars and other future technologies. However, as noted in a May 2019 Forbes article, robocar designers are not, in fact, relying on 5G for their development, and the cars themselves do not actually need that kind of bandwidth to perform the required functions.

While “blazingly fast” 5G might sound attractive to many who have grown up in the internet era, there are significant health and environmental concerns relating to 5G radiation that are not being properly addressed, which may have profound implications both in the short and long term.

If increased internet speed and reliability are the end goal, then fiber optic connections would be a far better (and safer) way forward. Indeed, we need more wired connections and fewer wireless ones as it is. With 5G, microwave radiation exposures will so massively increase, there's no doubt in my mind that mankind will eventually end up regretting its shortsightedness.

Remember that no one has problems with the faster speeds of 5G, no one. What any serious student of health has concerns with is that the data are being distributed wirelessly, when in most cases the data could be distributed easier and less expensively over fiber optic cables.

No Safety Studies Have Been Done

Unlike the 4G technology currently in use, which relies on 90-foot cell towers with about a dozen antenna ports on each, the 5G system uses “small cell” facilities or bases, each with about 100 antenna ports.



Harvard Physicist: 'No Safe Way to Implement 5G' (cont'd)

These cell bases will be mounted to already existing infrastructure such as utility poles. Ultimately, many if not most homeowners can expect to end up with a 5G cell base mounted right outside or very near their home.

As noted by a Federal Communications Commission representative during a February 6, 2019, senate commerce hearing (above), no 5G safety studies have been conducted or funded by the agency or the telecom industry, and none is planned.

In short, there's no telling exactly what might happen to our ecology and the people being exposed to this novel wireless technology 24/7, once it's deployed. As noted by Dr. Cindy Russell, executive director of Physicians for Safe Technology, in her August 2018 paper in the journal Environmental Research:

“Like other common toxic exposures, the effects of radiofrequency electromagnetic radiation (RF EMR) will be problematic if not impossible to sort out epidemiologically as there no longer remains an unexposed control group.

This is especially important considering these effects are likely magnified by synergistic toxic exposures and other common health risk behaviors. Effects can also be non-linear.

Because this is the first generation to have cradle-to-grave life span exposure to this level of man-made microwave (RF EMR) radiofrequencies, it will be years or decades before the true health consequences are known. Precaution in the roll out of this new technology is strongly indicated.”

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See *No safe way to implement 5G* on page 11

Harvard Physicist: 'No Safe Way to Implement 5G'

Continued from page 10...

There's No Safe Way to Implement 5G

Similarly, in an article on the Environmental Health Trust's website, Ronald Powell, Ph.D., a retired Harvard scientist of applied physics, notes "there is NO SAFE WAY to implement 5G in our communities; rather, there are only 'bad ways' and 'worse ways,'" and rather than argue about who should have control over its deployment, we should focus on preventing its employment altogether.

Indeed, mounting research suggest the proliferation of 5G for the sake of faster wireless internet could be a public health disaster, so if 5G does end up "replacing cable internet for good," humanity may be in for a devastating shock in coming decades, if not sooner.

While it may take years to fully ascertain the full effects of 5G, there are early warning signs. People have reported mass die-offs of bees around 5G towers in California, for example, and residents in Gateshead in the U.K. started reported insomnia, chronic nosebleeds and stillbirths after the installation of streetlamps that emit 5G radiation in 2016.

'No Reason to Believe 5G Is Safe,' Scientific American Says

In an October 17, 2019, article Scientific American warns "We have no reason to believe 5G is safe," and that "contrary to what some people say, there could be health risks." The article, written by Joel M. Moskowitz, Ph.D., director for the Center for Family and Community Health in the School of Public Health at the University of California, Berkeley, notes:

"The telecommunications industry and their experts have accused many scientists who have researched the effects of cell phone radiation of 'fear mongering' over the advent of wireless technology's 5G.

Since much of our research is publicly-funded, we believe it is our ethical responsibility to inform the public about what the peer-reviewed scientific literature tells us about the health risks from wireless radiation."

"There is NO SAFE WAY to implement 5G in our communities; rather, there are only 'bad ways' and 'worse ways,'" says retired Harvard physicist.



Current RFR limits are based on studies from the 1980s looking at the behavioral effects of microwave radiation on rats, "and were designed to protect us (only) from short-term heating risks due to RFR exposure," Moskowitz writes.

Harvard Physicist: 'No Safe Way to Implement 5G' (cont'd)

Current RFR limits are based on studies from the 1980s looking at the behavioral effects of microwave radiation on rats, "and were designed to protect us from short-term heating risks due to RFR exposure," Moskowitz writes.

These limits are already outdated for our current levels of exposure, so they're surely bound to be completely inadequate for 5G. Since the 1980s, more than 500 studies have identified harmful health or biological effects at RFR intensities far below those needed to produce heating, yet the FCC is ignoring these clearly established facts. As noted by Moskowitz:

"The FCC's RFR exposure limits regulate the intensity of exposure, taking into account the frequency of the carrier waves, but ignore the signaling properties of the RFR. Along with the patterning and duration of exposures, certain characteristics of the signal (e.g., pulsing, polarization) increase the biologic and health impacts of the exposure.

New exposure limits are needed which account for these differential effects. Moreover, these limits should be based on a biological effect, not a change in a laboratory rat's behavior."

To read the article, click [here](#). Also read [this article](#) titled: Appeals Court Rules 5G Cell Sites Can't Skip Environmental and Historical Review.

See *Monsanto to plead guilty* on page 12

Monsanto to Plead Guilty to Illegally Spraying Banned Pesticide on Maui

Monsanto Company has agreed to plead guilty to illegally using a banned pesticide known as PennCap-M on research crops at one of its facilities on Maui, according to the Department of Justice.

Justice officials say Monsanto agreed to plead guilty to a misdemeanor offense of “unlawfully spraying a banned pesticide – specifically methyl parathion, the active ingredient in PennCap-M” –which the company used on corn seed and research crops at its Valley Farm facility in Kihei in 2014. The information was contained in court documents filed today in US District Court in Honolulu.

According to the Department of Justice, Monsanto admitted in the court documents that it used PennCap-M, even though the company knew its use was prohibited after 2013 pursuant to a “cancellation order” issued by the Environmental Protection Agency.

The company further reportedly admitted that, after the 2014 spraying, it told employees to re-enter the sprayed fields seven days later – even though Monsanto knew that workers should have been prohibited from entering the area for 31 days.

The documents filed today also include a deferred prosecution agreement related to two felony counts of unlawfully storing an acute hazardous waste.

Pursuant to the agreement, Monsanto will pay \$10 million – a \$6 million criminal fine and \$4 million in community service payments to Hawaiian government entities. The government agreed to dismiss the felony charges in two years if Monsanto abides by the agreement, which includes paying a total of \$10.2 million, successfully completing a two-year period of compliance with the agreement’s terms, and maintaining a comprehensive environmental compliance program at all of its facilities in Hawai’i to ensure compliance with all federal environmental laws.

In addition to spraying the banned pesticide at one of its three facilities on Maui, Monsanto also stored a total of 111 gallons of PennCap-M at Valley Farm and sites known as Maalaea and Piilani.

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Monsanto to Plead Guilty to Illegally Spraying Banned Pesticide on Maui (cont’d)

“The illegal conduct in this case posed a threat to the environment, surrounding communities and Monsanto workers,” said United States Attorney Nick Hanna. “Federal laws and regulations impose a clear duty on every user of regulated and dangerous chemicals to ensure the products are safely stored, transported and used.”

In a statement of facts filed in court today, Justice officials say Monsanto admitted that it knowingly used, transported and stored PennCap-M in violation of federal law. The pesticide “had to be managed as an acute hazardous waste in compliance with the Resource Conservation and Recovery Act (RCRA),” which prohibited the storage or transportation of the pesticide without a permit after 2013.

From March 2013 through August 2014, even though the pesticide was on the company’s lists of chemicals that needed disposal, Monsanto stored 160 pounds of PennCap-M hazardous waste at its Moloka’i facility, which under RCRA made Monsanto a “Large Quantity Generator” of hazardous waste.

This case is the result of an investigation by the US Environmental Protection Agency, Criminal Investigation Division.

This matter is being prosecuted by Mark A. Williams and Dennis Mitchell, who are special attorneys appointed by the Attorney General pursuant to 28 USC § 515.

To read the article, click [here](#).

Brazilians Poisoned by Pesticides Sprayed Near Homes and Schools

Exposure to pesticides can have severe impacts on the enjoyment of human rights, including the rights to health, to adequate food, to safe drinking water, and to a healthy environment.

Over the last 2 years Human Rights Watch has researched on the human rights impacts of pesticide use in Brazil. The country is one of the largest users of pesticides in the world and many of the pesticides used in Brazil are highly hazardous. In 2018, Human Rights Watch published the report “You Don’t Want to Breathe Poison Anymore” on the human rights impacts of pesticide drift on ordinary people in farming communities, indigenous communities, quilombola (Afro-Brazilian) communities, and rural schools across Brazil.

Rural residents are being poisoned in Brazil from pesticides sprayed near their homes, schools and workplaces; farmers often ignore a national “buffer zone” regulation that prohibits aerial spraying of pesticides near housing; people living in exposed communities fear reprisals from large landowners; and a bill is under discussion in Congress that would weaken the regulatory framework for pesticides.

The report documented cases of acute poisoning from pesticide drift in seven sites, located across Brazil, including farming communities, indigenous communities, quilombola (Afro-Brazilian) communities, and rural schools. The sites are in the immediate proximity of large plantations.

Exposure occurs when pesticide spray drifts off target during application, or when pesticides vaporize and drift to adjacent areas in the days after spraying.

People living in exposed sites reported having symptoms consistent with acute pesticide poisoning, such as vomiting, nausea, headache and dizziness, as well as sweating, elevated heart rate, during or immediately after nearby pesticide application.

Existing regulation by MAPA (Brazil’s ministry of agriculture) prohibits aerial spraying of pesticides within 500 meters of villages, cities, communities, neighborhoods, and water sources.



Brazilians Poisoned by Pesticides Sprayed Near Homes and Schools (cont’d)

However, this regulation is not consistently enforced. Human Rights Watch documented four cases in the seven sites where the aerial buffer zone was not respected.

Since Human Rights Watch published the report, cases of acute pesticide poisoning and violations of buffer zone provisions continue being documented across Brazil, while authorities have done little to protect Brazil’s population from highly hazardous pesticides.

The national buffer zone for aerial spraying remains ignored. Last November, in a rural school in Paraná state, almost 100 people, including 52 children, were affected by a drift of paraquat, a highly hazardous pesticide, sprayed from a tractor in the adjacent farm, in violation of a state regulation that establishes a minimum distance of 500 meters between the pulverized area and “populated areas, schools, housing and recreation places.”

Brazil should adopt measures to protect its population from highly hazardous pesticides. Brazilian authorities should undertake a thorough and time-bound review of the health and environmental impacts of current pesticide policies. While doing so, Brazil should impose a moratorium on aerial spraying and establish and enforce a nationwide regulation for a buffer zone around sensitive sites, including habitation and schools, for all forms of ground spraying. And Congress should reject any law reform efforts that weaken the regulatory framework for pesticides, including the bill currently before it.

To read the article, click [here](#).

Houseplants DO NOT Clean the Indoor Air

Bringing plants indoors can provide a number of benefits, but cleaner air isn't one of them, say experts.

IT'S A MYTH you almost wish hadn't been busted. Houseplants, though charming, do little to purify the air in a room, say the scientists who study the air we breathe.

From a quick internet search, you wouldn't guess that was the case. Popular home décor websites list a number of plants that promise to remove toxins and dangerous chemicals from the air, and several online retailers market air-purifying plants to consumers.

"We decided to study it more in depth in response to all the internet articles and wellness blog posts that tout plants as an indoor air quality magic bullet," says Michael Waring, an environmental engineer and indoor air quality expert at Drexel University.

In a study recently published in the *Journal of Exposure Science and Environmental Epidemiology*, Waring and his study coauthor reviewed 12 previously published scientific studies that tested 196 plants over the past decade.

The studies, which concluded that a small houseplant could remove a range of toxins, were conducted in labs. Waring says a typical experiment involved placing a plant in a small chamber and subjecting it to gaseous molecules called volatile organic compounds (VOCs). Experiments ranged in density and time of removal. One showed that in just 24 hours, common household ivies could remove two-thirds of the formaldehyde they were exposed to.

The problem with those experiments, says Waring, is that the densely gaseous chambers in the lab didn't mimic the typical household or office environment.

Many of the blogs and vendors marketing air-purifying plants point to a 1989 NASA study in which plants in chambers just over two feet wide and long were filled with various gases circulated by a small fan.



Houseplants DO NOT Clean the Indoor Air (cont'd)

It's that 30-year-old study, which showed plants could cut down VOCs in small airtight containers, that led consumers to think perhaps too highly of their houseplants, experts say.

"We're not saying any of the experimental data is flawed," says Waring, just that it's exactly that—experimental.

"Plants, though they do remove VOCs, remove them at such a slow rate that they can't compete with the air exchange mechanisms already happening in buildings," says Waring.

To reduce VOCs enough to impact air quality would require around 10 plants per square foot. In a small 500-square foot apartment, that's 5,000 plants, a veritable forest.

Plants are technically removing a minute amount of airborne toxins, but, "to have it compete with air exchange, you would need an infeasible amount of plants," he says.

To read this article, click [here](#).

Read this [recent article](#) titled "Opening a Window Will Improve Indoor Air Quicker than Chic House Plants."

Note from GIHN: Another important concern with houseplants is that mold grows in the soil.

Notre-Dame's Toxic Fallout

The April fire that engulfed Notre-Dame contaminated the cathedral site with clouds of toxic dust and exposed nearby schools, day care centers, public parks and other parts of Paris to alarming levels of lead.

The lead came from the cathedral's incinerated roof and spire, and it created a public health threat that stirred increasing anxiety in Paris throughout the summer.

The April 15 blaze nearly destroyed the 850-year-old cathedral and brought immediate scrutiny onto whether adequate fire protections had been in place to safeguard a gem of Gothic architecture visited by some 13 million people a year.

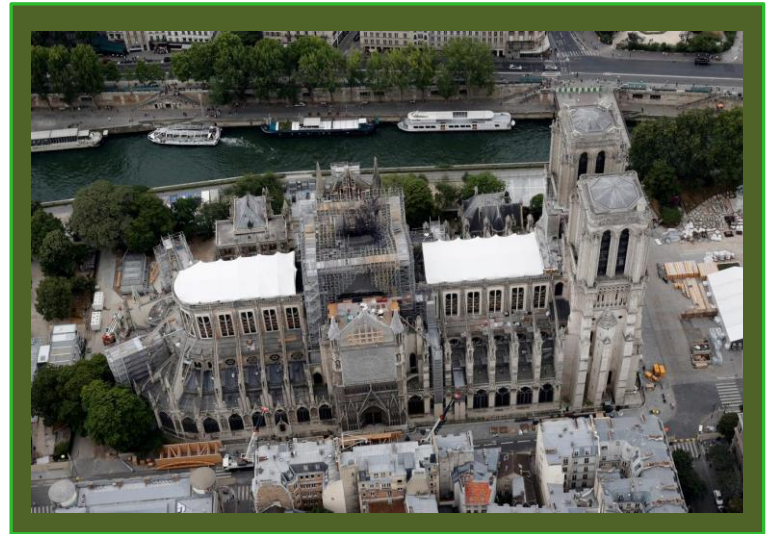
Millions around the world watched as the cathedral's roof and spire succumbed to the flames that night and collapsed. But the billowing smoke carried its own hidden danger: massive quantities of lead, according to test results in confidential reports and others released by the government.

The Times's investigation drew on confidential documents, including warnings by labor inspectors, a police report and previously undisclosed lead measurements by the Culture Ministry. Two French news organizations, Mediapart and Le Canard Enchaîné, have also investigated the lead concerns.

The documents, as well as scores of interviews, make clear that the French authorities had indications that lead exposure could be a grave problem within 48 hours of the fire.

But it took a month before city officials conducted the first lead tests at a school close to Notre-Dame. Even today, city and regional health officials have not tested every school in the proximity of the cathedral.

The tests showed levels of lead dust above the French regulatory standard for buildings hosting children in at least 18 day care centers, preschools and primary schools.



Notre-Dame's Toxic Fallout (cont'd)

In dozens of other public spaces, like plazas and streets, authorities found lead levels up to 60 times over the safety standard. Soil contamination in public parks may be among the biggest concerns.

The highest contamination levels, revealed in the confidential Culture Ministry documents obtained by The Times, were at different spots in, or near, the cathedral site. The authorities failed to clean the entire area in the immediate aftermath of the fire and waited four months to finish a full decontamination of the neighborhood.

The Culture Ministry, which is responsible for cleaning the site and rebuilding Notre-Dame, also failed or refused to enforce safety procedures for workers, leaving them exposed to lead levels more than a thousand times the accepted standard.

"These are astronomical levels, and the attitude of health authorities is inexplicable," said Annie Thébaud-Mony, a prominent public health expert in France, who has been leading public calls for more transparency in the aftermath of the fire.

The lead levels were concerning enough that some health experts consulted by The Times advised against taking small children near Notre-Dame, though all agreed it was safe to visit Paris.

...continued on page 16

Notre-Dame's Toxic Fallout (cont'd)

Continued from page 15...

"It's almost a no-brainer that if you incinerate hundreds of tons of lead, you're going to have some significant deposition of particles in the neighborhood," said Matthew J. Chachère, the longtime counsel to the New York City Coalition to End Lead Poisoning.

"I would think there would have been sufficient knowledge among public health authorities to realize that this had the potential to cause a great deal of environmental harm," Mr. Chachère said.

The health authorities' refusal to require testing of children will make it nearly impossible to assess the full extent of exposure, since lead levels reduce over time, as the element is eliminated from the body.

"They didn't encourage people to get a lead concentration, they didn't close the schools, the Health Regional Agency didn't send any alert," Ms. Thébaud-Mony said.

The people exposed to the highest levels of lead have been the workers at the cathedral itself. Amid growing public concern over contamination, the authorities shut down work at Notre-Dame in July, saying stricter measures were needed "in accordance to labor inspection's requests."

In fact, work at the site was stopped only after seven alarming letters, dozens of emails and a series of heated meetings between labor inspectors and those trying to carry out reconstruction of Notre-Dame on President Macron's ambitious five-year timetable.

Windows in the building had been left open during the fire, according to the confidential police report. Other tests found at least six offices were contaminated with lead levels up to 17 times higher than the regulatory threshold.

Experts said the officers could have been vulnerable both to inhaling the dust as it swirled during the fire and ingesting it afterward.

Tests taken inside the cathedral found lead levels up to 588 times above the regulatory threshold.

On the roof, where some workers operated without masks or gloves for months, some measurements were 2,300 times above the safety threshold.

On the plaza, open to workers and security agents, levels were up to 1,300 times higher, according to the Culture Ministry's confidential measurements.

Outside the construction site on the nearby pavements, workers were exposed to lead levels up to 955 times the threshold.

Notre-Dame's Toxic Fallout (cont'd)

On the plaza, open to workers and security agents, levels were up to 1,300 times higher, according to the Culture Ministry's confidential measurements obtained by The Times. Outside the construction site on the nearby pavements, workers were exposed to lead levels up to 955 times the threshold.

On the roof, where some workers operated without masks or gloves for months, some measurements were 2,300 times above the safety threshold.

Adding to the dangers, inspectors noticed that workers operating inside the cathedral were not decontaminating their clothes under their jumpsuits as they left work. Workers would then bring those clothes back home, exposing their families to possible lead contamination.

Their children should be screened, said Dr. Squinazi, the Paris expert. "That's a big criterion," he said. "Children of workers are running a greater risk."

Work on the cathedral resumed on August 19 with a host of new safety measures, including foot baths, decontamination showers and disposable underwear. A contracting company decontaminates work clothes.

Strict checks have been put in place on entering and leaving the site. Yet even after construction resumed, workers could still be seen wearing no gloves or masks on the northern side of the cathedral.

To read the article, click [here](#).

See *5 Common Myths about H2S* on page 16

5 Common Myths About Hydrogen Sulfide (H₂S) Safety

Are your workers and business protected against the potential dangers of hydrogen sulfide (H₂S) exposure? It may surprise you that subjection to the toxic “sour” gas remains one of the leading causes of workplace gas inhalation deaths, and OSHA recently cited a Texas employer after H₂S exposure in a confined space resulted in a fatality. There are several ongoing misperceptions about the hazards the gas presents and how best to protect against them.

Here, we shed light on the perils of H₂S in the oil and gas industry and debunk common myths about updated H₂S training standards designed to better protect workers and guard employers and contractors against hefty fines.

Better understanding standards and leveraging training best practices can help to create more effective H₂S training programs that comply with current guidelines and save lives.

Understanding H₂S in the Petroleum Industry

Protection against overexposure to H₂S, a highly toxic and explosive gas, starts with understanding the chemical and the inherent risks it carries, specifically to the petroleum industry (although it is not the only industry susceptible to the danger).

The colorless gas—known as a sour gas—is naturally produced by the decomposition of organic materials, including oil and gas deposits. It is also emitted as a by-product of many industrial processes, including the desulfurization process involved in petroleum production and refining.

The primary method of exposure to H₂S is through inhalation, whereby the gas is rapidly absorbed by the lungs. People can only smell its “rotten egg” odor when lower concentrations of the gas exist.

However, after continuous low-level exposure, or with higher concentrations, a person loses the ability to smell the gas. This can happen very quickly, and at high concentrations, the ability to smell the gas can be lost instantaneously, making it fatal in as little as one breath.

The most dangerous aspect of hydrogen sulfide results from olfactory accommodation or olfactory paralysis. This means that the individual can accommodate to the odor and is not able to detect the presence of the chemical after a short period of time. Death can occur.

5 Common Myths About Hydrogen Sulfide (H₂S) Safety (cont'd)

H₂S is a major hazard to workers in the oil and gas industry. During drilling operations, H₂S may be released at the shale shaker area and the circulation fluid treatment areas, during tripping procedures, at the wellhead, in the cellar, and onto the drilling floor. Those who work in confined spaces where the chemical can build up to dangerous levels or in low-lying areas like trenches, where pockets of H₂S can form and have little avenue for escape, are especially vulnerable.

Several federal government agencies, including the Occupational Safety and Health Administration (OSHA), regulate and enforce H₂S exposure limits to protect companies and workers. The American National Standards Institute (ANSI) provides specific practices and standards to mitigate hazards of H₂S.

The oil and gas industry leverages protocol and equipment to identify and control H₂S presence and relies on effective training programs to educate workers to recognize the dangers and instruct them on proper procedures, precautions, and the use of PPE, such as respiratory protection, eye protection, and possibly fire-resistant clothing, to guard against incidents.

Lack of or insufficient training can lead to accidents or fatalities, resulting in citations and costly fines to operators and contractors that fail to ensure proper safety.

...continued on page 16

5 Common Myths About Hydrogen Sulfide (H₂S) Safety (cont'd)

Continued from page 15...

In 2017, as a response to growing awareness of the danger presented by H₂S and the need for tighter safety measures, ANSI and the American Society of Safety Professionals (ASSP) released an updated standard—ANSI/ASSP Z-390.1-2017—related to training programs for those working in areas where H₂S is present or potentially present. The updated standards address affected personnel, training delivery methods, and frequency to guide operators to provide more effective worker training. The standard also helps trainers deliver refresher training to keep workers up to date on important information and best practices related to H₂S safety.

Dispelling Common Misperceptions to Better Protect Against H₂S Dangers

Clarifying updated training standards that are often misunderstood helps operators comply with current ANSI standards, enabling them to build more effective training programs that guard against incidents and align with OSHA requirements. Here are five common myths associated with the updated standard that require clarification:

Myth # 1: Workers Can Be Trained with Entirely Computer-Based H₂S Training

TRUTH: Current standards require that some segments of H₂S training be conducted in person and led by a qualified instructor who is certified by a master trainer. A change to the standard is in discussion to require all H₂S training to be in person and instructor-led.

Myth #2: H₂S Training Certification Is Valid Indefinitely

TRUTH: Certification is not valid throughout a worker's career. Completion of a full, instructor-led course is required annually. Abbreviated refresher training is no longer a valid course option.



5 Common Myths About Hydrogen Sulfide (H₂S) Safety (cont'd)

Myth #3: On-Site Visitors Do Not Require Site-Specific Training

TRUTH: Visitors to a site where H₂S is present must receive full instructor-led training. Areas of potential H₂S exposure are not limited to cellars, confined spaces, pits, sewers, and vacuum trucks.

Myth #4: Course Completion Credentials Are Not required When Working on Jobsites

TRUTH: Valid training certification must be provided when reporting to a jobsite.

Myth #5: No Training Is Required for Areas That Do Not Present H₂S Dangers

TRUTH: All personnel working in an area where concentrations of H₂S exceed the industry-recommended exposure limit of 10 parts per million (ppm)—a very low exposure level—must undergo training.

To read the article, click [here](#).

Additional information about hydrogen sulfide is provided on [our website](#). We also have several research papers on this topic.

Quick Links:

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