

Top 13 health scares in 2013

By ACSH Staff — January 29, 2014

1. Chemicals in mosquito spray



Despite an increase in mosquito-borne diseases, many people are

terrified of Anvil an effective killer of adult mosquitos, but completely harmless to humans.

People are are also very worried about the effect of the spray on the environment. Taken together, there is often substantial protest when any kind of spraying is proposed.

Origin of the scare:

Nowhere was this more apparent than in Ocean Beach, one of 17 summer communities located on Fire Island, a barrier beach off the coast of Long Island, N.Y.

As an incorporated village, Ocean Beach was able to opt out of the mosquito control program managed by the Suffolk County Department of Health. While virtually every other community on the island (and much of Long Island as well) was being sprayed every summer, Ocean Beach had not done so in decades, primarily based on advice from the village s environmental commission. The village was playing Russian roulette with people s health. In 2011 there was a bullet in the chamber.

Having fought a six-year battle with stage four colon cancer, the last thing that long-time Ocean Beach resident Jim Capuano needed was to contract a serious, but preventable infectious disease.

Yet, this is exactly what happened. During a one-week vacation in Ocean Beach in August 2011, Jim suffered a grand mal seizure, and miraculously woke up 10 days later from a medically induced coma.

Doctors determined that he contracted West Nile encephalitis a potentially fatal condition from an

infected mosquito during his vacation. Given his already-weakened immune system, Jim was more susceptible to any infection and at times during his time in the hospital he was close to death. While the rest of the island had already sprayed, Ocean Beach's mistaken decision to opt out became especially glaring.

Media Coverage:

In the absence of media coverage of this important issue, ACSH stepped in. At a village meeting in May, 2012, Dr. Josh Bloom gave a presentation about the real toxicity of Anvil zero. He also pointed out that the only alternative is constantly spraying yourself with DEET which, ironically is in a higher class of toxicity than Anvil.

ACSH's perspective:

This is simply another case of faulty risk-benefit analysis in this case driven by an irrational fear of chemicals (as if they are all the same). We have maintained for many years that the irrational fear of chemicals is counterproductive and even harmful. One could not find a better example than this one.

Bottom line:

Sometimes things just work out. After Mr. Capuono told his story, and after the entire community heard Dr. Bloom's testimony, the community changed its mind (except for the environmental commission). One week later the Board of Trustees voted unanimously to join the Suffolk County program. The rest of the summer was delightfully mosquito-free.

2. Electronic Cigarettes (e-cigarettes)



E-cigarettes were developed in China during the early years of the

21st century. The concept is quite simple: the device usually resembles a cigarette; it works by heating a mixture of nicotine in various concentrations in water and propylene glycol or vegetable glycerin, often with flavoring. Temperatures are much lower than tobacco combustion, enough to create the vapor mixture that's inhaled by the user (vaper). Some of the nicotine is absorbed, and the vaper blows out a plume of water vapor that further simulates smoking.

Origin of the scare:

This scare can be credited to our own Food and Drug Administration (FDA), although as

subsequent events revealed, the agency was hardly acting in isolation. The entire Federal health bureaucracy under the Department of HHS has eagerly promulgated the alarmist Don't even try them message to smokers, based on their own agenda and distorted evaluation of studies and surveys. These agencies include, in addition to the FDA, the CDC, NCI, NIH, and the NGOs that receive taxpayer-sourced grants and funding from the government.

The official party line opposing e-cigs and denying their potential benefits was initially manifested in July 2009 when the FDA's then-Principal Deputy Commissioner, Dr. Josh Sharfstein, announced the results of a study he commissioned to evaluate possible toxins and carcinogens in several e-cigarette cartridges and two e-cigarettes. The results were that tobacco-specific nitrosamines (carcinogens) and other toxicants, including an antifreeze compound (diethylene glycol) were detected. Sharfstein went on to declare that highly-addictive nicotine was likely to entice youngsters into a lifetime of smoking addiction from their initial experimentation with e-cigarettes. Other government agencies and nonprofits such as the American Lung Association, the American Cancer Society, the American Legacy Foundation and the Campaign for Tobacco-Free Kids (ALA, ACS, ALF, CTFK, respectively), jumped on the scaremongering bandwagon.

Worse, the FDA decided to deem e-cigarettes a drug or delivery device and as such, unapproved, to bar them from the marketplace and prevent their importation (they were all manufactured in China at that time, and most still are today). The Federal court ruled in 2010 that the FDA was acting outside its legitimate mandate and allowed marketing and importation so long as no health claims were made.

Local authorities and politicians, mainly of the liberal persuasion, spread the party line opposing any consideration of quitting via e-cigarettes. Often these warnings were based on the thoroughly flawed 2009 FDA study, which has never been officially retracted. Their positions often evince confusion between e-cigarette vapor and cigarette smoke, and frequently allege to protect our children from Big Tobacco.

Media Coverage:

It would be an impossible task to even attempt to summarize the media attention the topic of electronic cigarettes received in 2013. Given (A) the groundbreaking and disruptive technology e-cigs represent; (B) the massive public health problem of sickness and death caused by cigarette smoking; (C) the failure of the FDA-approved methods to help smokers quit; and (D) the pervasive crusade against this apparently safe and effective method by the vast tobacco control industry the government, the regulators, the big nonprofits it was (and remains) a subject well-suited for media hyperbole of all types, pro and (mostly) con.

ACSH's Perspective:

The short summary of ACSH's analysis of electronic cigarettes and the pervasive campaign of dis- and mis-information carried out by the public health nonprofits and officials is this: these relatively new devices hold great promise to alleviate the addiction to cigarettes, and its attendant risks of suffering and premature death. The chemicals in them are highly unlikely to pose a threat to

health, as toxicological analysis has confirmed, and even less likely to harm bystanders. The FDA approved methods to help smokers quit have been shown not to be effective. Cigarette smoking kills almost a half a million American smokers (and ex-smokers) each year, sickening 20 times that number.

Bottom Line:

Last century, Evil Big Tobacco deceived and manipulated information to addict millions of smokers to deadly cigarettes. This century, a new conspiracy seems to have developed: Big Tobacco Control. As of this date, the regulatory bottom line is pending. The FDA has not yet revealed its approach to e-cigarettes. The FDA's ruling will determine if the current, vibrant, independent market of e-cigarettes will survive as a lightly-regulated consumer product, or be subjected to stringent requirements based on the 2009 FDA tobacco law or the CDER's drug evaluation arm. Both of these would eradicate the current e-cigarette market, pending years of studies, leading to the takeover by the big tobacco companies and a thriving black market. We hope the FDA's Center for Tobacco Products will allow the current situation to continue, allowing millions of desperate addicted smokers continued access to this lifesaving technology.

3. Genetically Engineered Foods in Hawaii



Hawaiian papayas are grown extensively on the Big Island of

Hawaii (also called Hawaii). The entire production was threatened in the mid-1990s by the Papaya ringspot virus that destroyed the fruit and would have eliminated the crop completely. But scientists inserted a gene from the virus into papayas that conferred immunity on the fruits. Thus the industry was saved.

Origin of the scare:

Last May, a bill was introduced in the County Council proposing a ban on genetically engineered crops on the Big Island. Opponents trotted out the usual list of false claims of damage and risks supposedly caused by such crops, from causing cancer in rats to instigating the production of so-called superweeds. They also pointed to false reports of suicides among Indian farmers who were beholden to companies producing GMO cotton seeds. Celebrities such as Roseanne Barr, Dr. Oz, Oprah and Bill Maher, got in on the act, warning people against eating GMO foods. This ban followed an uproar on the island of Oahu which had been host to seed companies that had been growing and developing GMO crops there.

Media Coverage:

Amy Harmon wrote an extensive and balanced [story](#) ^[1] in *The New York Times* about the plight of one councilman who tried to get at the truth about GMO foods, but ended up bowing to public pressure to vote for the ban (the papayas were exempted from the bill). *The Huffington Post* [covered](#) ^[2] the mayor's signing the bill, which also bans biotech companies from operating on the Big Island their story was shared over 9,000 times.

ACSH's perspective:

The whole sorry story of the anti-GMO bill on the Big Island is a reflection of how small a role science plays in the public's understanding of genetic engineering. The fear-mongers, emboldened by the large and growing organic foods industry, seem to be holding sway. In fact, supposedly scientific studies that purport to demonstrate health risks from GMO foods are typically shown to be bogus or inadequately designed to demonstrate their conclusions. GMO crops are no more dangerous than any other, and often require less pesticides than conventional varieties.

Bottom Line:

Although the bill did pass in Hawaii, laws requiring labeling of genetically modified ingredients and foods have not been widely adopted. Yet the fight continues and it remains to be seen whether scientific truth or ideology will win out. ACSH's Dr. Gilbert Ross recently [commented](#): ^[3] These folks would also have burned heretics and hung witches based on the same quality of evidence used here [in the Hawaii situation]. They seemed to have bent over backwards to ignore and downplay the science, that is the facts or the truth of this technology, not even bothering to give it lip service while rushing to put their own superstitions into effect.

4. GM corn causes stomach problems in pigs

Origin of the scare:



A very flawed and intentionally misleading study by Dr. Judy

Carman, of the Institute of Health and Environmental Research in Australia. The study was published in the *Journal of Organic Systems* a journal backed by the organic food industry.

Media Coverage:

As expected, this one hit the jackpot. A [typical headline](#) [4]: GMO feed turns pig stomachs to mush! Shocking photos reveal severe damage caused by GM soy and corn.

The media bought this hook, line, and sinker. Virtually every headline (except for those from a few clear-thinking bloggers) said the same thing. The only problem was that it was completely wrong.

ACSH perspective:

There are studies and there are studies. They range from excellent to bottom of the barrel. This one was under the barrel.

One way of getting the result you want when the experiment or study does not support it is to use selective reporting of data. Dr. Carman painted a masterpiece here. This could easily be used as a model to demonstrate how data can be manipulated to at least nominally produce results that can be turned into a simple, but misleading headline.

A quick look at the study:

A group of 168 pigs was divided into two groups -- half ate a "normal" diet and half ate the identical diet, except the corn and soy in their diet were genetically modified. After 23 weeks, the pigs were sacrificed and examined. This is where it gets interesting.

The paper is entitled A long-term toxicology study on pigs fed a mixed GM diet. Adverse effects of GM crops found.

They sure did find some adverse effects because the dice were loaded. The study was set up to find them. But are they real? A look at the data on stomach inflammation gives us the answer: No way.

Let s take a look at the numbers:

	# Non-GM Fed	# GM Fed
Nil inflammation	4	8
Mild inflammation	31	23
Moderate inflammation	29	18
Severe inflammation	9	23
Erosion(s)	63	58
Pin-point ulcer(s)	13	9
Frank ulcer(s)	15	17
Bleeding ulcer(s)	0	2

The purple star indicates statistical significance a measure of the quality of the data

The figures under the red arrow are the number of pigs that ate the normal diet. The blue arrow indicates the number that ate the GM diet.

The authors selected eight separate categories of stomach damage (all determinations were made by sight) and compared the two groups.

Taken at face value, the data are nonsensical. For example, eight pigs on the GM diet had no stomach inflammation at all, but that was true for only four of the non- GM-fed pigs. Can you conclude from this that GM food actually protects pig stomachs?

Pigs that ate GM food also appeared to be protected from mild inflammation (23 GM vs. 31 non-GM) and moderate inflammation (18 vs. 29).

But when severe inflammation (this made the headlines) was measured, the GM-fed pigs seemed to have much more of it. Yet, in the next two categories, erosions and ulcers, the trend flips once again.

Bottom line:

How to explain these contradictory up and down trends? Nonsense numbers and selective use of data. If you combined moderate and severe inflammation into one category, there would be little or no effect at all. But by selecting different levels of inflammation, they stumbled across one

category that, on its own, appears to be real, but when taken together with the rest of the data, it is clear that it is not. This is a standard trick for manipulation of results and headlines. But they got caught.

5. Artificial sweeteners make people fat

The Scare:



Last summer, neurobiologist Dr. Susan Swithers presented a [survey](#) ^[5]

of studies on the use of artificial sweeteners that she summarized as supporting her theory that artificial sweeteners, rather than helping people lose weight, actually contribute to weight gain and obesity. Supposedly these compounds interfere with the body's learned responses to sweetness, since the sweet taste is no longer linked to caloric content. This presented an interesting conundrum, since people who wish to lose weight often turn to such sweeteners, which contain few or no calories, to help them do so.

Media Coverage:

Dr. Swither's paper was widely covered and discussed. [CBS News](#) ^[6] was one of the biggest news outlets, and the [NY Daily News](#) ^[7] followed suit. And there were plenty of others especially online. [WebMD](#) ^[8] did a report, as did the [Huffington Post](#) ^[9]. A 2013 [issue](#) ^[10] of *Men's Journal* warned its readers that the sweeteners were also linked to diabetes and heart attacks.

ACSH's perspective:

Dr. Josh Bloom, as usual, pinpointed a basic problem with most of these studies and stories with a simple question: [Does opening an umbrella make it rain?](#) ^[11] In more direct terms, simply noting, as many studies do, that heavy people drink more diet soda than lean people, doesn't mean the soda caused them to be overweight or obese: That confuses correlation and causality. Someone who drinks diet soda rather than full calorie soda may actually consume more calories if they give themselves permission to eat just one more cookie since they've cut calories with the diet soda. Further, although the media did cover the basic story of Dr. Swither's findings, they seem to have missed the critique later published in the same journal by Dr. C.J. Johnston and Dr. J. P. Foreyt of Baylor University, authorities on obesity. These authors [pointed out](#) ^[12] that Swithers had not really

covered the literature completely, and that there have been many studies that support the utility of artificial sweeteners for weight control.

Bottom Line:

Artificial sweeteners are not a magic aid for weight control there is none. But they can be helpful if used correctly, in spite of the doomsayers who want to ignore the importance of context and those with the usual ideological opposition to artificial sweeteners in general. Conflation of cause and effect do not help solve the problem of overweight and obesity leading public health issues today.

6. Phthalates



Phthalates chemicals that are found in many plastic products to

make them more flexible, and are commonly used in toys, medical devices and some cosmetics and fragrances -- have long been attacked by environmental activist groups, labeling them as endocrine disruptors. These activists claim that phthalates cause developmental and reproductive defects. It seems that there is a new scare about phthalates each year, and 2013 was no different.

Origin of the scare:

This time, the phthalate scare came from companies that, in an effort to give the consumer what they want, (in reality, succumbing to pressure created by activist and environmental group), have decided to either ban these chemicals from their products or require products to carry labels with the chemical offenders on them. The most recent reactions to these claims came from Procter & Gamble and Walmart. In response to the claim that phthalates somehow disrupt the endocrine system, Procter & Gamble chose to ban them from the cosmetics they sell. Walmart on the other hand, has decided to require full disclosure of chemicals used by companies selling cosmetics and cleaning products. And to sum it up, Stacy Malkan, co-founder of the Campaign for Safe Cosmetics, says, Walmart would not have taken this bold step were it not for the aggressive corporate campaigns and grassroots organizing efforts of nonprofit organizations |

Media Coverage:

Celebrities such as Jessica Alba, Fran Drescher and Alicia Silverstone have been featured in the media demanding better and safer products, and companies have listened to them. The Campaign for Safe Cosmetics, an activist group involved in pressuring these companies to remove these harmful chemicals, picked up on this move, [stating](#) ^[13], The Campaign for Safe Cosmetics

congratulates P&G for taking bold and globally significant action to protect the health of its 4.8 billion consumers by eliminating two dangerous, toxic chemicals triclosan and DEP [a phthalate] from all its products. The story was also picked up by *The Examiner*, which [highlighted](#) ^[14] claims that phthalates and triclosan may pose health risks such as hormone regulation disruption, antibiotic resistance and increasing a teen s risk of developing insulin resistance. News outlets such as *The Guardian* ^[15] and *The Huffington Post* ^[16] also picked up on this story, both mainly highlighting the environmental activists viewpoints.

ACSH's perspective:

Decades of widespread use of these toxic chemicals indicate that they are safe and do not pose any danger to human health. The actions taken by Procter & Gamble and Walmart are simply responses to activist groups posing as scientific experts, repeating baseless allegations that have turned into public hysteria. Furthermore, the studies used to show detrimental effects of phthalates are not based on sound science. There is no biological hypothesis put forward for how these harmless chemicals are dangerous to our health.

Bottom Line:

As we ve said before when we ve covered the scare about phthalates, there is no mention about what is replacing phthalates as they are being removed from cosmetic products. Phthalates are completely safe. ACSH s Dr. Josh Bloom says, This is the scientific equivalent of three card monte: no one can ever win; remove one chemical just to shut these guys up and they ll be coming for another one next year, or more likely next week.

7. HPV vaccine and Katie Couric

The scare:



The human papillomavirus (HPV) is the most common sexually

transmitted infection. HPV can cause serious health problems, including genital warts and certain cancers. The Advisory Committee on Immunization Practices, the division of the CDC that determines vaccine schedules, has recommended that all boys and girls receive the HPV vaccine before they become sexually active. However, vaccination rates continue to be low and according

to the 2011 National Immunization Survey among teens, only 35 percent of girls ages 13 to 17 have received all three doses of the vaccine. Although there are many reasons behind these low numbers, one of the main reasons is that there are experts out there who claim that the vaccine is unsafe and ineffective.

Origin of the scare:

The most recent (but hardly the first) scare about the HPV vaccine came from Katie Couric in a segment of her daytime talk show, discussing the controversy over the vaccine. If she was thinking that she was presenting a balanced picture of the vaccine, she failed miserably, choosing to feature only a mother who claimed that the vaccine killed her daughter and a medical expert, Dr. Diane Harper, who helped to develop the vaccine but now believes that it is overmarketed and its benefits oversold. Couric left out commentary by Dr. Mallika Marshall of Harvard Medical School, who actually spoke in favor of the vaccine. Therefore, she painted for the public a very unrealistic, scary picture of the vaccine, ignoring the fact that it has been proven safe and extremely effective.

Media Coverage:

Media attention was largely critical about Couric's segment, to the point where she was forced to issue a public apology for failing to provide the public with evidence about the safety and efficacy of the HPV vaccine. The story was covered by [CBS News](#) ^[17], where the fact that scientific evidence didn't jibe with the opinions from Couric's guests, was highlighted. The story was also covered in [Forbes.com](#) ^[18] by Matthew Herper, who was very spot-on in covering the areas where Couric erred in her reporting. Furthermore, the story was [picked up](#) ^[19] by the *Boston Globe*, with the title, Couric fans unwarranted fears of HPV vaccine, as well as the *LA Times*, with [the headline](#) ^[20], Couric under fire for allegedly slanted report on HPV vaccine.

ACSH's perspective:

According to CDC director, Dr. Tom Frieden, prevalence of HPV infection in girls and women fell 56 percent to just 5.1 percent of the population due to vaccination efforts. This should not be surprising because the vaccine is very effective. According to a study of more than 85,000 native-born Australians, after Australia engaged in a campaign to provide free HPV vaccination programs for girls and young women, the incidence of genital warts in adolescent and teenage girls declined by more than 90% in the first four to five years after the program began. Interestingly, although only girls received the vaccine, there was also a reduction of between 50% and 80% in the incidence of genital warts among heterosexual boys and young men. And in the United States, the prevalence of HPV has been cut in half among teenage girls.

Furthermore, numerous studies have consistently shown that there is no link between HPV vaccines and serious side effects, including those conducted by the CDC and published in the *Journal of the American Medical Association*.

Bottom Line:

There is no reason why a parent should choose not to have their child vaccinated. The HPV vaccine is extremely safe and effective. As ACSH's Dr. Gilbert Ross has said in the past, accomplishing widespread protection from HPV will surely lead to a major decline in the incidence of several types of viral-related cancers. We have a cancer vaccine: Let's use it!

8. Blatantly False Nuclear Scare in Huntsville, AL

Origin of the Scare:



A [report](#) [21], which was commissioned by the Bellefonte Efficiency

and Sustainability Team and Mothers Against Tennessee River Radiation, suggesting that there was increased infant mortality near a nuclear power plant in Huntsville, AL was released by an anti-nuclear power group that is known for stirring up phony nuclear scares.

Using a statistical slight of hand and a carefully crafted and intentionally misleading headline, Joseph Mangano Radiation and Public Health Project, and colleagues successfully scared the people of Huntsville, Alabama into thinking that there was an increase in infant mortality (and cancer) due to the nearby Browns Ferry Nuclear Plant.

Media Coverage:

As expected, the report did its job, and there was coverage on multiple news and Internet sites. A typical headline read: Higher death rate for people around U.S. nuclear plant or [Environmental Group Says Study Shows Those Living Near Browns Ferry Nuclear Plant Have Higher Mortality Rates](#) [22]

Fortunately, Margot Gray, a reporter for *NBC* affiliate, *WAFF* in Huntsville AL, did an extensive (and fairly balanced) investigation, which included an interview with ACSH's Dr. Josh Bloom.

ACSH Perspective:

There was not a shred of credible evidence of any increase in infant mortality.

The group's previous tactics were exposed by Dr. Bloom in his January, 2100 *Forbes* op-ed [entitled](#) [23] "Garbage In, Anti-Nuclear Propaganda Out: The 14,000 Death Fukushima Lie," where they claimed that within the first three months following the accident something that is physically

impossible excess deaths were seen in multiple cities across the US.

Based on this op-ed, *NBC* affiliate, *WAFF* in Huntsville AL, contacted Dr. Bloom and asked him to evaluate the validity of the claims. The resulting [article](#) [24] and [TV interview](#) [25] made it crystal clear why the report was a farce. Here is an example:

**Infant Mortality, Age 0-1
Seven-County Area in Northern Alabama vs. U.S.
Five Year Periods, 1968-2010**

Period	Deaths/1000		Local Deaths	% Local vs. U.S.	
	Local	U.S.			
1968-1973	20.99	19.71	1,084	+ 6.5	
1974-1978	16.99	15.16	639	+12.1	
1979-1983	12.73	12.05	501	+ 5.7	
1984-1988	10.06	10.36	411	- 2.8	
1989-1993	8.39	8.98	390	- 6.5	
1994-1998	7.54	7.47	346	+ 0.8	
1999-2003	7.76	7.14	352	+ 8.7	
2004-2008	8.56	6.99	419	+22.6	
2009-2010	7.80	6.42	154	+21.6	

Even a cursory examination of their data revealed the obvious there was no increase, and the entire issue" was made up from selective misuse of statistics.

The authors compared the infant mortality rate during five-year intervals before and after the Browns River plant opened in 1974. This is where it all falls apart.

As compared to the mortality rates to the rest of the U.S., Mangano tries to make his case that the power plant may be a factor in infant mortality. But all you have to do is look at the numbers and the absurdity of this claim becomes obvious.

During the five-year period before the plant opened, the infant mortality rate in seven counties that Mangano selected was 6.5 percent (red arrow) higher than that of the U.S. During the five-year period after the plant opened that number jumped to 12.1 percent (blue arrow). Oh oh, right? Not exactly. During the next two five-year periods (yellow arrow) the rate drops to below the U.S. average. Then it becomes equal to the national average, and then rises significantly.

Does this make sense? Of course not a fact that is conveniently ignored in the author's conclusion:

"The unusual and steady rise in local death rates should be taken seriously by health officials, who need to conduct their own studies to examine potential causes -- among them, toxic releases from Browns Ferry."

No, there is not a steady rise in the local death rate. Nothing here makes sense. It is clear that the entire 54-page report is based on meaningless numbers and innuendo.

Bottom line:

Garbage in, garbage out.

9. Fracking (hydraulic fracturing)



High-volume hydraulic fracturing (HVHF) of shale formations AKA

fracking has been in widespread use to rupture shale deposits of oil and natural gas (NG). Regions most involved in fracking include the Texas-Louisiana border area, and North Dakota, Colorado and Wyoming. However, beginning in the first several years of this century, the more difficult task of releasing these fossil fuels from the tighter shale formations, the Marcellus below the Appalachian region from Albany to West Virginia, and the Utica field below eastern Ohio, was solved technologically. Soon many sites of these shale plays came under HVHF development, with vast amounts of NG recovered. Pennsylvania especially had a major influx of such drilling sites, with the large majority of landowners finding leases to oil and gas exploration companies to be highly lucrative, with minimal interference with their normal agricultural activities.

Origin of the Scare:

As drilling activity increased in the northeast, the momentum of its progress hit a major roadblock: the release in 2010 of the documentary *Gasland* by filmmaker Josh Fox clearly ignited anti-fracking hysteria as an activist environmentalist mass movement. The key moment in that movie, shown over and over again on screens large and small, was a homeowner in protective goggles turning on his tap water and setting it on fire with a match. This resulted in the widespread mythology that the new technology, fracking, involved dangerous procedures leading to predictable leakage of toxic-chemically-treated water at high pressure, guaranteed it seemed to edge its way into your aquifer, well water, and tap water. Few of those complaining had any idea what the fracking process entailed, nor that in the prior decades in the western regions, this methodology had been safely employed without the toxic findings seen, or heard about, in the northeast.

The anti-fracking movement became a *cause celebre* among some members of the entertainment elite, especially those with landholdings in the Southern Tier region of NY State, such as Mark Ruffalo and Yoko Ono. These folks commanded a large megaphone, and utilized it bluntly to put political pressure on the state leaders, including Governor Andrew Cuomo, whose observation of

the mobilization of tens of thousands of those opposed to fracking could not help but influence his decisions or rather his lack of decision on allowing the process in the state. He has resorted to an endless round of health impact assessments under the seeming authority of the Health Commissioner, Dr. Nirav Shah, who complied with the apparent plan to avoid coming to any decision until all possible health and environmental impacts were completely studied.

Media coverage:

The mainstream media credulously swallowed the toxic fracking and contaminated water messages pumped out by the Don't Frack New York groups and a plethora of like-minded ad hoc groups. News articles quoted homeowners in areas of Pennsylvania where shale fracturing was ongoing, asserting odiferous and discolored water, causing various ailments among their family members. The town of Dimock, PA presented several such complainants and the drilling company Cabot Oil & Gas did agree to supply purified water to the town's residents for several months, pending official investigations. When the EPA found no evidence of HVHF-related water contamination, these deliveries ceased. The townsfolk who continued to believe that fracking fouled their water did continue litigation for a time against Cabot. (A similar contamination investigation in Pavillion, WY also found no smoking gun, and the EPA yielded the study to the state authorities.)

In December of 2012, Ono and several of her anti-fracking cohorts (including her son Sean Lennon) organized a bus tour of the fracking regions of southern Pennsylvania. This became a media circus, whose goal seemed to be to rabble-rouse against fracking in the region, but much of the media glare was aimed at the elite on the bus rather than the issues relevant to fracking. The Sierra Club and Food and Water Watch, along with the Natural Resources Defense Council (of course) aided the other groups and attracted their usual media attention.

ACSH's perspective:

Objective evidence of hydraulic-related fracturing water contamination remains elusive at best. The simple fact that shale fracturing occurs at levels of 5,000 to 9,000 feet underground while aquifers are only several hundred feet down explains the lack of such proven instances. Authorities including DOE Secretary Muniz, the U.S. Geological Survey, former EPA head Lisa Jackson, and the U.S. Government Accountability Office (GAO) have all stated that they were unaware of fracking-related groundwater contamination. Our synopsis of this irresponsible, unscientific attack on a major technological advance is to be found [here, in an op-ed](#) ^[26] by Dr. Elizabeth Whelan: Fracking would be a huge boon to economically depressed areas of rural New York State. Our society cannot afford to let elitist environmentalists posing as public health advocates hold sway over our economy. It's time for New York to legalize fracking.

Bottom Line:

There are probably a few instances of surface water contamination whose sources are fracking sites due to negligence or accidents, or water-flowback issues, rather than some inherent danger

of the fracking process itself. However, considering that there are approximately two million HVHF sites active in America, complete absence of any such issues would be truly remarkable indeed. On balance, the massive benefits to our economy and energy independence and employment in localities where fracking has taken hold render environmental issues obstacles that can and will be solved with improved technologies. It should be noted, in conclusion, that the tap-water flame so famously highlighted in *Gasland* was confirmed to be a result of naturally-occurring methane in the nearby Colorado water table, and not related to any fracking activity. Josh Fox and his coterie have of course never acknowledged this inconvenient fact.

10. Arsenic in apple juice and rice

Origin of the scare:



In 2011, on his television show, Dr. Mehmet Oz revealed the

results of tests on several brands of apple juice. He announced that a number of samples contained high levels of arsenic, and warned parents to beware of giving young children one of their favorite beverages. Then, in 2012, Consumer Reports followed up with an [investigation](#) ^[27] into the levels of arsenic found in rice and rice products. In 2013 the FDA stepped in with its own guidance, setting limits for arsenic at the same level as those for water.

Media Coverage:

Initially, the FDA responded sharply to the apple juice scare by accusing Dr. Oz and his team of inflating the risks from levels of arsenic in juice that their own tests didn't find to be excessive. Dr. Oz's team had not, the FDA pointed out, separated organic arsenic (not harmful) from inorganic arsenic (harmful) in their tests. Both the Oz claim and the FDA responses were covered widely: by [ABC News](#) ^[28], [CBS News](#), [Good Morning America](#), and more.

After the Consumer Reports article, the FDA confirmed the results of the Consumer Reports investigation, and that too was widely covered e.g. by [The New York Times](#) ^[29] as well as [online](#) ^[30]. In 2013 the FDA released a [draft guidance](#) ^[31] for industry, stating that the 'action level' for inorganic arsenic in apple juice would be 10 ppb, or the same as that for water.

ACSH's Perspective:

As we've pointed out many times, perhaps most elegantly in our [Holiday Dinner Menu](#), ^[32] minuscule amounts of virtually any chemical pose no danger to human health. Simply finding a

toxin like arsenic in foods doesn't necessarily mean that there's a health risk involved. Indeed, a natural element like arsenic will end up in many natural products since it's found in the earth and in water; so any plant or plant product, depending on where it's grown, is likely to contain some arsenic. The FDA's own tests did not initially find excessive levels of arsenic in either the juice or the rice products they tested. The FDA only changed its mind in response to the Consumer Reports investigation, which spurred them to conduct their own re-investigation.

Bottom Line:

Levels of arsenic in apple juice and rice products should not be concerning to parents of young children or anyone else. All foods should be consumed in moderation this will prevent excessive consumption of any potentially problematic food or ingredient.

11. Brominated vegetable oil in drinks



Brominated vegetable oil is commonly used as an emulsifier in

citrus-flavored sodas sold in the United States. It is often (and wrongly) grouped with chemicals that are used as flame retardants. This idea itself is wrong, since it is based on the fact that since both chemicals contain multiple bromine atoms, they must be pharmacologically related -- an incorrect claim. Furthermore, the substance has been referred to as an endocrine disruptor. This confusion has led to a series of incorrect assumptions against brominated vegetable oils.

Origin of the scare:

The most recent scare regarding brominated vegetable oils springs from a petition, started by Sarah Kavanaugh, a 15-year-old Mississippi high school student, who calls on PepsiCo to stop using brominated vegetable oil in its Gatorade brand of sports drinks. In January of 2013, PepsiCo actually made the decision to remove brominated vegetable oil from its citrus-flavored Gatorade drinks. However, PepsiCo spokeswoman Molly Carter told the *Associated Press* the change was in the works for a year and was not in response to a recent petition on Change.org by the Mississippi teenager who attracted 200,000 signatures. Well, the media certainly picked up on this move and did not miss any chances to call brominated vegetable oil a flame retardant.

Media Coverage:

The story was [picked up](#) ^[33] by ABC News, with the lead being That soda with the lime-green hue (and other citrus-flavored bubbly pops) won't keep your insides fireproof, but it does contain brominated vegetable oil, a patented flame retardant for plastics that has been banned in foods

throughout Europe and in Japan. That set the stage to appropriately scare consumers. The story was also covered by the [LA Times](#) [34] and [The Guardian](#) [35]. *The New York Times* also [did a story](#) [36] featuring Kavanaugh and her petition.

ACSH's perspective:

According to ACSH friend Derek Lowe, cancer researcher and creator of In the Pipeline the premier blog in the world of pharmaceutical research it is incorrect to insinuate that the bromine compounds used to keep carpets from catching on fire is found in your cooking oil. Furthermore, the FDA deems BVO as safe in fruit-flavored beverages in amounts not to exceed five parts per million. According to an FDA spokesperson, this is based on a large margin of safety between the expected human exposure from its use and the highest no-observed-adverse effect levels from several long-term animal studies that were conducted on this substance. The set limit is well under that from which an effect was observed.

Bottom Line:

Although PepsiCo did decide to remove brominated vegetable oil from its drinks, there is no reason to be afraid of this compound. ACSH's Dr. Ruth Kava noted: Gatorade has been safely ingested by millions of professional and amateur athletes and many non-athletes for over 40 years with no evidence of harm. And ACSH's Dr. Gilbert Ross added, "If every time an activist group charged some chemical with being toxic, and a large, respected company making safe products changed their formulation in response, that would not be a productive move."

12. 5 Foods you should NEVER eat

Origin of the Scare:



Last summer, CNN's medical correspondent Dr. Sanjay Gupta aired a [segment](#) [37]

he should have reconsidered. Basically, he allowed David Jack, a contributing editor to *Men's Health* magazine, to attribute various negative health impacts to:

- strawberries: according to the Environmental Working Group, Jack states, non-organic strawberries contain too many pesticides to be healthy.
- white chocolate: Jack assures us that white chocolate contains none of the antioxidants

naturally found in the cacao bean.

- sprouts: because they need warm, moist environments to grow, they provide an ideal growth medium for various bacteria.
- canned tomatoes: we supposedly should avoid the cans because they are lined with a resin called BPA. Jack assured us that this is an endocrine disruptor and must be avoided at all costs.
- swordfish: avoid because of its high mercury content.

Media Coverage:

Obviously, *CNN* has a wide viewing audience, both on air and online. And the piece was [dissected](#) ^[38] by Dr. James Cooper, Food Examiner of Fairfield County, CT. Of course, the *CNN* piece was [posted](#) ^[39] on *YouTube*, with over 50,000 views without commentary.

ACSH's perspective:

We do not [agree](#) ^[40] with Dr. Cooper's assessment that Dr. Gupta hit only 1 for five. He really struck out on all five. We do not advocate that consumers avoid sprouts. Just like any other fresh produce that may be consumed raw, there is some risk of foodborne illness. The only reason to avoid consuming sprouts is if there is word of a contamination event.

For the dangers from the other four foods on the list not problems.

- The resin Jack was so concerned about in tomato cans is BPA, which has such weak endocrine activity that it really doesn't count. It is used to keep the acidic tomatoes from contacting the metal of the can and perhaps picking up metallic contamination. BPA is nothing to be concerned about. It is excreted quickly from the body it doesn't hang around.
- White chocolate, it is true, doesn't contain antioxidants. It is essentially cocoa butter. But so what? It's candy, not a food that any sane person would look to for a nutritional bump. And even though dark chocolate contains those longed-for antioxidants, it's still candy too, and no amount of antioxidants can change that fact.
- Strawberries are delicious, healthy foods, whose reputation has been repeatedly besmirched by the EWG and others of its ilk. And there are pesticides used on organic strawberries too -- just ones that have been approved for such use.
- The only people who the EPA advises to avoid swordfish are pregnant and nursing women and small children. For the rest of us, the mercury levels are below the minimums set by the European Food Safety Authority.

It is a shame that Dr. Gupta did not challenge any of Jack's assertions: he did a disservice to his viewers by neglecting to do so.

Bottom Line:

Proliferation of these warnings about foods are rampant especially on the internet. Dr. Gupta should refrain from fanning the flames of such nonsense.

13. Acrylamide in foods



Acrylamide is used to produce polyacrylamide, which is used in

water purification and to make polyacrylamide gels, used in protein DNA identification schemes. It was never thought to be in foods until 2002 when Swedish scientists reported finding it in carbohydrate-containing foods cooked using methods involving high temperatures, such as frying.

Origin of the Scare:

Although people who were exposed to high levels of acrylamide in industrial settings reported some neurological problems but no increased incidence of cancer, the Swedish scientists initially reported that consumption of acrylamide-containing foods could increase cancer risk. Then a second report came out showing that that was not the case. But it was too late. The thought that something in foods, although present since man started frying tortillas and baking bread, might be a risk to health, galvanized supposed consumer groups and generated huge media attention. The ever-vigilant Center for Science in the Public Interest, for example, [called on](#) ^[41]the FDA to regulate acrylamide levels in foods. Even though the tests suggesting carcinogenicity were done in rodents consuming high doses of the substance, this didn't stop alarmists from deciding that acrylamide was a deadly threat to consumers of french fries (interestingly, they didn't seem to be concerned about bread, which is also a source of acrylamide, as are black olives).

Then, last November, the FDA got acrylamide back in the news when they issued a so-called [draft guidance](#) ^[42] for industry, suggesting ways the food industry might decrease the levels of acrylamide in foods.

Media Coverage:

An article in [Forbes](#) ^[43] noted the FDA's action and proceeded to advise consumers to cook foods in such a way as to minimize acrylamide formation. This, even though human data on cancer caused by acrylamide is lacking. On his [website](#) ^[44], Dr. Mercola opines that because of its acrylamide content, even a healthy food like sweet potato could significantly increase the risk of cancer. Both [NBC News](#) ^[45] and [Fox News](#) ^[46] touted the FDA's new action, and warned against the substance.

ACSH's perspective:

As we've said many, many times, most recently [here](#) [47], a substance fed to rodents at high doses doesn't necessarily predict what effect small amounts might have on human health. Indeed, we noted a joint committee of the World Health Organization and the Food and Agriculture Organization of the United Nations [concluded](#) [48] that epidemiological studies do not provide any consistent evidence that occupational exposure or dietary exposure to acrylamide is associated with cancer in humans.

Bottom Line:

Again, small doses of a rodent carcinogen do not necessarily make a human carcinogen. Cooking results in many changes in food chemistry, with the formation of acrylamide being just one of them. As we've also said before, moderate consumption of a varied diet should alleviate any concerns about rodent carcinogens in our foods.

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Links

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