

TOXIC METALS & CHRONIC DISEASES

DNA and Mitochondrial Time Bombs: Uranium & Mercury

By Mark Sircus

March 3, 2008

NaturalNews) Hyperinsulinemia may promote mammary carcinogenesis. Insulin resistance has been linked to an increased risk of breast cancer and is also characteristic of type 2 diabetes. Diabetes and cancer are both expanding almost exponentially in the world today and can in part be traced to the increasing radiation to which we are all being exposed. Every physician knows that radiation can lead to cancer, but making a connection between radiation and diabetes seems ludicrous at first glance but is anything but. Most medical doctors have never heard of this and neither have they paid attention to the fact that mercury and other toxic chemicals are also primary causes of diabetes. Even though there is little research into the connection between radiation poisoning and diabetes we should not remain blind, deaf and dumb about it.

Diabetes is a fundamental disease that affects the entire colony of cells in a person because it has to do with energy metabolism and the vastly important hormone insulin and its receptor sites.

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Nakato Lewis

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Thus it comes as no surprise that we find diabetes and cancer intimately linked. About 80% of pancreatic cancer patients have glucose intolerance or frank diabetes. This observation has led medical scientists to believe that pancreatic cancer causes the associated diabetes and also that those conditions associated with diabetes promote the development of pancreatic cancer. A study, published by the American Medical Association in 2005, of more than 1 million South Koreans suggests diabetes can raise the risk of developing and dying from several types of cancer, including digestive-tract tumors. We can thus say with reasonable confidence that whatever is causing diabetes is also, in part, causing cancer.

In their book "Infectious Diabetes", Doug Kaufman and Dr. David Holland describe a significant link between diabetes and cancer, pointing out that when our immune system is compromised and unable to fight off a fungal invasion and stop the proliferation, that it is not coincidence that diabetics have a 4 times greater rate of liver cancer. Diabetics also have double the risk of pancreatic cancer compared to non-diabetics according to recent studies presented to the Third Annual Frontiers in Cancer Prevention Research Meeting in Seattle in 2004. Fungi feed on the sugar in the blood stream, as well as in the liver where glycogen is stored for the body's energy needs. The Aspergillus mold toxin, aflatoxin B1, inhibits the breakdown of both glucose, or simple sugar, and glycogen.

The strongest hypothesis to explain why diabetes might increase the risk for certain cancers revolves around hyperinsulinemia, the high blood levels of insulin characteristic of diabetes. "From animal studies we know that high insulin levels can directly promote tumor growth," said Frank Hu, M.D., assistant professor of nutrition at the Harvard University School of Public Health, Boston. Hu and colleagues concluded in a 1999 paper, based on data from the Nurses' Health Study, that diabetes conferred an increased risk of colorectal cancer in women. Patients with diabetes were 1.43 times more likely to get colorectal cancer, and 2.39 times as likely to die of colorectal cancer.

"Depleted (DU) uranium is highly toxic to humans, both chemically as a heavy metal and radiologically as an alpha particle emitter, which is very dangerous when taken internally," writes Dr. Rosalie Bertell, Canadian Epidemiologist.

A new study, conducted by biochemist Dr. Diane Stearns at Northern Arizona University confirms that, separate from any radiation risks, cells exposed to uranium will bond with the metal chemically. Uranium and phosphate have a strong chemical affinity for each other and the

DNA and Mitochondria are loaded with phosphate so uranium is a DNA and Mitochondria deep-penetration bomb. The uranium is attacking on fundamental cellular levels while mercury offers a knock out punch by attacking the sulfur bonds, besides being highly toxic to nerve cells.

Diabetes is often conceptualized as a severe imbalance of part of the endocrine system and destroys our ability to metabolize food. The imbalance results in elevated levels of insulin, a lack of insulin, or cell insulin receptor sites becoming insensitive to insulin.

Metals such as iron, mercury, arsenic, lead and possibly aluminum play a role in the actual destruction of beta cells which stimulates an auto-immune reaction to them after they have bonded to these cells in the pancreas. It is well documented in the medical literature that chemicals and drugs can cause temporary or permanent insulin-dependent diabetes.

Both mercury and uranium oxide are floating in the environment like invisible clouds and have spread out everywhere. They are raining down on us, damaging and damning our future.

Simultaneous exposure to mercury and uranium shows markedly-increased damage to the kidneys, than when exposure is to each metal singly. Insulin has three sulfur-containing cross-linkages and the insulin receptor has a tyrosine kinase-containing sulfur bond. These are the preferred targets for binding by both mercury and lead. Should mercury attach to one of these three sulfur bonds, it will interfere with the normal biological function of the insulin molecule. Nephrotoxicity of the kidneys with necrosis of proximal tubules has been seen to increase significantly with dual exposure to both uranium and mercury.

In February, 2007 The Canadian Institute for Health Information (CIHI) reported that the number of new cases of kidney failure jumped 114 per cent. The burden of renal disease is also growing rapidly in India. The mean age of End Stage Renal Disease (ESRD) patients requiring dialysis in India is 32-42 years compared to the 60-63 years in the developed world. Chronic kidney disease (CKD) is a worldwide public health problem.

Doctors fear that within a generation or so, a huge wave of new cases could overwhelm the public health system thus engulf growing numbers of the young, creating a city where hospitals are swamped by the disease's handiwork, schools scramble for resources as they accommodate diabetic children, and the work force abounds with the blind (New York Times).

We can expect this pandemic in diabetes to contribute directly to rising cancer rates.

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AFRIKAN SPIRITUALITY

African Indigeneous Spirituality

Has Never Been Institutionalized

Religious Talk from an Afrocentric Perspective

Rukwata Ndoro

August 16, 2003

Writing in the Mail and Guardian, 18 August 2000, the ANC head of religious affairs, Cedric Mayson, sees ancestor-based African spirituality as founded on enduring family lineages.

These form complex but traceable links "sourced in the substratum of basic human spirituality" that predates the emergence of all organized religions. Invaders tossed it aside because it was not written down, but the strength of African (spirituality) was that it had never been institutionalized.

Institutions could be defeated, spiritual experience cannot. It continues to stir a critical mass of people with a holistic experience of life that permeates visions, faith, experience, hope and relationships, but is not tied down to books, buildings, and priesthoods.

Many who have joined the congregations of the imported religions still carry with them the insights of their own ancestors. African Indigenous Spirituality (AIS) expresses a communal awareness . . . (It is an) expression of community building relationships.

It prompts a faith defined by relationships not possessions, by caring not by a creed, by enjoying human fulfillment not adhering to orthodoxy . . . (It defines) morality not as an individual goodness, but a cooperative project of survival. It depends on recovering a community consciousness that thrives because people feel involved with one another.

Few rob and cheat and kill in their own circle, or force family members to live without income in the churches, temple, mosques or power structures . . . (It) affirms the common ground of being, a common ground in all humanity".

As a whole body of thought, Indigenous Spirituality guides an African by encompassing all aspects of his/her life. It provides a common bond among Africans and deals with spiritual obligations, interpersonal relations and ritual observances through four rites of passage, celebration and grief, law and ethics, and survival activities. Out of these, comes out African socio-economic and juridical-political institutions, structures and systems.

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The traditional shrine as a symbol of our cultural history

In contrast, some religions turn human interest away from this world to the imaginary world to come by claiming through song and cliches that we do not have a place we call home on this world (hatina musha panyika). Such a religious position sees the condition of the soul after death as having little or no relationship with the current condition of the Biological Body.

Indigenous Spirituality is centered on a being, and is intended to procure, secure and address an African's well being, security and protection, here and now ('iye zvino pano'). It does not curse the present and yearn only for the future.

Afrocentrically, Mwari Musiki/uMdali, the Creator is not considered as having gender specificity, nor conceived in human-like terms, state and condition. Mwari Musiki/uMdali is the invisible and inherent Energy in the indefinable universe, and the infinite source of the universe beyond the concept of time and space. " . . . When any mind (grows) among us to adulthood, it (grows) beyond . . . fables and (comes) to understand that there is indeed a great force in the world, a force spiritual and able to shape the physical universe, but that force is not something cut off (deposited in a place called heaven), not something separate from ourselves.

It is an energy in us, strongest in our working, breathing, thinking together as one people; weakest when we are scattered, confused, broken into individual, unconnected fragments". - Ayi Kwei Armah, 'Two Thousand Seasons'.

In Yoruba, it is called Olodumare; in Gikuyu, Masai and Wakamba (Kenyan ethnic languages) it is called Ngai. The Akan call it Onyame or Onyankopon.

Therefore, African Indigenous Spirituality is essentially an acknowledgement and recognition of a supreme spiritual power of life Energy. It is conceived as beginningless and endless, while the universe co-exists with the life Energy.

Akhnton, the 'black' monarch of Ancient Egypt who lived 1,300 years before Jesus Christ and many centuries before

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FEATURED ARTICLES

Depleted Uranium, Diabetes, Cancer and YOU

By Alan Cantwell, MD

January 18, 2007

Recently, I received an intriguing email claiming that the rapidly increasing worldwide epidemic of diabetes was caused by depleted uranium (DU). As a medical doctor I never heard of such an idea. Every physician knows that radiation can lead to cancer, but the DU and diabetes connection seemed ludicrous. Nevertheless, I thought it would be interesting to check it out on the Internet.

The best tool for medical research on the Net is the PubMed website sponsored by the US National Library of Medicine. I typed in the keywords: depleted uranium and diabetes. No citations to scientific papers in the medical journals appeared on my computer screen, which further assured me there was no scientific connection. Even when I used key words - depleted uranium and human disease - only a mere 16 papers were cited on the subject from 1994 to 2005; and only half these papers addressed the medical *problems* of soldiers exposed to DU in the Gulf War.

What was revealed is that DU accumulates in lymph nodes, brain, testicles, and other organs, and the short term and long term effects of DU were not known. There was a definite increase of birth defects in the offspring of persons exposed to DU; and Gulf War vets who inhaled DU were still excreting abnormal amounts of uranium in the urine 10 years later.

Why was there so little written about DU and its effects on the human body? Having written extensively on the man-made epidemic of AIDS and its cover-up for two decades, I was not surprised. I strongly suspected research into the health effects of DU on Gulf War veterans was "politically incorrect." On the other hand, a quick Google Internet search of - "side effects" + "depleted uranium" - referred me to 71,000 English pages on the web. When I added the key word "diabetes" there was 22,000 pages.

I also discovered that articles about the health dangers of DU rarely, if ever, appear in the major media. In a January 2001 press release FAIR (Fairness & Accuracy

in Reporting) accused the media of "depleted coverage of depleted uranium weapons." Nevertheless, a great deal of information on DU can be found on the Internet.

DU was first used by the US in the 1991 Gulf War, then in the Balkans in the late 1990s, in Kosovo in 2000, in the war against Afghanistan, in Iraq in 2003, and also by the Israelis in the 2006 war with Lebanon.

Needless to say, US military and government officials totally deny any health danger from DU. A reassuring New York Times article of 9 January 2001 entitled "1999 U.S. document warned of depleted uranium in Kosovo" by Marlise Simons, noted "while acknowledging the hazards, both the Pentagon and NATO, pointing to medical experts, have denied any links could exist between exposure to depleted uranium and the illness and deaths of veterans."

DU weapons were developed by the US Navy in 1968, and were first given to Israel by the US in the 1973 Arab-Israeli war. Since then, the US has tested, manufactured and sold DU weapons systems to 29 countries. Vieques Island, a testing site in Puerto Rico, was repeatedly bombarded with DU in 1999 prior to its use in Kosovo.

DU is a byproduct of the enriching of natural uranium for use in nuclear reactors. As nuclear waste, DU is costly to keep but relatively inexpensive to obtain. Due to their tank armour-piercing capabilities, DU weapons are extremely effective and the reason why the military is so enthralled with them.

Depleted Uranium Whistleblowers

Major Doug Rokke is a leading DU expert who has become a whistleblower against its use. He claims each tank round is composed of 10 pounds of solid uranium-238 contaminated with plutonium, neptunium, and americium. The round is pyrophoric, meaning it generates intense heat on impact, easily penetrating a tank because of the heavy weight of the

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metal. When DU munitions hit, they produce a firestorm inside any vehicle or structure, resulting in devastating burns and injuries to those who escape immediate death and incineration.

On impact, DU produces uranium oxide dust and pieces of uranium explode all over the place. Once inside the body the tiny nanoparticles enter the lungs and blood stream and are carried throughout the body.

When Rokke and his team were assigned to "clean up" the DU after the first Gulf War all his men got ill within 72 hours with respiratory problems, rashes, bleeding, and open sores. In an Australian interview with Gay Alcorn in 2003, Rokke admitted: "After everything I've seen, everything I've done, it became very clear to me that you can't take radioactive wastes from one nation and just throw it into another nation. It's wrong. It's simply wrong."

According to Asaf Durakovic MD of the Uranium Medical Research Centre in Washington DC, the term "depleted uranium" is a misnomer. Both "depleted" and "natural" uranium are over 99% composed of uranium 238. DU is almost as highly concentrated as pure uranium and may contain plutonium (a deadly element) in trace amounts.

Lauren Moret is an independent American scientist who works on radiation and health issues with communities around the world. At age 61, she is the leading activist against the use of DU, having worked in two nuclear weapons labs, including the Lawrence Livermore National Laboratory in Berkeley, California, run by the US Department of Energy. She is the ultimate antigovernment whistleblower on DU, along with Rokke and Durakovic, and all three have personally suffered (including death threats) for their anti-DU views.

In her article "Depleted Uranium: The Trojan Horse of Nuclear War," which appeared in the June 2004 World Affairs Journal, Moret claims: "The use of DU weaponry by the US, defying all international treaties, will slowly annihilate all species on Earth including the human species, and yet this country continues to do so with full knowledge of its destructive potential."

DU travels. DU radioactive particles are picked up by the atmosphere and are transferred by wind storms and air currents. They permanently contaminate vast regions and slowly destroy the genetic future of populations living in those areas.

Depleted Uranium over the United Kingdom

DU has a very high affinity for cellular DNA and

permanently damages it. DU is the "fourth generation of nuclear weapons. First came the atomic bomb, then the hydrogen bomb, then neutron bombs, and now DU. Moret claims the contaminated DU-dust from the Middle East gets absorbed into the atmosphere. Via dust storms and air currents it ends up in Europe and Britain. Eventually it spreads and get absorbed into the atmosphere globally. There is no safe place; no possible way to escape it.

Moret's concerns are confirmed by a 2006 report from England by Chris Busby and Saoirse Morgan, appearing in European Biology and Bioelectromagnetics and titled "Did the use of Uranium weapons in Gulf War 2 result in contamination of Europe?" Data (obtained with the help of the Freedom of Information Act) from the Atomic Weapons Establishment at Aldermaston, Berkshire, UK, revealed that after nine days of the "shock and awe" start of the Iraq war on 19 March 2003, much higher levels of uranium were picked up on five sites in Berkshire. On two occasions, levels exceeded the threshold at which the Environment Agency must be informed, though still within safety limits. These levels were the highest levels of depleted uranium ever measured in the atmosphere in Britain. The report also confirmed weather conditions over this war period, which showed a consistent flow of air from Iraq northwards.

Not surprisingly this research was vigorously denied as "uranium of natural origin" by various government officials. However, Busby and Morgan insist the findings are the first evidence that DU particles were able to travel thousands of miles from Baghdad to England. Their report can be found on the Internet.

Gulf War Syndrome

About 300 tons of DU was dispersed over Iraq in 1991. Yet the US Department of Defense (DoD) has found little health risk to soldiers who inhaled DU and continues to claim exposure to DU is safe. Nearly 580,000 soldiers were deployed in the war. 294 soldiers died and 400 were wounded or became ill. As of year 2000, there were 325,000 on permanent medical disability, and over 11,000 have died. Obviously something serious happened to the health of these men and women who served in the Gulf.

DU is known to be neurotoxic. Gulf War vets are twice as likely to come down with ALS (Lou Gehrig's disease) than vets who did not serve in Iraq. ALS, a fatal neuromuscular disease, is now considered a "service-connected" disease and vets can get disability. Gulf War vets have nearly twice the prevalence of "chronic multi-system disease" than soldiers who served elsewhere at the same time. But so called "Gulf War Syndrome" continues to be denied as a specific illness. The Department of Defense's evaluation does not consider GWS as a unique syndrome, unique

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FEATURED ARTICLES

Lead for Car Batteries Poisons an African Town

Battery recycling leaves deadly levels of contamination, claims 18 children

Associated Press

January 4, 2009

THIAROYE SUR MER, Senegal - First, it took the animals. Goats fell silent and refused to stand up. Chickens died in handfuls, then en masse. Street dogs disappeared.

Then it took the children. Toddlers stopped talking and their legs gave out. Women birthed stillborns. Infants withered and died. Some said the houses were cursed. Others said the families were cursed.

The mysterious illness killed 18 children in this town on the fringes of Dakar, Senegal's capital, before anyone in the outside world noticed. When they did — when the TV news aired parents' angry pleas for an investigation, when the doctors ordered more tests, when the West sent health experts — they did not find malaria, or polio or AIDS, or any of the diseases that kill the poor of Africa.

They found lead.

The dirt here is laced with lead left over from years of extracting it from old car batteries. So when the price of lead quadrupled over five years, residents started digging up the earth to get at it. The World Health Organization says the area is still severely contaminated, 10 months after a government cleanup.

The tragedy of Thiaroye Sur Mer gives a glimpse at how the globalization of a modern tool — the car battery — can wreak havoc in the developing world.

As the demand for cars has increased, especially in China and India, so has the demand for lead-acid car batteries. About 70 percent of the lead manufactured worldwide goes into car batteries, which are also used to power TVs and cell phones in some areas.

Waves of lead poisoning

Both the manufacturing and the recycling of these batteries have moved mostly to the Third World. Between 2005 and 2006, four waves of lead poisoning involving batteries were reported in China. And in the Vietnamese village of Dong Mai, lead smelting left 500 people with chronic illnesses and 25 children with brain

damage before the government shut it down three years ago, according to San Francisco-based OK International, which works on environmental standards for battery manufacturing.

Thiaroye Sur Mer is a town of 100,000 where yearly rains leave people wading through knee-deep water inside their cement-block houses. A train track bisects the town and daily trains speed through just a few steps from homes. The ocean used to supply a livelihood, but fishing hasn't been good the past few years. Young men have increasingly taken to trying to sneak into Europe aboard large canoes with outboard motors.

For years, the town's blacksmiths extracted lead from car batteries and remolded it into weights for fishing nets. It's a dangerous, messy process in which workers crack open the batteries with a hatchet and pull small pieces of lead out of skin-burning acid. The work left the dirt of Thiaroye dense with small lead particles.

Then the price of lead climbed, and traders from India came and asked about the dirt. They offered to buy bits of lead by the bag for 60 cents a kilogram, says Coumba Diaw, a middle-aged mother of two. So Diaw dug up the dirt with a shovel and carried bags of it back to her house. There, she sat outside and separated out the lead with a sifter. It took just an hour of sifting to make what she did in a day of selling vegetables at the market. She kept her two daughters nearby as she worked.

Women all over the neighborhood did the same, creating dust clouds of lead.

Then sicknesses started. The deaths came, one after another, over the five months from October 2007 through March 2008.

At first, people thought it was malaria or tuberculosis. Doctors at the local health clinic kept seeing the same symptoms with no response to treatment and started running more tests.

That's when Demba Diaw's 4-year-old daughter died.

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First she got a bad fever. Then she started vomiting. Diaw, a 31-year-old teacher at an Islamic school, thought it was malaria and took her to the hospital. The next day she was dead.

"The doctors couldn't say what she died of," says Diaw. His voice rises as he talks, and he spits out the words. He shows a picture of his daughter that he carries with him, and the plastic casing of a lead battery.

Diaw started talking to other parents whose children had the same symptoms. They were spending more money each day for more lab tests but not getting any answers. So he called the local media and held a news conference to demand an investigation.

At about the same time, the hospital confirmed lead poisoning. The World Health Organization was called in.

Tests ordered

The government ran blood tests on relatives of the dead children. Their mothers and siblings were found to have lead levels of 1,000 micrograms per liter. Just 100 micrograms per liter is enough to impair brain development in children.

A block from Diaw's house, the illness struck his niece, two-year-old Raminatou, the child Coumba Diaw carried on her back.

"It started with a fever. Her skin was hot. She would tremble and her eyes would roll back. She would drool. Her legs would splay out. She cried all the time," says Coumba Diaw. She speaks without emotion, recounting the events as if it all happened to someone else.

Diaw rushed her daughter to the hospital. Now that they knew the problem, they saved Raminatou.

The cleanup started in March, but was not extensive, residents say. On a side street in Thiaroye Sur Mer, a man points out a pile of sacks full of lead pellets that have sat against a wall for months through the rainy season. He says someone ditched the sacks there when they heard the lead was dangerous, and they were missed by the cleanup operation.

About 950 people have been continuously exposed to lead dust in the neighborhood, and many children show signs of neurological damage, according to WHO. The sifting tossed lead particles into the air where people could inhale it.

Regulation and oversight

In richer countries, recycling of lead batteries is regulated. Most U.S. states require anyone who sells lead-acid batteries to collect spent ones and ship them to recycling plants licensed and regulated by the Environ-

mental Protection Agency. Europe has similar oversights.

"It's when you get to Third World countries where you don't have regulations or attempts to control the movement of this product that you see these kind of tragedies occurring," says Maurice Desmarais, executive director of Battery Council International, a U.S.-based trade group.

Although North America and Europe continue to be the world's biggest buyers of cars, fewer and fewer car batteries are made there. Manufacturing has moved where labor is cheaper and environmental protections regulations are more lenient, or at least more leniently enforced.

"There's not a developing country where this isn't happening," says Perry Gottesfeld, of OK International.

Most in Thiaroye say they will never go back to sifting dirt for lead. But some still don't believe it is dangerous.

Mohamadou Diagne, a scrap metal trader, says he hasn't bought any lead since the poisonings became known. But he says he grew up cracking open batteries for lead, and he hasn't been poisoned. He has not had his blood tested for lead.

"My father is 75. He's never had any problems," he says.

Poisoned earth

An Indian buyer about a half-mile away from the town still has a large yard full of battery casings and sacks of lead pellets. The company used to buy some of the lead dug up in Thiaroye.

Workers there confirm that they ship the lead and batteries out of the country but won't give further details. The owner declined a number of requests for an interview.

The government has stripped the top layer of dirt from the roads with earthmovers and is paying the hospital bills of anyone sickened by the lead. That's at least 55 children to start, and likely more once the testing is finished.

The World Health Organization says there's still so much lead in the ground that the area is toxic. The government wants to relocate the entire neighborhood. But Demba Diaw says the government just wants to profit from the lead in their earth, and Coumba says this is her only home.

Like many other families, the Diaws are too poor and too rooted to move. So they will stay where the lead poisons the earth.

URL: <http://www.msnbc.msn.com/id/28484477/page/2/>



FEATURED ARTICLES

Toxic Lead is Still Robbing our Children of Brain Power

By Peter Montague

Rachel's Democracy & Health News #917, July 26, 2007

[**Rachel's introduction:** The government and the media give the impression that the problem of toxic lead has largely been solved. Unfortunately, this is not the case. Millions of children are still having their IQs reduced by exposure to lead.]

In a front-page story June 22, the New York Times reported that a first-born child typically has a 3-point IQ advantage over any brothers or sisters born later.[1] The editors of the Times considered this information so important that they featured it in a second news story,[2] an op-ed commentary,[3] and four letters to the editor.[4]

Here is how the Times initially described the importance of a 3-point IQ advantage:

"Three points on an I.Q. test may not sound like much. But experts say it can be a tipping point for some people -- the difference between a high B average and a low A, for instance. That, in turn, can have a cumulative effect that could mean the difference between admission to an elite private liberal-arts college and a less exclusive public one." [1]

The Times did not mention it, but for some children the loss of 3 IQ points could mean the difference between a high D average and a low C, with a cumulative effect that could mean the difference between staying in school and dropping out.

In other words, a 3-point loss of IQ may be crucially important in every child's life, not just those headed for the Ivy League.

The U.S. Department of Labor says 19 million jobs will be created in the next decade and 12 million of them (63%) will require education beyond high-school.[5] As the globalized economy puts U.S. workers under greater competitive pressure, workers are expected to survive by retraining themselves 2 or 3 times during their working years. In this new world, every IQ point takes on new importance.

Unfortunately, the loss of 4 to 7 IQ points is far more widespread among U.S. children than anyone has so far reported, except in obscure medical journals.

One of the main causes of widespread loss of IQ is the toxic metal, lead, which is a potent neurotoxin. This soft gray metal was widely used in paint, in leaded gasoline, in sealing "tin" cans, and in water pipes throughout most of the 20th century, and the residuals are still taking a toll today in the form of peeling paint, toxic house-dust in older homes, contaminated soil, and a measurable body burden in almost all our children.

The most common units of measurement for lead in blood are micrograms per deciLiter of blood (ug/dL). A microgram is a millionth of a gram and there are 28 grams in an ounce. A deciLiter is a tenth of a liter and a liter is roughly a quart. [6]

As lead in your blood goes up, your IQ goes down. And paradoxically the first few micrograms of lead are the most damaging.

As a child's lead rises from less than 1 ug/dL up to 10, he or she loses an average of 7 IQ points.[7,8,9,10] If lead continues rising from 10 to 20, another 2 IQ points get shaved off. The first 5 ug/dL reduce a child's IQ by about 4 points. [7,8,9,10]

According to the latest available data, 26 percent of all children in the U.S. between the ages of 1 and 5 have 5 to 10 micrograms of toxic lead in each deciLiter of blood [11] -- which corresponds to a loss of 4 to 7 IQ points.[7,8,9,10] The estimate of lead in blood was published in December 2003, covering the period 1988-1994. Average levels today are probably somewhat lower because the trend for lead in children's blood is downward.

Unfortunately this 26% average for all U.S. children masks a disproportionate effect among non-whites, who tend to live in families with low income and in older homes that may have peeling paint containing toxic lead.

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In the 2003 report, nearly half (47%) of non-Hispanic Black children ages 1 to 5 had blood lead levels in the range of 5 to 10 ug/dL, which corresponds to a loss of 4 to 7 IQ points. Nineteen percent of white children and 28% of Hispanic children fell in the same range.[11]

This means that exposure to toxic lead is still a huge problem in the U.S., robbing more than a million children each year of the intellectual potential they were born with. [12]

Unfortunately, there is widespread misunderstanding (and muddled reporting in the media) about this problem, due in no small part to confusing and contradictory policies set by the federal Centers for Disease Control and Prevention (CDC) and U.S. Environmental Protection Agency (EPA). State governments by and large just go along.

Prior to 1971, doctors only treated children for lead poisoning if they had more than 60 ug/dL.[13] At this level many children died, and those who survived had major permanent brain damage. Permanent damage from lead poisoning was well documented at least as early as 1943, but it wasn't until 1971 that the definition of "elevated" lead in children's blood was reduced to 40 ug/dL. By 1978, it was apparent that children were still being brain-damaged at 40 ug/dL, so the definition of "elevated" was reduced to 30. In 1985, the definition of "elevated" was reduced again, to 25, and in 1991 it was reduced again, to 10 ug/dL.[14]

In 2005, the Centers for Disease Control and Prevention (CDC) reaffirmed its 10 ug/dL "level of concern," using tortured logic. CDC first acknowledged that "there is no 'safe' threshold for blood lead levels." [15, pg. ix] In other words, CDC acknowledges that any amount of lead greater than zero causes some harm. CDC then says, "Although there is evidence of adverse health effects in children with blood lead levels below 10 ug/dL, CDC has not changed its level of concern, which remains at levels equal to or greater than 10 ug/dL.... If no threshold level exists for adverse health effects, setting a new BLL [blood lead level] of concern somewhere below 10 ug/dL would be based on an arbitrary decision," CDC says.[15, pg. ix]

In other words, since any amount of lead in blood greater than zero is harmful to children, then 10 is as good a number as any for defining where the problem begins. It's like saying automobiles are dangerous at any speed above zero, so setting the legal speed limit at 100 mph is as good as any other number.

So this is where it stands today: CDC says children are being harmed at levels below 10, yet CDC retains its official "level of concern" of 10 because picking any number below 10 (except zero) would be arbitrary. [15]

It gets worse: CDC says 10 ug/dL is the "level of concern" but finding 10 ug/dL in a child's blood still does not trigger official attention to that individual child. When a community finds 10 ug/dL in some of its children, it is supposed to take community-wide action to prevent lead exposures -- urging homeowners to wet-mop to reduce household dust, for example. Yes, this will help, but it is an adequate response?

By current CDC guidelines, a child must have 15 ug/dL before the local health department is supposed to initiate "case management," visiting the home, for example, to discuss ways to reduce exposure. If a child has 20 ug/dL or more, then serious intervention may be initiated -- forcing homeowners or landlords to remove sources of lead (such as old paint) from the home, for example.

But here's the worst news: CDC's "level of concern" is widely interpreted as a "safe" level by other government agencies. It was never intended as such. As one lead researcher has written, "Although the CDC's intervention level is not a statement concerning the level of childhood blood lead considered 'safe' or 'acceptable,' it has been interpreted as such by the general public and by federal regulatory agencies." [16] And, we should add, by state agencies as well.

For example, U.S. Environmental Protection Agency (EPA) has never set a ["reference dose"](#) for inorganic lead, as it has for several other neurotoxins about which far less information is available. EPA uses CDC's logic: it cannot find a level of exposure to lead that is "likely to be without deleterious effects during a lifetime" of exposure. So it ignores the problem by refusing to set a reference dose. [16]

As you can probably gather from this description, CDC guidelines do not flag 10 ug/dL as a serious threat to children. And that is the way it is understood across America, as a recent scan of newspapers revealed [with my comments inside square brackets]:

** The Wasau (Wisc.) Daily Herald reported May 27, 2007, that in Marathon County, Wisconsin, 1617 children were tested "with 43 registering levels higher than 10 micrograms per deciliter of blood." [With only 43 out of 1617 affected, the problem doesn't sound very serious, does it?]

** The Arizona Daily Star reported Feb. 4, 2007 that only 1 percent of children in Pima County have "elevated blood-lead levels." [Only 1 percent? Sounds like the

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illness, or unique symptom complex in deployed Gulf War vets.

The Worldwide Diabetes Epidemic

A half century ago, during the early years of the Cold War when I went to medical school, diabetes was not a common disease. Now in the 21st century it is common to hear of diabetes as an impending epidemic. Certainly the statistics bear this out.

Currently, 7% of Americans have diabetes (17 million). In addition, a Los Angeles Times front-page report on 16 September 2006, claims that there are more than 41 million Americans with abnormal blood glucose abnormalities, "that indicate they may soon develop diabetes." In Puerto Rico (where DU was tested) 10% of the population has diabetes.

The Centres of Disease Control (CDC) in Atlanta declares that "unless Americans change their ways," 33% of the babies born this year will be diabetic by the year 2050. Also by 2050 there are expected to be 45 million diabetics in the US. A vet support group, Veterans with Diabetes International, says there are 143 million people worldwide with the disease, and 300 million people are expected to have diabetes in 2025.

Type-1 diabetes, most often seen in children and young adults, comprises 5-10% of the cases. Type-2, a metabolic disorder resulting from the body's inability to make enough or properly use insulin, frequently strikes adults, especially obese adults. This group comprises 90% or more of diabetics. The CDC predicts that Type-2 diabetes will increase 165% by 2050. People with Type-2 diabetes are also twice as likely to get pancreatic cancer.

Thirty-four years after the Vietnam war ended, the DoD finally presented the "strongest evidence" that Type-2 diabetes can be connected to Agent Orange. Eighteen million gallons of this plant defoliant and poison was sprayed over Vietnam by the US military. It is now known to cause cancer and birth defects. Starting in the year 2002 diabetes is now recognised as a "service-connected" disease for all Vietnam vets. At present, diabetes is not service-connected for Gulf War vets.

Nine percent of Vietnam vets have Type 2 diabetes. There is no current evidence that Gulf War vets have a heightened incidence of diabetes, but I could find no solid research to confirm or deny this. Perhaps in one or two more decades government scientists will discover a connection to DU.

The common causes of diabetes are thought to be obesity, poor diet and lack of exercise. Leuren Moret believes the

cause of the new epidemic is more sinister: namely the increasing levels worldwide of depleted uranium in the atmosphere, combined with emissions from the proliferation of nuclear power plants.

Unlike government scientists, Moret says DU is very, very, very nasty stuff; and that diabetes is an immediate response to DU, in contrast to the decades it can take for uranium to produce radiation-induced cancer. Although she cannot prove it, she is the first scientist to strongly suggest a connection between the new worldwide diabetes epidemic and DU.

Moret insists the medical profession has been active in the cover-up of low level radiation from atmospheric testing and nuclear power plants. I have been unable to verify this, but it is consistent with the passive role the health profession took during the Cold War nuclear testing in the US (more later). She has also spoken about medical professionals in hospitals who were threatened by government officials with \$10,000 fines and jail time if they talked openly about the returning Iraq war soldiers and their medical problems. This could explain the paucity of reports in the scientific literature regarding vets exposed to DU and their war-associated illnesses.

Moret also says reporters have been prevented access to more than 14,000 medically evacuated soldiers from the current Iraq War, brought back to Walter Reed Hospital near Washington, DC. To learn more about Leuren Moret and her research, Google: Leuren Moret + videos. In addition, she appears in the recent documentary film *Beyond Treason*, detailing the horrific effects of depleted uranium exposure on American troops and Iraqi civilians in the Gulf region in 1991.

Is Depleted Uranium Safe?

Ronald L. Kathren is Professor Emeritus at Washington State University and a leading authority vouching for the safety of DU. Unlike Major Rokke, he does not appear to have ever served in the military or to have come in contact with DU on a battlefield. Nevertheless, his opinions carry a lot of weight in the scientific world.

Kathren does not dispute the fact that military personnel who may have had contact with DU are suffering from various illnesses, but he believes that exposure to uranium is very unlikely to be the cause.

Writing for the Portland Independent Media Centre on 3 July 2005, he declares: "Health physicists are deeply concerned with the public health and welfare, and as experts in radiation and its effects on people and the environment, are quite aware that something other than exposure to uranium is the cause of the illnesses suffered by those who have had contact with depleted uranium from

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munitions. A truly enormous body of scientific data shows that it is virtually impossible for uranium to be the cause of their illnesses. Despite this body of scientific data to the contrary, misguided or unknowing people continue to allege that the depleted uranium, and specifically the radioactivity associated with the depleted uranium is the cause of these illness. This is indeed unfortunate, for health physicists and other scientists and physicians already know that depleted uranium is not the cause of these illnesses and thus any investigations into the cause of these illnesses should focus on other possible causes. If we are to offer any measure of relief or solace to these suffering people, and to gain some important additional knowledge of the cause of their illness, we should not waste our valuable and limited energies, resources and time attempting to point the finger at depleted uranium as the culprit, when it is already known that uranium is almost certainly not the cause of the problem."

<http://portland.indymedia.org/en/2005/07/320739.shtml>

"No Level of Radiation is Safe for Humans"

As a physician it is inconceivable to me that government-approved experts like Kathren can so quickly dismiss DU as safe and harmless, particularly when on 29 June 2005, a National Academy of Sciences panel in Washington DC has found that no level of radiation is safe for humans.

The panel concluded that "any dose of radiation, no matter how small, can induce cancer. Exposure to radiation is becoming more and more likely for most people because of the growing use of radiation in medicine. The new findings could lead to changes in medical practices and the levels of radiation allowed at former nuclear sites." The panel also contradicted the often heard dictum of some government pro-nuclear scientists that "a little radiation is good for you."

The idea that low doses of radiation are safe is the myth that allowed extensive nuclear testing during the Cold War without a huge protest from every member of the human race. It is this myth that still allows DU weapons to be used on battlefields against "terrorists."

Historically, the proof of the danger of nuclear warfare was provided a decade ago by the publication of a US Congressional committee report authorised by President Bill Clinton and entitled, *The Human Radiation Experiments*. The report showed clearly that government scientists and physicians could not be trusted in their pronouncements regarding the safety of nuclear weapons. Even worse was the documentation of countless covert and secret radiation experiments conducted on unsuspecting citizens during the Cold War "in the name

of science." Unfortunately, this horrific 1996 report did not deter Clinton from allowing DU weapons in Kosovo in 1999, nor did it deter President George W. Bush, who authorised their use again in Afghanistan and Iraq.

Anyone with Internet access can simply Google "the human radiation experiments" for details of the shameful science surrounding nuclear testing and the disastrous health effects on unsuspecting American citizens.

In 2001, a half century after extensive nuclear weapons testing in the American West, the US National Cancer Institute was finally forced to reveal its finding that bomb testing in Nevada, which spread radioactive fallout across every state of the Union, has caused at least 15,000 cancer deaths and up to 212,000 non-fatal thyroid cancers. John LaForge of Nukewatch.com reminds us that "the 67 bomb tests blown off between 1946 and 1958 were said at the time to be safe."

Money, Power and Depleted Uranium

Who is profiting from this global uranium nightmare? In *The Enemy Within* (1996) Jay Gould reveals that the British Royal family privately owns investments in uranium holdings worth over \$6 billion through Rio Tinto Mines, an Anglo-Australian company, which is the world's largest mining company with more than 60 operations in 40 countries. Africa and Australia are two of the main sources of uranium in the world; and the Rothschilds control uranium supplies and prices globally.

Gould notes that nuclear radiation has brought dramatic increases in breast cancer mortality, especially in communities 50 to 100 miles downwind from nuclear reactors. Book reviewer Donna Lee writes: "The *Enemy Within* has enough scientific data to address those bureaucrats who deny that living near a nuclear reactor is a hazard to one's health. It also includes enough direct, clear prose to convince me, a breast cancer survivor, that I grew up during the Cold War as an unknowing guinea pig, further victimised by the politics of suppression and denial."

Lee continues: "After reading the book, however, I am bothered by one persistent question. I was born and raised and continue to live in San Francisco, California, which has the highest incidence of breast cancer in the world. The *Enemy Within* concerns itself with breast cancer mortality rates, which are highest in the communities around New York City. San Francisco isn't within 100 miles of a nuclear reactor and it isn't even mentioned in the book. If low level radiation explains clusters of breast cancer throughout the US, what explains us?"

Actually there was a nuclear power plant located in Sacramento, less than 100 miles from San Francisco, which became active in 1975. Gould probably did not include this

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in his 1996 book because the Rancho Seco Nuclear Power Plant was forced to shut down its operations in 1989, due to a public outcry and a referendum.

David Bradbury says child cancer rates on Vieques Island have soared 250% above the Puerto Rican national average in the last thirty years. In his 2005 documentary film, *Blowin' in the Wind*, the provocative Australian filmmaker and two-time Academy Award nominee also provides some answers regarding the huge financial interests involved in uranium production and DU weapons. Australia provides one-third of the world's uranium supply, and Bradbury reveals a secret treaty that allows the US military to train and test its DU weaponry on Australian soil. He exposes plans to extract over \$36 billion from uranium mines over the next six years, and shows the finished construction of a 1,000 mile railway from the mining area to a port on the north coast of Australia to transport the ore.

The railway project was built by Texas-based Halliburton Company. In 1995 US Vice President Dick Cheney was CEO of that company. The film maker says, "The Queen's favourite American buccaners, Cheney, Halliburton, and the Bush family, are tied to her through uranium mining and the shared use of illegal depleted uranium munitions in the Middle East, Central Asia and Kosovo/Bosnia. The major roles that such diverse individuals and groups as the Carlyle Group, George Herbert Walker Bush, former Carlyle CEO Frank Calucci, the University of California managed nuclear weapons labs at Los Alamos and Livermore, and US and international pension fund investments have played in proliferating depleted uranium weapons is not well known or in most instances even recognised, inside or outside Australia. God Save The Queen from the guilt of her complicity, in turning Planet Earth into a 'Death Star'."

Depleted Uranium and the War on Terror

There is nothing more terrifying than the thought of exposing all life forms on the planet to DNA-altering radiation in order to provide us with "safety" and "democracy." It is truly diabolic to think that the destruction of the planet is now occurring with so few people comprehending what is going on - and still fewer people taking an active stand against this tragedy. It is apparent that most of the world's political and spiritual leaders, as well as scientists, physicians, lawyers, and health professionals do not care about the dangers of DU weapons and other forms of nuclear energy. If they cared we would certainly be hearing and reading about it on television and in the major media.

As a researcher and writer over the past few decades, I have focused on the man-made origin of AIDS and the little-known bacterial cause of cancer, paying little attention to nuclear radiation. However, in 2001, I wrote an article entitled "The Human Radiation Experiments: How Scientists Secretly Used US Citizens as Guinea Pigs During the Cold War", which was published in the September-October 2001 issue of *New Dawn*, and is posted on several websites. But I must admit I was unaware of the serious planetary problems posed by DU. I simply assumed that no civilised and peace-loving country would ever be reckless and heartless enough to use these radioactive weapons. How wrong I was!

What I find most pathetic and inconceivable is that we have learned nothing from the detrimental health effects unleashed by the atomic bombing of Japan and nothing from the nuclear testing horrors of the last half of the 20th century. Instead we continue to contaminate vast areas of the world with radiation we don't know how to get rid of.

I remember as an eleven year-old boy how jubilant everyone was by the atomic attack on Hiroshima and Nagasaki in August 1945, which brought the war to a rapid end. A half century later my Caucasian niece married a Japanese-American man. Shortly after the wedding she noticed a lump in his neck, which proved to be thyroid cancer. His mother was a child when she lived 50 miles outside of Hiroshima when the bomb was dropped. Decades later, in her forties, she was diagnosed with thyroid cancer, undoubtedly due to the radiation fallout. The doctors considered the possibility that my niece's husband might have developed thyroid cancer because of radiation-altered and thyroid cancer-causing genes passed on to him by his mother. Of course the family wonders if their two young children will eventually also get thyroid cancer. Who would have thought that the atomic bombing of Japan in 1945 would have a cancerous effect five decades later on my family living in California?

A few years ago I developed a thyroid nodule, which was biopsied and proved non-cancerous. As a teenager in the 1950s I received "superficial" radiation treatments for acne at the recommendation of a well-known New York dermatologist, a treatment that was later banned because of its potential to cause thyroid cancer.

It is almost a cliché to remind people that "all of us are connected." The fallout from DU and nuclear energy now binds us all together in an increasingly radioactive planet. No one is immune from the deleterious effects of radiation, and no one knows how to clean it up.

What can we do about it? The only thing we can do is to stop the madness immediately. However, power and greed and politics and religion make that highly unlikely.

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We have met the perpetrators of the new radiation-induced "war on terror." And, sadly, it is us.

Dr. Alan Cantwell is a retired dermatologist and the author of five books on the man-made origin of AIDS and the infectious origin of cancer, all published by Aries Rising Press. (www.ariesrisingpress.com)

<http://www.rense.com/general75/depp.htm>



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Lead and aluminum are other common heavy metals have also been shown to dramatically increase the toxicity of mercury. Interesting also is that lead is the final end product of the step-by-step radioactive decay of uranium. It would not be far fetched to imagine uranium and lead having very similar chemical characteristics though uranium is twice as dense.

Heavy metals are not the only trigger invoking the acceleration of diabetes. Dr. Lisa Landymore-Lim in her book *Poisonous Prescriptions* explains clearly how many drugs used by the unsuspecting public today are involved also in the onset of impaired glucose control and diabetes. She explains using the example of the drugs streptozocin, and alloxan, both used in diabetes research to make lab rats diabetic, and in Vacor, a rat poison known to cause insulin dependent diabetes in humans. Allopathic medicine has to face up to the fact that many drugs, including most surprisingly antibiotics which includes penicillin, as well as an entire host of others, causes changes in the beta cell and/or insulin function (See *Chemical Causes of Diabetes* on the IMVA site).

'Thiol poisons, especially mercury and its compounds, reacts with SH groups of proteins which lead to the lowered activity of various enzymes containing sulfhydryl groups. This produces a series of disruptions in the functional activity of many organs and tissues of the organism' - Professor I.M. Trakhtenberg, Russia.

It is through mercury's attack on these sulfide bonds (SH) that mercury is able to change the biological properties of proteins and change important physiological functions. What few doctors and health officials recognize is that chemicals and radiation combine to act on the very same cellular enzyme pathways. Lead is no slouch in this area either. The interaction of lead with sulfhydryl (SH) sites causes most of its toxic effects, which include impaired heme synthesis, inhibition of erythrocyte Na/K ATPase,

diminished RBC glutathione, shortened RBC life span, impaired synthesis of RNA, DNA and protein and impaired metabolism of vitamin D. Lead may also affect the body's ability to utilize the essential elements calcium, magnesium, and zinc

One type of contamination reinforces and strengthens the other, so medical treatments need to simultaneously address both chemical toxicity and radiation poisoning. Exposure to radiation causes a cascade of free radicals that wreak havoc on the body. Radiation also decimates the body's supply of glutathione, which allows free radicals to run rampant through our tissues and organs. These free radicals are destructive and are one of the most fundamental causes of disease. So we need a broad full spectrum chelator and antioxidant that is certified for both uranium and mercury and a list of other heavy metals and toxins. There are also targeted natural chelation formulas on the market that work well at eliminating uranium in addition to mercury, that are not so complete but fit into a total detoxification and chelation program. Importantly, we do not want any medical or healing substance to add its own toxicity to the cesspool of chemicals already present in the body and blood stream.

There are three things that determine the toxicity of radioactive materials:

Chemical effects – Uranium is chemically very toxic.

Radioactive effects (includes half-life and energy released) - One gram of DU (1/20th of a cubic centimeter) releases 13,000 alpha particles a second. One alpha particle can cause cancer under the right conditions and certainly it has the capacity to wreck havoc in beta cells and everywhere else.

Particle size - in the nanoparticle range (diameter of 0.1 microns or smaller). The particulate effect (non-specific catalyst or enzyme) is far more biologically toxic than the first two effects. This is why DU is so devastating (See extensive notes on this in the reference section).

Type-two Diabetes is an increasingly prevalent disease in the world, especially the United States, where the number of new patients grew 49% between 1991 and 2000.

The Chernobyl incident was a major humanitarian disaster, which has resulted in a plethora of health problems that are still far from being fully recognized. Most studies analyzing the medical consequences of this catastrophe have so far focused on diseases such as thyroid cancer, leukemia, immune and autoimmune pathology, even though an increase in the incidence of Type 1 diabetes mellitus, a disorder involving the

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immune system, was observed within the residential population of Hiroshima, among survivors of the atom bomb detonation. Studies have also shown that thymectomy and a sub-lethal dose of gamma radiation induces Type 1 diabetes in rats.

Dr. Chris Busby analyzed bomb crater samples and an air filter from an ambulance used in Beirut in July during the Israeli attack on Lebanon and found not only DU, but also that it was enriched with U235. The US sent the DU bombs to Israel two years ago, which was all over in the US media, and more in July when Israel ran out of them.

Leuren Moret, Livermore Nuclear Weapons Lab whistleblower, predicts that we can expect the use of depleted uranium weaponry by Israel in the recent aggression against Lebanon will continue to add to increasing diabetes in the region as well as globally.

And behold, alarming news is coming in from northern Israel in the wake of their use of depleted uranium in the recent war in Lebanon. In recent months a sharp increase has been noted in the number of new patients suffering from juvenile diabetes in the north. This is reported by the juvenile diabetes department at Ziv Medical Center, Safed. The staff of this department still has no numerical data on the dramatic increase in the number of new patients, since they continue to arrive at the hospital every day.

"The children who have come to us over the past weeks live in Safed and other communities in the Galilee-populations that have not shown such a high incidence of the disease in the past," said Dr. Orna Dali-Gottfried, director of the department of pediatrics, juvenile diabetes and endocrinology at the hospital. The truth seems to indicate that American depleted uranium munitions nuked both Israel and Lebanon.

Researchers at the Paediatric Hospital A. Meyer, Florence, Italy studied this question by assessing the incidence of the disease in children in Gomel, Belarus, in the years subsequent to the Chernobyl disaster. The results of the study seem to confirm the hypothesis of the influence of environmental pollution subsequent to the Chernobyl accident can cause diabetes.

Mass screening for diabetes mellitus has been conducted on 64,000 - 113,000 atomic bomb survivors resident in Hiroshima City since 1961. From 1971 to 1992 a 2.7-fold increase in the prevalence of diabetes mellitus was observed in males and a 3.2-fold increase in females.

Liquidators of the aftermath of the Chernobyl accident (LCA) who had worked within the 30-km zone for not more than 3 months in 1986, and early in the year 1987, were examined in 1988-1992 and again in 1997-1998. Hyperinsulinemia was recordable in these workers with normal and abnormal body mass index for the space of 3 to 12 years after the accident. Hyperinsulinemia, as the researchers saw it, was related to direct or indirect action of irradiation because those persons with prior acute psychogenic stress and healthy people have been found to be free from hyperinsulinemia. The possibility cannot be ruled out that hyperinsulinemia is a predictor of increased body weight gain and obesity in these workers.

We have a significant and documented increase in the incidence of Type-1 diabetes in children and adolescents after Chernobyl, in the radioactively contaminated area of Gomel compared to Minsk (Heinrich Heine, University Dusseldorf, Germany).

Dr Chris Busby, who has extensively researched the low-level radiation threat, and is the scientist who revealed vastly increased radiation levels over England after the last attack on Iraq, has made a link between everyday radiation exposure and a range of modern ailments: "There have been tremendous increases in diseases resulting from the breakdown of the immune system in the last 20 years: diabetes, asthma, AIDS and others which may have an immune-system link, such as MS and ME. A whole spectrum of neurological conditions of unknown origin has developed."

According to Moret, it won't take more than two days for the uranium particles to reach India from Iran. Egypt, the Middle East, Central Asia and Pakistan would also be affected.

Scientists may be seriously wrong in their idea of just how much increased background radiation the human body can withstand without long-term effects. Public health officials across the board tend to grossly underestimate the dangers. Medical officials are out there claiming, as usual, that toxic substances are actually good for your children. They say that about mercury and they say that about radiation.

Along with the pancreas, insulin receptor sites are vulnerable to chemical poisoning like any other part of the body. Perhaps these aspects of human physiology are even more sensitive and that is why we are seeing exploding rates of diabetes.

Dr. Herman Muller, who has received a Nobel Prize for his work, has shown how the human race's continuous exposure to so-called 'low-level' radiation is causing a gradual reduction in its ability to survive, as successive generations are genetically damaged. "The spreading and accumulation of even tiny genetic mutations pass through family lines, provoking allergies, asthma, juvenile diabetes, hypertension, arthritis, high blood cholesterol conditions, and muscular and bone defects."

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FEATURED ARTICLES

The Dangers of Aluminum Toxicity

By Victoria Abreo

BellaOnline Alternative Medicine

Even though aluminum is not considered to be a heavy metal like lead, it can be toxic in excessive amounts and even in small amounts if it is deposited in the brain. Many of the symptoms of aluminum toxicity mimic those of Alzheimer's disease and osteoporosis. Colic, rickets, gastrointestinal problems, interference with the metabolism of calcium, extreme nervousness, anemia, headaches, decreased liver and kidney function, memory loss, speech problems, softening of the bones, and aching muscles can all be caused by aluminum toxicity.

Aluminum is excreted by the kidneys, therefore toxic amounts can impair kidney function. Aluminum can also accumulate in the brain causing seizures and reduced mental alertness. The brain is normally protected by a blood-brain barrier, which filters the blood before it reaches it. Elemental aluminum does not pass easily through this barrier, but certain compounds contained within aluminum, such as aluminum fluoride do. Interestingly, many municipal water supplies are treated with both aluminum sulfate and aluminum fluoride. These two chemicals can also combine easily in the blood. Aluminum fluoride is also poorly excreted in the urine.

When there is a high level of absorption of aluminum and silicon, the combination can result in an accumulation of certain compounds in the cerebral cortex and can prevent nerve impulses being carried to and from the brain properly. Long term calcium deficiency can further aggravate the condition. Workers in aluminum smelting plants on a long term basis, have been known to experience dizziness, poor coordination, balance problems and tiredness. It has been claimed that the accumulation of aluminum in the brain could be a possible cause for these issues.

It is estimated that the normal person takes in between 3 and 10 milligrams of aluminum per day. Aluminum is the most abundant metallic element produced by the earth. It can be absorbed into the body through the

digestive tract, the lungs and the skin, and is also absorbed by and accumulates in the body's tissues. Aluminum is found naturally in our air, water and soil. It is also used in the process of making cooking pots and pans, utensils and foil. Other items such as over the counter pain killers, anti-inflammatory products, and douche preparations can also contain aluminum. Aluminum is also an additive in most baking powders, is used in food processing, and is present in antiperspirants, toothpaste, dental amalgams, bleached flour, grated cheese, table salt, and beer, (especially when the beer is in aluminum cans). The biggest source of aluminum, however, comes from our municipal water supplies.

Excessive use of antacids is also a common cause of aluminum toxicity in this country, especially for those who have kidney problems. Many over the counter type antacids contain amounts of aluminum hydroxide that may be too much for the kidneys to handle properly.

So, what can we do to prevent aluminum toxicity from happening to ourselves and our families?

1. Eat a diet that is high in fiber and includes apple pectin.
2. Use stainless steel, glass, or iron cookware. Stainless steel is the best choice.
3. Beware of any product containing aluminum or dihydroxyaluminum.
4. A hair analysis can be used to determine levels of aluminum in the body.
5. Research has shown that the longer you cook food in aluminum pots, the more they corrode, and the more aluminum is absorbed into the food and hence into the body. Aluminum is more readily dissolved by acid forming foods, such as coffee, cheese, meat, black and green tea, cabbage, cucumbers, tomatoes, turnips, spinach and radishes.
6. Acid rain leeches aluminum out of the soil and into drinking water.

[The Dangers of Aluminum Toxicity - Alternative Medicine](#)



Chemtrails and Aluminum: Harm Heart, Lungs And Plants

By Ted Twietmeyer

January 13, 2006

Chemtrails which are known to contain heavy metals such as barium oxide and aluminum oxide, are known to be a bigger problem than once thought. Others have researched chemtrails at great length, but may not have known about the negative effects on ecology, the environment and human beings which have recently been discovered. This essay is meant to create awareness, not panic.

Have you ever been standing at a gas station pump, waiting for your vehicle to fill up out in the country in what you thought was clean, fresh air? Did you also notice the top surface of the pump housing may have been covered with rough grey dust? Much of that material can be from chemtrail fallout from aluminum and barium oxide. What goes up, must come down. And all of us are breathing it. Sickness almost always visits communities within a 1-3 days after the spraying has taken place. Headaches, coughs that won't go away, sore throats and head and upper chest congestion are not uncommon. Your body does not want this metal embedding itself in your respiratory tract. It becomes an irritant.

Recent research shows that aluminum oxide which is a heavy metal, can do far more damage to human beings than once thought. The metal can also affect plants, and is far more insidious than once thought.

EFFECTS OF ALUMINUM OXIDE ON HEART AND LUNGS

A paper written by Wardle, Lee, Akester and Braithwaite at Thiokol Corp. warns of hazards from aluminum oxide nanoparticles. In their paper they express concern that epidemiological studies suggest an association between inhaled ambient particulate material and adverse cardiopulmonary (heart and lungs) effects. The mechanisms related to this toxicity are still unclear. Their paper shows methods to control ultra-fine particles, to limit inhaled nanoparticles in humans.[1]

EFFECTS OF ALUMINUM ON ECOLOGY

Is the government silent about the negative effects of aluminum? From the EPA website we read the following about acid effects and aluminum. The 22 page paper contains numerous references to scientific papers which are available at the EPA website:

"Acid deposition can occur in the wet or dry form and

can adversely affect aquatic resources through the acidification of water bodies and watersheds. Acidification of aquatic ecosystems is of primary concern because of the adverse effects of low pH and associated high aluminum concentrations on fish and other aquatic organisms."

"Aluminum which can be toxic to organisms, is soluble at low pH and is leached from watershed soils by acidic deposition. Acidification may affect fish in several ways. The direct physiological effects of low pH and high aluminum include increased fish mortality, decreased growth, and decreased reproductive potential. The mechanism of toxicity involves impaired ion regulation at the gill. Population losses occur frequently because of recruitment failure, specifically due to increased mortality of early life stages. Changes at other trophic levels may affect fish populations by altering food availability."

"By combining information on relevant water chemistry parameters (pH, aluminum, calcium), fish toxicity models, and historical and current distributions of fish populations in the lakes and streams included dominant source of acidity in 100 percent of the acidic lakes studied. This is in stark contrast to the West region, where none of the acidic lakes studied were dominated by acid deposition (notably, the sample size of lakes for this region was small to begin with).

For acidic streams, the Mid-Atlantic Highland region contains the greatest proportion of streams whose acidic inputs are dominated by acid deposition (56 percent). This contrasts with acidic streams of Florida, where the vast majority (79 percent) are acidic primarily due to organic acids, rather than acid deposition. By combining information on relevant water chemistry parameters (pH, aluminum, calcium), fish toxicity models, and historical and current distributions of fish populations in the lakes and streams included in the National Surface Water Survey (NSWS), NAPAP investigators estimated the proportion of water bodies with water chemistry conditions that are unsuitable for survival of various fish species."[2]

TRANSLATION: Aluminum causes problems with fish by interfering with the ability of gills to take oxygen from water. The aluminum works with acidic water to create a toxic environment for wildlife in lakes and streams. Aluminum is connected with ecological damage. And since it's a heavy metal.....

And who is spraying the aluminum oxide everywhere at high altitude? The government themselves. This is clearly another case of the left hand doesn't know what the right hand is doing...or perhaps it may not want to.

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Continued from page 14 – DNA and Mitochondrial

A Los Angeles Times front-page report on 16 September 2006 claims that there are more than 41 million Americans with blood glucose abnormalities "that indicate they may soon develop diabetes."

Researchers have even investigated in vivo the effects of a chronic exposure to DU on vitamin D(3) metabolism, a hormone essential in mineral and bone homeostasis. Anything that affects mineral homeostasis is going to be important in setting up conditions for diabetes. This is the first time that DU was seen to depress levels of vitamin D active form and vitamin D receptor expression, and consequently could modulate the expression of vitamin D target genes involved in calcium homeostasis.

This brings up the whole point of toxicity breaking down mineral content, something that is crucial in the process of becoming much more vulnerable to the chemical onslaught. Mineral content depletion is a basic cause in diabetes and neurological disorders, it leaves the body less able to cope and eliminate toxins on a daily basis. The depletion of normally high levels of zinc in the pancreas leaves a person more susceptible to beta cell destruction from heavy metals.

This is important to our medical review that concludes that toxic exposure to uranium is dangerous and readily provokes diabetes. In this case, we see that vitamin D deficiency predisposes individuals to type-1 and type-2 diabetes. Vitamin D deficiency has been shown to impair insulin synthesis and secretion in humans! Furthermore, epidemiological studies suggest a link between vitamin D deficiency in early life and the later onset of type-1 diabetes. In studies on diabetic mice, pharmacological doses of vitamin D have been shown to delay the onset of diabetes, mainly through immune modulation. Vitamin D deficiency is very much involved in cancer and in the outcome of treatments, so again we are seeing how closely tied together are cancer and diabetes.

According to Moret, depleted uranium is the "Trojan horse of nuclear war. It is the ultimate weapon of mass destruction." The pyrophoric nature of depleted uranium causes it to burn at very low temperatures. This makes it an ideal radioactive gas weapon. "Once it gets vaporized, microscopic particles of uranium oxide remain suspended and form the radioactive component of dust."

That Trojan horse has already come to roost in Great Britain, where radiation levels, weeks after the last war in Iraq started, went up by a factor of eight from normal levels. Dr. Busby calculated that some citizens in different parts of the country would have inhaled about 26 million particles of uranium oxide. Like Troy burning, the blood in Britain's citizens is smoldering.

Matt Hunt, science information manager at Diabetes UK, said: "By 2010, we estimate that the number of people with diabetes in the UK will increase by around 30 per cent to three million. Thirty percent in three years is a catastrophe."

Since the military use of DU is barely 15 years old, it is too early to know what the long term cumulative effects might be over the course of a century or more. We do know that uranium oxide particles are here to stay and that the invisible particles are suspended in the air, while some are rained out into the soil, the water, the dust; they become recycled back into the air, pervade the food chain; and often nobody can tell until years after the biological damage has been inflicted, that their health or existence has been jeopardized.

On average, three times more mercury is falling from the sky today than before the Industrial Revolution. In some places it is hundreds of times higher.

It's literally raining mercury and the government is still exploding uranium weapons on American soil but the CDC is only concerned about influenza and the bird flu.

Because of this they themselves are recklessly adding to our already heavy body burdens of mercury, insisting we get our yearly flu shot which has about 3,000 trillion atoms of mercury in it (25 mcgs).

Thanks to the continued promotion of mercury fillings by the American Dental Association and conventional dentists, consumers continue to be poisoned by this heavy metal that's intentionally placed into their mouths. Mercury is a well documented disaster in full progress but uranium is playing catch up ball. Together with lead, arsenic and cadmium, fluoride, pesticides and a list of chemicals that would fill up a book, our bodies are in the process of being overwhelmed by a sea of poisons. The tide is coming in fast but public health officials are asleep at the switch, offering only red herrings to keep us confused and away from the truth. There are no effective (allopathic) agents available to induce safe excretion of retained uranium (Dr. David Quig).

Dr. Dayna Kowata wrote, "I have noticed an upward trend in uranium toxicity in my pediatric patients and not just those with autism. The effected patients come from the Temecula/Murrieta area of southern CA. One of my autistic patients has had an extremely difficult time chelating this metal. We've had success with all other heavy metals but the uranium remains consistently high. We've used oral DMSA 'and EDTA."

Nobody with any sense is supporting uranium mining and the kind of activities that turns the earth into a toxic waste dump.

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Increasing levels of uranium in people's bodies changes the entire picture of chelation (removal of heavy metals from the body) thanks to the widespread use of depleted uranium weapons that are used abroad but tested at home.

These are the perfect weapons of mass destruction. We are threatened from many sources of ionizing radiation, including x-rays and local contamination from leaking nuclear facilities, but the threat from the use of depleted uranium armaments is truly frightening.

Uranium pollution is starting to compete with mercury as a major environmental contaminant. We ignore uranium now at great risk. The vast majority of doctors do not conceive of removing heavy metals as a form of treatment of disease, so the public is in trouble and is being let down by the medical profession. Most doctors do not even do a test for heavy metals and those that do are not yet aware of the looming problem with uranium contamination. Just ask your doctor about diabetes or autism and what is causing these terrible epidemics? The chances are about zero he or she will tell you that both mercury and uranium and some other poisons are at the heart of it.

Medical scientists have struggled to explain rising rates of cancers, childhood brain disorders, diabetes and neurological conditions in both young and old alike but have fallen short of any kind of understanding that will yield helpful answers. Something about modern living has driven a steady rise of certain maladies, but they have not been able to figure out what.

Uranium levels 54.6 times the U.S. standard were found in water supplies in a village near Icheon, about 25 miles northeast of Osan Air Base, according to a South Korean government environmental report. South Korea's Ministry of Environment said it was not ready last week to release its full uranium survey of 93 sites in South Korea, but it issued a news release on its findings. Uranium levels measured 1,640 micrograms per liter in Janpyeong-ri village near Icheon.

"A recent analysis of my hair ordered by my physician indicated a uranium level that is about five times the maximum reference range. How alarmed should I be with respect to this result? I am not exposed to uranium by occupational hazard, as I'm an office manager in a very clean environment. Past ingestion may have been the result of private well water, but I've not ingested any of this well water for six years now," reports one patient

Uranium does chelate with DMSA and EDTA chelators but NOT dramatically (Dr. Garry Gordon).

The best approaches to both mercury and uranium detox-

ification and chelation are natural ones. What is needed today is a radical shift in the community of doctors who do chelation mostly for neurologically damaged children and heart patients. Before even thinking of using anything that would officially bear the title of chelator of heavy metals, we and our doctors need to understand the nature of minerals (magnesium, selenium and zinc), and what they do for us to protect us from harm and what they do for us in helping us get better. The removal of heavy metals is impossible without minerals and without a full house of minerals our cells just cannot deal with the poison.

The very first thing one should do if interested in protecting themselves from the harmful effects of uranium and mercury is to start immediately with full mineralization. Iodine and magnesium are the best places to start but one should also be thinking of zinc and selenium and of course ALA. When considering children, it is helpful to know that both iodine and magnesium can be easily applied transdermally. Selenium also is vital and is the perfect antidote for mercury toxicity. Iodine is vital for the protection of our thyroid gland against radiation, but in reality, when we supplement properly with this, we are strengthened in ways unimaginable to modern medicine. The most important question of our times is: what is the safest most effective way to remove uranium, mercury and an army of other toxins in our and our children's bodies?

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<http://www.imva.info/>



Mercury Rising

By Katharine Mieszkowski

Salon.com
18 April 2005

Millions of fetuses whose mothers eat fish are being exposed to brain-damaging mercury. But critics charge the Bush administration's regulations are like bailing the ocean with a thimble.

When children in Dr. Kevin Brownogehl's practice suffer from learning disabilities or attention problems, the pediatrician wonders whether methylmercury in the fish their mothers ate before they were born is to blame.

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problem has been solved, doesn't it?]

** The Westerly, Rhode Island, Sun reported Feb. 3, 2007 that "In 2005, about two percent of 31,669 children screened in Rhode Island, or 621 children, showed an elevated lead count in their blood..." [Only two percent -- sounds like the problem is small.]

** In Fitchburg, Massachusetts the Sentinel & Enterprise reported Nov. 6, 2006, that childhood lead poisoning has dropped from 8.2 per 1000 children in 1998 to 2.7 per 1000 in 2005 (with "lead poisoning" defined as 20 ug/dL). [Sounds like the problem is small and under control.]

** The Denver Post reported April 29, 2007, "About 38 out of every 100,000 children under the age of 6 tested in Colorado in 2003-04 showed elevated levels of lead." [Only 38 out of 100,000? Sounds like the problem has been solved.]

** The Erie (Pa.) Times-News reported Dec. 3, 2006, "... the U.S. Centers for Disease Control and Prevention estimates that 310,000 children nationwide between the ages of 1 and 5 have blood lead levels of 10 micrograms per deciliter or greater. Ten micrograms per deciliter is the federal threshold for lead poisoning in children that can result in development, learning and behavior problems." [A wonderfully clear statement of the point I'm making -- 10 ug/dL is almost universally reported as a level below which there are no real problems.]

To be fair, several of these news stories quoted one individual or another (often a community activist) saying that levels of lead below 10 can cause problems in children -- but none of the stories mentions the number of children exposed at levels below 10. It's as if levels below 10 don't really matter. All the published numerical estimates are expressed in terms of CDC's official "level of concern" -- and all the published estimates make the problem appear small.

The habit of only reporting 10 ug/dL or more comes directly from CDC itself [17] and from state health departments, many of whom measure, but do not publish, data on lead in blood below 10 ug/dL. For example, here is how the New Jersey state health department presented its summary of lead in N.J. children in 2005 (the latest year for which N.J. data are available):

"While 191,788 (97.7%) children tested in New Jersey in FY 2005 had blood lead levels below the Centers for Disease Control and Prevention (CDC) threshold of 10 ug/dL, there were 4,547 (2.3%) children with a blood lead test result above this level." [18, pg. 7]

So in all of New Jersey, only 2.3% of children rise to the

level of concern defined by CDC. This is very different from estimating, for example, that about 140,000 kids younger than 5 in New Jersey have lost 4 to 7 IQ points because they have 5 to 10 ug/dL lead in their blood.[19]

Numerical data on how many children have lead levels below 10 ug/dL seem to be a closely guarded secret. A review of dozens of published reports on lead in children's blood since 1985 uncovered only one report that estimated the proportion of children in the U.S. with 5 to 10 ug/dL.[11] The federal government and many state governments collect this data -- but none of them publish it. They focus instead on the small number of children with more than 10 ug/dL, continuing the illusion that 10 or more is the only amount that matters.

How could a small amount like 5 ug/dL harm anyone?

How could such a small amount of lead -- 5 ug in each deciLiter of blood -- cause brain damage? One way to understand such a question is to ask about the environment in which our species, Homo sapiens, evolved. How much lead are humans accustomed to?

From modern studies, scientists know the relationship of lead in blood to lead in bones. So in 1992, a group of scientists measured lead in the bones of pre-industrial humans, for the purpose of estimating "natural background" (pre-industrial) levels of lead in blood. They concluded that the natural background level of lead in human blood is 0.016 ug/dL -- so 5 ug/dL represents a level 300 times as high as natural background.[20]

A 300-fold increase in a potent nerve poison seems certain to take its toll on humans so exposed, especially if they are exposed during early childhood, when their brains are developing rapidly.

Brain damage is not the only harm caused by lead at levels below 10 ug/dL. In 2004, CDC asked a panel of experts to evaluate and summarize the current scientific literature on adverse health effects associated with blood lead levels less than 10 ug/dL. [See the Appendix in footnote 15.]

They found that intellectual impairment -- brain damage -- was number one, but they also found:

** Reduced height and head circumference as blood lead levels rise above 1 ug/dL.

** Delayed sexual maturation. Two studies observed late puberty in girls with blood lead levels in the range of 2 to 5 ug/dL. This seems to indicate that lead is interfering with the endocrine (hormone) system.

** Dental caries (popularly known as "cavities" in teeth) were more likely to develop as a child's blood lead level rose from 1 to 3 ug/dL

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FEATURED ARTICLES

Host Response to Depleted Uranium (DU)

Rosalie Bertell, Ph.D., GNSH

International Institute of Concern for Public Health

November 2000

Whenever a new toxic material is introduced into the biosphere, it must be studied thoroughly with respect to: 1) The nature of the hazard; 2) The pathways to humans including the portal of entry into the human body; and 3) The host response.

My paper will deal primarily with the portal of entry into the human body and the expected host response. While uranium and depleted uranium wastes are not new toxins, the ceramic aerosol of DU produced in military activity is relatively new to civilian science.

THE HAZARD:

Uranium occurs naturally in about 3 ppm in rock in the earth crust. It is the decay product of plutonium, which was present in the beginning of our planet. Uranium occurs in rock formations with other radioactive elements, namely radium, thorium, lead, bismuth and polonium. One element in the decay chain, radon, is a gas with a short half-life. If there is no escape fissure in the rock, its decay products will remain as radioactive solids within the rock. Otherwise, they will be deposited on the ground as the radon gas travels in air, near the earth and in the direction of the wind, during its 3.8 day physical half life. In ordinary soil, unaffected by uranium mining and milling, one would expect to find more radioactive lead, bismuth and polonium than uranium.

In the process of uranium mining and milling, natural uranium is separated from the other radioactive elements (which are left as waste ore at the mine, and mill tailings at the mill). Uranium leaves the uranium processing facility as a yellow cake, technically triuranium octaoxide, U_3O_8 . Yellow cake involves a chemical change only, and the uranium in the molecule has the same isotopic composition as uranium in the natural environment. Compared with natural uranium in its natural state in soil or rock, yellow cake is about three hundred thousand times more concentrated.

In the normal course of events in the nuclear age, the

yellow cake is sent to an enrichment plant, where it is converted into uranium hexa-fluoride, UF_6 , and submitted either to centrifuge or gaseous diffusion technology to produce an enriched uranium, in which the U 235 isotope is more concentrated. The waste called depleted uranium or DU, from this process of enrichment for commercial nuclear fuel is generally about seven times in volume the enriched uranium product. There is an even greater amount of waste uranium when the enrichment is for nuclear weapons or nuclear research reactors.

Depleted uranium is the largest category of radioactive waste, next to the radioactive ore and tailings left at the mine and mill. Being more concentrated it is more radioactive. In general, natural uranium consists of 99.3% uranium 238 and 0.7% uranium 235; while depleted uranium consists of 99.7% uranium 238 and 0.3% or less uranium 235. Their chemical properties are the same. The depleted uranium waste from enrichment is reduced to uranium tetrafluoride and then reduced again to depleted uranium metal. In 1995, after the Gulf War, the USEPI (US Army Environmental Policy Institute) required that the U 235 content of depleted uranium be less than 0.3%. It is this waste metal that the military is now using to replace tungsten and lead in military ordnance.

In some cases, I understand that the US, instead of sending freshly milled yellowcake to the enrichment plant, sent uranium recovered by reprocessing of spent nuclear fuel rods at Hanford. This would have produced waste, depleted uranium, contaminated with small amounts of plutonium and neptunium, and perhaps fission products.

SPECIAL COMPLICATION WITH RADIOACTIVE MATERIAL EXPOSED TO HIGH TEMPERATURES:

With the dropping of the nuclear bombs on Hiroshima and Nagasaki, the complication of physical change in

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materials subjected to a high temperature fire was introduced. This same problem occurred with the Windscale fire, the Three Mile Island and Chernobyl explosions. We now must deal with the friction fire that occurs when a DU weapon impacts a hardened target. In this case, temperatures may exceed 3,000 degrees Centigrade, beyond the melting point of uranium. The aerosol created under the temperature and pressure conditions is a ceramic. It is very insoluble in body fluid.

The internal dose received by the populations of Hiroshima and Nagasaki has never been used as a basis of radiation exposure research, and no information on the health effects of internal contamination with ceramic radioactive particulates has been released to the public. (I do not know whether or not the military researchers calculated it.) The problem of internal contamination of atomic bomb survivors has not been openly discussed in professional circles. Basically the published atomic bomb research contains data on external exposure of a healthy survivor population. The research excluded internal exposure to ceramic radioactive particulates.

Among those who have been involved with trying to assist the Gulf War Veterans, only Dr. Doug Rokke, Health Physicist, and Dr. Asaf Durakovic, Nuclear Medicine, have been potentially privy to classified military information on radiation exposure. There are a number of other persons who have written chapters in **Military Radiobiology** [Ref. 1], the military textbook, who have not yet offered to help. Dr. Durakovic wrote the Chapter on internal contamination. [Ref. 2]

While I have FBI clearance for reading the military radiobiology materials, since I have served as a consultant to the US Nuclear Regulatory Commission, but have no direct access to the military data base. I, together with other competent researchers who are willing to assist the people exposed to DU, must build up the knowledge from civilian sources and experience. Hence, we need to collect a database of DU exposed persons in order to understand and document the whole picture of health damage. This is essential if we are to communicate the problems to civilian legislators or judges.

The Rand Report [Ref. 3] depended heavily on civilian experience, especially with uranium mining and milling. While they quoted military manuals, they failed to discover the text book(s) called **Military Radiobiology**. For many reasons theirs was an inappropriate choice of research documents. The second source of information was that recently produced by the US National Academy of Science [Ref. 4]. It is much more professionally done. You will notice, however, that it made frequent use of the

inadequate and insufficient evidence to conclude whether or not there would be health damage. They castigated the military for withholding vitally needed information, and while their references are more extensive than those of the RAND Report, they also failed to consult **Military Radiobiology**. This withholding of health information on the part of the military is a historical problem dating back to the 1950's, and it distorts our understanding even today, for example through the IAEA lead in reporting on the Chernobyl disaster and the concurrent silencing of the World Health Organization. [Ref. 5] Radiation has been declared a physics problem rather than a medical problem.

PATHWAYS TO HUMANS:

While natural uranium does contaminate the food web and drinking water of humans to some extent, its portal into the body is by way of the gastro-intestinal tract. This human digestive system is very effective against uranium. About 99% of the ingested uranium is excreted in feces within 24 hours. In the case of airborne uranium dust, which occurs in a mine or mill; or in the vicinity of the tailing piles, small particles, less than 10 microns in diameter, can be inhaled.

Although much of the information on inhaled depleted uranium has been based on the inhalation of dust in the uranium mine or mill, most occupationally inhaled uranium dust particles are of such aerodynamic form that only 1 to 5% penetrated into the lungs. Most was deposited in the upper respiratory tract and diverted into the gastro-intestinal tract. It is generally accepted that radon gas and its decay products, lead, bismuth and polonium, and not uranium, are the main cause of lung cancer in uranium miners.

On the other hand, Uranium subjected to melting and aerosol formation is of different aerodynamic form than the dust in a mine. Only about 75% of the inhaled aerosol is expected to be diverted to the gastro-intestinal tract. The 25% of inhaled ceramic and non-ceramic aerosol uranium, which remains in the lungs, has no exit except through the lung - blood barrier or into the lymph system. The lung is like a bag with no exit portal, such as we find in the rectum. If eventually the uranium in the lung dissolves in body fluid, it can be carried into the blood and circulated within the body. If it cannot be dissolved, it may be ground into very fine particles by the lung motion and eventually carried by monocytes [phagocytes] into the thoracic lymph nodes and the body's lymph system. [Ref.1]

After a uranium air contamination event it is important to do feces analysis for uranium within 48 hours of the

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exposure. This is obviously not a good test for the Gulf War Veterans some 8 or 9 years after their exposure in the Gulf War. However, had the governments been alert to the human dimensions of this exposure, they should have done testing immediately or at least taken specimens for later analysis. Civilians and Peacekeepers serving later in the contaminated area are less at risk than those exposed to an impact event, because the particles will not be airborne unless disturbed mechanically or by wind, and what is inhaled will be largely diverted into the stomach. There will be exceptions, and some particles can still become trapped in the lungs of an unsuspecting person.

Contact with depleted uranium metal will continue to be a hazard long after the war is over, especially for children and souvenir hunters. Children in Iraq have been seen playing with the radioactive debris left by the warriors.

The Textbook «Military Radiobiology» strongly recommends prevention as the medical response to airborne uranium: **A self-contained breathing apparatus, gas mask, or at least fine-particulate mask should be used whenever airborne alpha radiation is present.**

Radioactive material entering into the body through the gastro-intestinal tract can do damage to the lining of the tract. If some is absorbed, it is shunted into the hepatic portal and sent through the liver. In the liver it can be stored or removed and sent to the kidneys, or released into the blood system. Some ingested toxins are detoxified in the liver, but this cannot be said for uranium. Radioactive material, which enters the body through the lung, has no such protective screening.

While both the lungs and the gastro-intestinal tissue can be damaged by the passage of radioactive particulates, there is a greater concern for damage to the lungs when the uranium is in an insoluble form, since this radioactive material stays in the lungs for a very long period of time. We are talking about years rather than hours. There may be problems with intestinal damage at places where the intestinal material is temporarily held up, but generally the pollutant will move out in 24 to 48 hours.

Uranium can also affect the body by exposing the skin and by fragments which enter the body through friendly fire accidents. This subject is being followed and reported on by Dr. Melissa McDiarmid at the Veteran's Hospital in Baltimore, Maryland, USA [Ref. 6]. It will not be treated here.

BIOCHEMICAL BEHAVIOUR WITHIN THE BODY:

Uranium isotopes are a considerable hazard for

accidental exposure through inhalation. [Ref. 1]

The effects of uranium differ with its chemical form, its solubility, and its biological half-life in organs and in the whole body, the tissues of incorporation, and the physiological factors that determine its metabolic fate. Uranium is highly reactive chemically, and the various chemical compounds, which it forms, will have different physical and chemical properties. Its fate in the body will change with the solubility of these compounds, particle size, homeostasis, biological decorporation and method of elimination. Uranium is bound by all of the biochemical properties of the molecule in which it is incorporated, but it will also be continually emitting alpha particles into the surrounding tissue and exerting its toxic heavy metal effect.

Uranium hexafluoride and uranyl nitrate hexahydrate dissolve easily and are taken up from the lungs in a few days, excreted in the urine within days, and are the most likely to cause kidney damage early on after an exposure. For a long time the US Veteran Administration confused this property of soluble uranium with the long-term effects of DU experienced in the Gulf War exposure. They therefore wrongly stated that none of the veteran's medical problems could be attributed to DU unless there was damage to the kidneys. Kidney damage is not expected to occur with the nearly insoluble compounds because of the slow excretion through the kidney and urinary system. However, there may have been a soluble component of the inhaled DU, which caused kidney problems early on after the war.

The chemical form of the DU inhaled in the Gulf, Bosnia and Kosovo Wars was most probably a mixture of: uranium trioxide, which is likely to remain for a few weeks in the lung tissue and in the thoracic lymph nodes); and, two other more insoluble chemical forms - uranium dioxide and triuranium octaoxide, which are likely to remain for several years in the lungs and thoracic lymph nodes). According to Dr. John Gofman, some of this insoluble radioactive debris may remain in the lungs for the rest of a person's life.

The soluble fraction of uranium which passes the lung-blood barrier, is expected to form chemical complexes with the bicarbonate in plasma (47%), form chemical bonds with protein in plasma (32%), and bind to the red blood cells interfering with iron transport (20%). [Ref. 7] The low molecular weight uranyl-bicarbonate will pass most easily through the renal glomerulus, and if the pH is low will rather quickly be passed through the kidneys and excreted in urine. This is the first fraction

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release, which depending on its rate of passage may or may not have caused kidney damage in Veterans early on after the exposure.

If the pH of the kidney is high, small amounts of the uranyl bicarbonate can be retained within the walls of the kidney. It would increase localized radiation doses to the kidney.

Uranium bound to protein or to erythrocytes will not easily pass through the renal glomerulus, and will likely stay in the blood or lymph. Uranium can be incorporated into bone, although if it is in ceramic form this may not occur.

RADIOLOGICAL ACTIVITY WITHIN THE BODY:

Radiation induces the formation of reactive chemical products when it enters a biological system [Ref. 1] It can effect the water inside cells, converting it to free radicals which can form harmful peroxides which in turn cause damage to the cell and its membrane. The radiation can also directly impact DNA and large molecules, breaking the molecular bonds and fragmenting the genetic material, the cell membrane, and the enzymes that the cell needs for repair.

Damage to the membrane increases cell fluidity and permeability, leaving it vulnerable to viral and bacterial invasion. The process can cause the release of an inflammation cascade, or important biochemical mediators, which induce chronic problems. It can kill cells, or induce subtle changes in the cellular physiology of those cells that survive. This damage can in turn sensitise the organism to other insults. When cell membrane permeability is increased, there may be invasion by micobacteria and infections of various kinds can develop.

The most talked about effect, namely cancer, is most likely not the most frequent effect which is an increase in bio-feedback mistakes due to the breakage and disruption of molecules, a characteristic of the ageing process.

MEDICAL TREATMENT:

Major categories of injury include the haemopoietic, gastrointestinal, and neurovascular syndromes. There is no realistic hope in managing injuries in the neurovascular system. [Ref. 1]

Bone marrow cells and circulating blood cell damage leads to opportunistic infections, often from micobacteria, which require anti-microbial and immuno-modulating techniques. It may be possible to enhance marrow repair.

Restoration of body fluid and electrolyte balance is important. To rid the body of the uranium contamination,

chelation therapy may be undertaken with professional supervision. It is important not to deplete the body of needed minerals, and also not to overload the kidneys by precipitating uranium too rapidly. [Ref. 8]

CURRENT EPIDEMIOLOGICAL DATA:

The Hannan Chuo Hospital in Osaka, Japan has in its catchment area more than a thousand survivors of the Hiroshima and Nagasaki atomic bomb (called Hibakusha). [Ref. 9] In 1985 they undertook a study of the chronic health problems of the Hibakusha, then having average of 59.5 years, against the expected ill health for person 60 years and over, based on The Basic National Life Survey, 1986, prepared by the Japanese Ministry of Health and Welfare. This research was done in the civilian sector and the Radiation Effects Research Foundation, the holders of atomic bomb research database, denied the researchers information on the atomic bomb exposure of each person in their study.

They divided the Hibakusha into two groups, namely those who had immediate acute symptoms of radiation sickness in 1945 (presumed to have the greatest dose) and those who were known to have been exposed but were without acute radiation symptoms. This study generally speaks to the long-term disability suffered by those who experienced the atomic bomb. The entries in the table are the results of dividing the incidence rate in the exposed group with the incidence rate in the general population.

In 1995, a study was undertaken in Belarus, the country that received the heaviest fallout from the Chernobyl reactor disaster. The study compared the health problems of the following populations: the more than 60,000 Belarus liquidators who received the highest doses while working directly in the contaminated area in the years 1986 to 1987; the more than 1.5 million Belarus citizens who had to be evacuated because of the contaminated land; and the population in general. They found marked differences in health, reported as ratios between the rate in the exposed groups and the rate in the general Belarus population. [Ref. 10]

The Liquidators, who were 30 to 35 years old at the time of the disaster, experienced higher rates of diabetes mellitus (twice the rate in the general population); serious mental disorders; diseases of the central nervous system and sense organs (including cataracts); higher incidences of cardiovascular diseases (including hypertension), i.e ischemia, stenocardia, cerebrovascular, endarteritis and thrombocystis. [Taken from an English translation of the Russian].

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Symptom	A-bomb survivor with acute symptoms	A-bomb survivor without acute symptoms	General Japanese Population
General Fatigue	2.8	1.9	1.0
Blurred, double vision	5.1	3.3	1.0
Loss of visual acuity	3.9	3.1	1.0
Tinnitus	5.6	4.6	1.0
Dizziness	3.8	2.8	1.0
Backache, lumbago	30.0	23.0	1.0
Arthralgia of extremities	24.5	18.5	1.0
Stiff shoulders, neck pain	4.2	3.0	1.0
Shortness of breath	3.2	2.2	1.0
Palpitation	2.2	1.5	1.0
Coughing, sputa	1.9	1.1	1.0
Heartburn, epigastralgia	1.9	1.4	1.0
Headache, head dullness	1.2	0.7	1.0
Thirsty	1.6	0.9	1.0
Excessive urination at night	1.5	1.0	1.0
Numbness of limbs	1.4	1.0	1.0

Most significant among the respiratory diseases are: of chronic pharyngitis, nasopharyngitis, sinusitis, diseases the tonsils, pneumonia, and bronchitis. In 1995, 76 out of 10,000 liquidators were recognized as disabled. In the evacuated population of Belarus, 32.5 per 10,000 were recognized as disabled. The percentage with diseases in the evacuee population has increased with time:

Disease	Chernobyl Liquidators	Belarus Evacuees	Belarus Population
Thyroid cancer	3.24	1.79	1.0
Cataract	2.96	3.01	1.0
Malignant Neoplasms	1.40	0.62	1.0

Disease	Chernobyl Liquidators	Belarus Evacuees	Belarus Population
Respiratory diseases	1.04	0.64	1.0
Digestive diseases	4.72	2.32	1.0
Endocrine, nutritional, metabolic and immune diseases	6.62	4.05	1.0
Blood and blood forming tissue disease	4.38	3.77	1.0
Mental disorders	2.98	2.06	1.0

Health Rating	1993	1994	1995
Healthy	16.6%	13.5%	11.7%
Practically Healthy	26.5%	26.3%	31.1%
With chronic disease	56.9%	60.2%	57.2%

Among the public exposed, there was a significant growth in the incidence of major diseases, especially diseases of the digestive system, urogenital system, nervous system, endocrine system, and diseases of the ear, throat, and nose in both adults and children.

COMPENSATION AND LEGAL ACTION:

Because historically radiation epidemiology, especially when important to the military, has not been in the hands of civilian medical researchers, it will be necessary to build up a data base which can reveal the particular illnesses which are caused by inhalation of ceramic and non-ceramic DU. Findings can be strengthened by comparison with findings for Chernobyl and the Atomic Bomb survivors in Osaka.

We have no way at present to make an assumption that just because DU is present in urine it is the cause of a veteran's illnesses. This is the serious flaw in Dr. Durokavic's approach. He is assuming that the nuclear chemistry which would allow us to determine the original dose to the lungs, and the causal connection between exposure and health effects have been determined. This may be true in military classified documents, but it is not true in the civilian sector. Parliamentarians, judges, veteran administration officials and others in decision-making positions rely on and generally have access only to information in the civilian society. We need either to get hold of the secret military documents (if they exist) or to generate detailed studies of our own.

This latter would involve random selection of veterans and other DU exposed persons, and completion by each of an exposure history, a medical/environmental history, and a detailed medical examination [Ref. 11]. Ideally,

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exposure and dose information would be obtained by urine analysis, and supplemented by the exposure history. Urine analysis would need to be carefully done, and a selected number of participants would need to repeat the urine testing procedure at determined intervals so that an excretion rate can be obtained. This would allow us to determine the original exposure dose for all of the subjects. This project is extensive and would need to be funded. It might take two or three years since there are no easy or quick answers. There should also be a follow up team of physicians willing to develop appropriate chelating techniques for decontamination and other medical therapies for healing.[Ref. 8]

We had started a pilot program three years ago to determine which tests should be administered and how to interpret them when the British Veterans, who were not properly prepared for the needs of the study and who had unreal expectations, caused the study to be aborted. We also found that Dr. Durakovic felt no need for research documentation of harm caused by internal contamination with DU. He was merely assuming this, which might be all right in the military, but is not acceptable in the civilian forum. We have now lost a trusted researcher of top quality, Dr. Hari Sharma, and the use of one of the best laboratories with good equipment. We may be able to locate another. However, none of us are willing to do more without the support of the veterans.

By a carefully focussed design, a cost-effective approach could be made. However this would imply the need for co-operation in planning and execution. No one would benefit unless everyone benefited. It would necessarily be a group study, not one, which would provide evidence for a few chosen individuals. It would require patience and recognition of the legitimate needs and scientific integrity of the research personnel. While you can use the enclosed Diagnostic Protocol for your own medical care, if you want to affect the care of all veterans and the cessation of poisonous warfare, it will be necessary to release the findings of your medical examination (without name) to a legitimate research body.

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Continued from page 19 - Toxic Lead Robbing our Children

And a study too recent to have been included in the Appendix has shown that a child is 4 times as likely to have attention deficit hyperactivity disorder (ADHD) when blood lead levels reached 2 ug/dL or greater, compared to children with lead at 1 ug/dL.[21] In the U.S., an estimated 4.4 million children have been diagnosed with ADHD.[22]

So the problem is large -- but the government and the media together have managed to make it appear small. Yes, we have made progress in curbing the very substantial harm done to ourselves and our children by the paint and gasoline corporations during the 20th century. But we've still got a long way to go.

To make any real progress, government agencies need to stop pretending that this problem has been solved. Publishing all the available data on lead in children's blood would be a good start. Yes, parents would find it disturbing and there might be an uproar. That's as it should be.

Continued on page 26

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Continued from on page 16 – Chemtrails and Aluminum

Other household products contain aluminum oxide such as sandpaper and other abrasives. Billions of nanoparticles are likely to be released when using sandpaper, which until now has been thought to be almost harmless. The problem would be worse when an electric sander is in use. Most people have been wearing a mask when sanding to avoid inhaling wood dust. Now we can see that the wood dust may be the least of our problems. And when sanding is done, there are countless particles of aluminum dust suspended in the air for hours, and all around the area on surfaces where sanding was taking place. Consider how the metal impairs ion regulation in the gills of fish - what harm will aluminum dust do deep in our lungs where there is also a thin blood-oxygen membrane?

EFFECTS ON PLANT GROWTH

Researchers at the New Jersey Institute of Technology have demonstrated that plants can be harmed by nanoparticles. Professor Daniel Watts (a toxicology expert) and a post-doc Ling Yang performed research, and reported that aluminum oxide nanoparticles in ground water inhibited the growth of corn, cucumbers, cabbage, carrots and soybeans. Watts warned that care must be taken to prevent dispersion into the air, where they will be carried by rain into groundwater systems and stunt plant growth. Silicon dioxide (otherwise known as sand) had no effect on plant health.

According to Watts, "There was an assumption that nanoparticles had no effects on plants. But we have shown that seedlings can interact with nanoparticles such as aluminum oxide., and that they can have a harmful effect on seedlings and perhaps stunt the growth of plants." Watts and his post-doc grew seedlings in Petri dishes, using water with aluminum oxide nanoparticles. After just seven days the effects of stunted growth were measurable. [3]

Could aluminum also affect human fetus development via the bloodstream? We do not yet have conclusive data on this. But nanoparticles are used for scratch resistance coatings and sunscreen lotions. Ironically, the Aluminum oxide is also used as environmental catalysts used for remediating polluted soil. Exhaust systems, chimneys or smoke stacks can mix with rainwater and snow to gradually and irreversible pollute groundwater and soil. [3]

Oppenheimer wrote a paper many years ago how barium oxide and aluminum oxide could be dispersed at very high altitude to reflect the sun's heat back into space, would stay suspended for some period of time. But what if he was wrong? What if chemtrail spraying is the real source of the "greenhouse effect?" Is it merely a coin-

idence that since this aggressive world-wide spraying program began, that the poles are melting and winters are growing warmer than ever before?

Perhaps the true objective all along was to warm up the earth, and not cool it.

NOTE: Typos inside quoted remarks have been left unchanged, and are also present in the original document.

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www.data4science.net



Continued from Page 18 – Mercury Rising

"Once the damage has been done, it appears to be a permanent thing. It's something I can't do much about as a doctor," says Brownogehl, who practices in Drexel Hill, Penn.

Brownogehl explains that mercury travels through a mother's bloodstream, "goes through the placenta, and is concentrated in the brain of the fetus." What's so insidious about the neurotoxin, he says, is that it's likely to present no symptoms in a pregnant woman as it attacks fetal brain cells.

"The mercury is damaging and killing the cells as they're trying to develop areas of the brain that deal with attention and memory," Brownogehl says. "You have a nerve poison being introduced during a critical time of the development of the brain."

Brownogehl's remarks are backed by several alarming studies of mercury in the past decade. One study, sponsored by the U.S. National Institute of Environmental Health Sciences, and Europe's Environment and Climate Research Program, showed that children exposed to mercury in utero [did poorly on tests](#) measuring their attention span, memory and speaking abilities. According to the [U.S. Environmental Protection Agency](#), both the brains and nervous systems of children who have been exposed to mercury can be damaged. Their language and visual spatial skills can also suffer.

"Children who suffer the consequences of methyl-mercury toxicity often appear like other children who

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may have been affected for a genetic reason," explains Leo Trasande, the assistant director of the Mount Sinai School of Medicine's Center for Children's Health and the Environment in New York. "A child with mental retardation may have had a significant environmental exposure in the perinatal period. But there are no hallmarks." One study found that an affected child could score lower on IQ tests by as little as .20 of a point to as much as 24 points.

The mercury studies are behind the EPA's advisory to moms and would-be moms [to avoid eating](#) the most mercury-laden fish, such as swordfish and shark. And to go easy on the tuna. But even with those warnings in place, the agency estimated that as many as 600,000 newborns are being exposed each year. That's 15 percent of the 4 million babies born in the United States each year.

While the Bush administration cajoles women to follow its fish warnings, it's proved unwilling to take on the root of the problem. Fish, after all, are not the only the pathway of mercury to our bloodstreams. Coal-fired power plants, in the United States and abroad, are the largest source of man-made mercury pollution. But Bush and company stand in the way of international efforts to prevent mercury pollution and are doing little the stop it at home.

Just last month, the EPA [adopted new regulations](#) to curb power plants' emissions of mercury pollution. It heralded its new rules as the very first time that such pollution has been regulated from coal-fired power plants. But environmentalists and health officials view the new rule, which includes a pollution trading scheme, as unlikely to make much difference in mercury pollution for more than a decade. "Essentially, the agency adopted a do-nothing approach to mercury for the next 12 years," said John Walke, director of the Natural Resources Defense Council's clean-air program.

Brownsoehl compares mercury poisoning to another heavy-metal neurotoxin that once haunted the country: lead. Once common in paint and gasoline, lead poisoned kids and caused lower IQ scores. Mercury is the new lead, he points out, with one crucial difference - there's a lack of political will to do anything about it. "We didn't say, 'OK, don't eat the paint and don't breathe the air,'" Brownsoehl says. "We got the lead out of paint and gasoline. And we still have paint and gasoline. It was a struggle, but people had the political will to do it. People have to decide that this is worth the health of children."

While the Bush administration stalls on mercury at home, global mercury pollution is expected to rise. China, already believed to be the world's largest producer of

man-made mercury emissions, where three-quarters of the electricity comes from coal-fired power plants, will double its electricity-generating capacity by 2020, according to that country's State Power Economic Research Center. Most of those new plants will be coal-fired.

The mercury in fish is actually worse for people than when it leaves the power plant. When coal is burned, mercury is released into the atmosphere as a gas, which turns into aerosol droplets as it cools. Airborne, these droplets can travel hundreds, even thousands of miles, before settling to the ground, where they're eventually washed to the bottom of lakes, rivers and streams.

The bacteria in the sediment at the bottom of the water have a chemical reaction to the mercury, which makes the substance less toxic to the bacteria. But that chemical process also turns it into a form that is most toxic for people: methylmercury. As worms and other organisms in the sediment consume the bacteria, they absorb this methylmercury and pass it on to the critters that eat them. The methylmercury becomes concentrated as it travels up the food chain - with little fish being eaten by bigger fish - until it ends up in high doses in the large sports fish that Americans have such a taste for.

And mercury pollution knows no boundaries. Rainwater in California has been found to contain mercury pollution from [as far away as Asia](#). Moreover, our seafood supply is global: The sea bass you eat in New York or Austin could have come from waters literally half a world away.

The Bush administration, however, has strenuously fought international efforts to curb the pollutant. Just last February, in a meeting in Nairobi, it [battled the establishment](#) of international mercury rules, arguing that it adds up to conflicting messages from the EPA on mercury. The agency issues dire warnings about the hundreds of thousands of children potentially exposed every year, warns women against eating the most mercury-laden fish, but then fails to regulate the pollution that's causing the problem.

Those failures come just as some women are starting to get tested before they start a family. Alisa MacDonnell, 34, of Montara, Calif., recently participated in the [hair-testing program](#) organized by Greenpeace. What MacDonnell found out made her swear off her beloved spicy tuna roll. Her result came back 1.75 micrograms of mercury per gram of hair, 0.75 over the limit recommended by the EPA. "I went completely cold because I was so petrified," she says. Six months later, after giving up fish, her level has gone down 46 percent, to 0.94 micrograms. "Then it was really clear to me that it had something to do with my eating fish."

The cost of not cleaning up mercury pollution in our environment is not just lost sales for the tuna industry, which has been grumbling that sales are down because of,

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concerns about the toxin. [A new study](#) from Mount Sinai published in the peer-reviewed journal *Environmental Health Perspectives*, of which Trasande is the lead researcher, states that the economic fallout of mercury pollution is nearly \$9 billion a year.

The study calculates the economic cost of the hundreds of thousands of kids likely to be brain damaged by mercury. "That's our best estimate of the economic impact of methylmercury toxicity from man-made sources," Trasande says. "The cost will occur in each year's birth cohort. Hundreds of thousands of children each year will continue to suffer this level of brain damage, costing Americans billions of dollars each year if mercury pollution is allowed to continue at this level. On each of these children, methylmercury has a permanent impact that lasts a lifetime. These children enter school with lower IQ, and they don't perform as well."

The doctors based their economic estimates on children who have suffered from lead poisoning, a neurotoxin that has been studied for decades. In those studies, researchers found that even a 1.6 drop in an IQ score could cost that person \$31,800 in earnings over a lifetime. They discovered that adults who suffered from lead poisoning as children were at a persistent economic disadvantage to their peers. The Mount Sinai study found that the U.S. coal-fired power-plant industry is responsible for foisting \$1.3 billion of the \$8.7 annual cost of mercury on all of us. Industry sources dispute the figure.

But a billion here or there doesn't make much difference. The EPA had the final word on mercury poisoning last month, when it released its new mercury regulations after receiving nearly 700,000 public comments on its proposed rule.

Before the rule came out, the inspector general of the EPA, the agency's watchdog, had called the process of creating it [tainted by politics](#) to suit Bush's free-market ideology. And the government's nonpartisan Government Accountability Office had diagnosed a similar distortion of science in the process to favor Bush's [market-based approach](#). And just weeks before the rule came out, 28 senators sent a letter to the EPA, begging it to take stronger action than what it had proposed.

None of this meant anything when the agency came out with a rule that was even weaker. "This is just another example of a politicized process," says Olivia Campbell, the national campaign coordinator for the National Wildlife Federation. "The administration has put the polluters before the health of people and wildlife again. They just don't listen to people or scientists or even the states."

The rule calls for mercury pollution from power plants to be reduced 29 percent from 2005 levels by 2010, and 70 percent by 2018. But it also introduces a so-called cap-and-trade program, which will allow power plants to earn credits for larger reductions they make earlier. They can sell these credits to other polluters or bank them for later use. In the proposed rule, the cap on mercury in 2010 was 34 tons. In the final rule, the power plants can continue to emit 38 tons of mercury until 2010.

Critics argue that a toxin like mercury has never been subject to such a trading scheme before, and they worry that it will create "hot spots" of mercury pollution around the country, as some plants buy credits instead of cleaning up. "The EPA has never before allowed trading for a toxic pollutant," Campbell says. "And with good reason - the Clean Air Act doesn't allow for trading of a toxic pollutant." Ten states, including New Jersey, Maine and California, are suing the federal government over the new mercury rules, arguing they don't meet the standards of the Clean Air Act.

State regulators fear that areas where polluters buy credits instead of cleaning up will continue to suffer more mercury pollution as well as the toxic fallout from it. Some 44 states in the United States have issued fish advisories about seafood caught in local waters because of mercury pollution. Critics also argue that since plants can "bank" credits, they can reduce emissions earlier and earn credits to spend later on. So a "cap" isn't what it sounds like: Emissions won't be reduced 70 percent by 2018, they predict, and will probably fall short of that for years to come.

"EPA's own models show that due to this trading scheme, plants are not going to reach their 70 percent reduction until well beyond 2025," Campbell says.

A rule proposed during the Clinton era called for a 90 percent reduction of mercury by 2008. Environmental groups maintain that the Bush administration is legally obligated to meet that reduction level under the Clean Air Act. "The administration is using this as cover to adopt a 20-year delayed cleanup program requiring very weak pollution cuts," says Walke from the Natural Resources Defense Council.

For its part, the EPA maintains that even if it eliminated all the mercury pollution from U.S. power plants, it still wouldn't clean up the fish that Americans eat, since the fish supply is so global. "Airborne mercury knows no boundaries; it is a global problem," said acting administrator Steve Johnson [in a statement](#). "Until global mercury emissions can be reduced - and more importantly, until mercury concentrations in fish caught and sold globally are reduced - it is very important for

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women of child-bearing age to pay attention to [the advisory issued](#) by EPA and FDA, avoiding certain types of fish and limiting their consumption of other types of fish." So, for the moment, fish eaters will just have to fend for themselves.

Karen Perry, deputy director of the environmental health department at Physicians for Social Responsibility, has this advice: "For women who are of child-bearing age, we would advise they learn more about which fish are the cleanest and the safest and continue to eat fish in moderation and choose the lowest-mercury fish. The sad part of all of this is that fish is such a healthy food, we don't want to tell people not to eat it. So you have to give them [more information](#), so they can make the best choices."

But even this type of "throw up your hands and save yourself" advice doesn't sit well with physicians who know that such recommendations alone won't solve the larger public health issue of what mercury is doing to kids. "It's important to advise families about high mercury levels in fish, but it's unconscionable to not reduce mercury levels in fish," says Trasande from Mount Sinai. "Otherwise, we'll be allowing mercury to poison a generation of our nation's children."

"Think of another disease that you could prevent that affects 600,000 patients in the U.S. a year," says Dr. Brownogehl. "Talk about No Child Left Behind! If you don't want to leave them behind, get the mercury out."

<http://www.salon.com/news/feature/2005/04/18/mercury/index.html>

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FDA Reluctantly Admits Mercury Fillings Have Neurotoxic Effects on Children

David Gutierrez

Natural News
December 03, 2008

For the first time, the FDA has issued a warning that the mercury contained in silver dental fillings may pose neurological risks to children and pregnant women.

"Dental amalgams contain mercury, which may have neurotoxic effects on the nervous systems of developing children and fetuses," reads a statement that has been added to the agency's Web site. "Pregnant women and persons who may have a health condition that makes them more sensitive to mercury exposure, including

individuals with existing high levels of mercury bio-burden, should not avoid seeking dental care, but should discuss options with their health practitioner."

The warning was one of the conditions that the FDA agreed to in settling a lawsuit filed by several consumer health groups.

"Gone, gone, gone are all of FDA's claims that no science exists that amalgam is unsafe," said Charles Brown, a lawyer for Consumers for Dental Choice, one of the plaintiffs.

"It's a watershed moment," said Michael Bender of the Mercury Policy Project, another plaintiff.

Mercury is a well-known neurotoxin that can cause cognitive and developmental problems, especially in fetuses and children. It can also cause brain and kidney damage in adults.

So-called dental amalgams, or fillings made with a mix of mercury and other metals, have been used since the 1800s. Although it is known that small amounts of mercury are vaporized (and can be inhaled) when the fillings are used to chew food, and though Canada, France and Sweden have all placed restrictions on the use of mercury fillings, the FDA has always insisted that amalgams are safe.

Dental amalgams are considered medical devices, regulated by the FDA.

Even the FDA's new warning stops short of admitting that dental amalgams are dangerous for the general population. Instead, it focuses on the same population that has already been warned to limit mercury exposure by consuming less seafood: children and pregnant women. The FDA says it does not recommend that those who already have mercury fillings get them removed.

Millions of people have received amalgam fillings, although their popularity has dropped off in recent years. Currently, only 30 percent of dental fillings contain mercury - the rest are tooth-colored resin composites made from glass, cement and porcelain. These alternative fillings are more expensive and less durable than amalgam, however.

In 2002, the FDA began a regulatory review of amalgam that was expected to be complete within a few years. In 2006, with the review still incomplete, an independent FDA advisory panel of doctors and dentists rejected the agency's position that there is no reason for concern about the use of amalgam. While the panel agreed that the majority of people receiving such fillings would not be harmed, panel members expressed concern for the health of certain sensitive populations, including children under the age of six.

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Continued from page 30 – FDA Admits Mercury Fillings Have Neurotoxic Effects on Children

The panel recommended that the FDA conduct further studies on the risks to children from dental amalgam, and that it consider a policy of informed consent for children and pregnant women: that is, warning those groups of the risks associated with the fillings before installing them.

Part of the lawsuit centered on the FDA's failure to respond to these recommendations in a timely fashion.

"This is your classic failure to act," federal judge Ellen Segal Huvelle told the agency.

As part of the lawsuit settlement, the FDA must reach a final decision on the regulation of amalgam by July 28, 2009.

"This court settlement signals the death knell for mercury fillings," Brown predicted. But J.P. Morgan Securities analyst Ipsita Smolinski disagreed, saying that the FDA is unlikely to ban amalgam entirely

"We do believe that the agency will ask for the label to indicate that mercury is an ingredient in the filling, and that special populations should be exempt from such fillings, such as: nursing women, pregnant women, young children, and immunocompromised individuals," Smolinski said. Prison Planet.

<http://www.naturalnews.com/024993.htm>



FDA Stuns Scientists, Declares Mercury in Fish to be Safe for Infants, Children, Expectant Mothers!

By Mike Adams

Natural News
December 17, 2008

In a truly astonishing betrayal of public safety (even for the FDA), the U.S. Food and Drug Administration today revoked its warning about mercury in fish, saying that eating mercury-contaminated fish no longer poses any health threat to children, pregnant women, nursing mothers and infants.

Last week, the FDA declared trace levels of melamine to be safe in infant formula. A few weeks earlier, it said the plastics chemical Bisphenol-A was safe for infants to drink. Now it says children can eat mercury, too. Is there any toxic substance in the food that the FDA thinks might be dangerous? (Aspartame, MSG, sodium nitrite and now mercury...)

This FDA decision on mercury in fish has alarmed EPA scientists who called it "scientifically flawed and inadequate," reports the Washington Post. Even better, the Environmental Working Group (www.EWG.org) issued a letter to the EPA, saying "It's a commentary on how low FDA has sunk as an agency. It was once a fierce protector of America's health, and now it's nothing more than a patsy for polluters."

Is anyone really surprised? The FDA is a drug-pushing, people-betraying, scientifically illiterate criminal organization that, time and time again, seeks only to protect the profits of powerful corporations whose products poison the people. This statement is no longer a mere opinion. It is an observable fact based on the FDA's own pattern of behavior and its outlandish decisions that predictably betray the American public.

The real reason this is happening

You want to know the REAL reason the FDA is easing up on its warning about mercury in fish? It's because the agency is being relentlessly pounded over two related issues: Mercury in dental fillings and mercury preservatives in vaccines. And the FDA can't keep up its lie about the "safety" of vaccines and mercury fillings if it has already declared mercury to be dangerous in fish, right?

To the criminal minds running the FDA, the clever solution is to revoke the warning about mercury in fish. Thus, the FDA takes the position that **all mercury is safe**, and suddenly they're off the hook on mercury fillings and thimerosal in vaccines.

In other words, the FDA has just aligned itself as a defender of one of the most neurotoxic substances that's ever been found. Only a truly corrupt regulator could even attempt to defend such a position, and only a truly insane individual could argue that mercury exposure is safe for infants, children and expectant mothers. Not coincidentally, mercury exposure *causes insanity* (look up the historical term "mad as a hatter").

Given that most of the FDA decision makers probably have mercury fillings in their mouths and mercury molecules lodged in their brains from getting their vaccine shots, it's no stretch to consider the possibility that the FDA decision have, in a very strict medical sense, lost their minds due to mercury exposure. There's hardly any other way to explain the mad behavior of FDA officials.

I think it's time we called for an **FDA MUTINY** and declared the leaders of that agency to be too incompetent to run it anymore. These people need to be relieved of command before their hazardous pronouncement

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ments lead to yet more consumers being poisoned or killed. The FDA scientists, in my opinion, should revolt (in a non-violent way, of course) against the politically-motivated decision makers spewing all this "eat more poison" advice.

http://www.naturalnews.com/News_000622_mercury_FDA_fish.html



Lead Exposure in Children linked to Violent Crime

A study finds that even low levels can permanently damage the brain. The research also shows that exposure is a continuing problem despite efforts to minimize it.

By Thomas H. Maugh II and Marla Cone

Los Angeles Times
May 28, 2008

The first study to follow lead-exposed children from before birth into adulthood has shown that even relatively low levels of lead permanently damage the brain and are linked to higher numbers of arrests, particularly for violent crime.

Earlier studies linking lead to such problems used indirect measures of both lead and criminality, and critics have argued that socioeconomic and other factors may be responsible for the observed effects.

But by measuring blood levels of lead before birth and during the first seven years of life, then correlating the levels with arrest records and brain size, Cincinnati researchers have produced the strongest evidence yet that lead plays a major role in crime.

The researchers also found that lead exposure is a continuing problem despite the efforts of the federal government and cities to minimize exposure.

The average lead levels in the study "unfortunately are still seen in many thousands of children throughout the United States," said Philip J. Landrigan, director of the Center for Children's Health and the Environment at the Mount Sinai School of Medicine in New York.

The link between criminal behavior and lead exposure was found among even the least-contaminated children in the study, who were exposed to amounts of lead similar to what the average U.S. child is exposed to today, said Landrigan, who was not involved in the study.

"People will sometimes say, 'This is in the past. We are cleaning up lead. We don't have lead problems anymore,'" said criminologist Deborah W. Denno of Fordham University in New York, who also was not involved in the study. "The Ohio study says this is still a big problem."

Nationwide, about 310,000 children between the ages of 1 and 5 have blood lead levels above the federal guideline of 10 micrograms per deciliter, and experts suspect that many times that number have lower levels that are still dangerous.

"It is a national disgrace that so many children continue to be exposed at levels known to be neurotoxic," said neurologist David C. Bellinger of Harvard Medical School, who wrote an [editorial accompanying the study](#) published in the online journal PLoS Medicine.

Although some urban soil is still contaminated with lead from gasoline, 80% of lead exposure now comes from houses built before 1978. Paint in such houses can contain as much as 50% lead, and even if it has been covered by newer, lead-free paint, it still flakes or rubs off.

About 38 million U.S. homes, 40% of the nation's housing, still contain lead-based paint, according to the U.S. Department of Housing and Urban Development. The problem is particularly acute in urban areas, which typically have older housing that has not been renovated.

More recently, parents and authorities have become concerned about increasing levels of lead-based paint in toys imported from China.

Researchers have long known that lead exposure reduces IQ by damaging brain cells in children during their early years.

It is also known that lead increases children's distractibility, impulsiveness and restlessness and shortens their attention span, all factors considered precursors of aggressive or violent behavior.

A landmark 1990 paper by Denno linked lead to increases in criminal behavior, but the children in the study were not tested for lead levels. The diagnoses were based on their physicians' evaluation, Denno said.

The Cincinnati lead study enrolled 376 pregnant women in Cincinnati's inner city between 1979 and 1984, measuring their blood lead levels during pregnancy and the children's levels during their first seven years of life.

In the [new study](#), environmental health researcher Kim N. Dietrich of the University of Cincinnati College of

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Medicine studied 250 of the original group, correlating their lead levels with adult criminal arrest records from Hamilton County, Ohio. He and his colleagues found that 55% of the subjects (63% of males) had been arrested and that the average was five arrests between the ages of 18 and 24.

The higher the blood lead level at any time in childhood, the greater the likelihood of arrests. "The strongest association was with violent criminal activity -- murder, rape, domestic violence, assault, robbery and possession of weapons," Dietrich said.

Blood lead levels in the children ranged from 4 to 37 micrograms per deciliter.

The researchers found, for example, that every 5-microgram-per-deciliter increase in blood lead levels at age 6 was accompanied by a 50% increase in the incidence of violent crime later in life. Confirming previous findings, the effect of lead was strongest in males, who had an arrest rate 4 1/2 times that of females.

In a [related study](#), spectroscopist Kim M. Cecil of Cincinnati Children's Hospital Medical Center and her colleagues examined a "representative sample" of 157 members of the same group using whole-brain MRI scans. They found that those with the highest blood levels of lead during childhood had the smallest brain volume.

On average, the brains of those in the study were about 1.2% smaller than normal. The most affected regions of the brain were those regulating decision making, impulse control, attention, error detection, task completion and reward-based decision making.

"The most important message is that lead affects brain volume, independent of demographic and social factors that are often used to explain away poor outcomes" in life, Cecil said. "This is independent biological evidence showing that the brain is affected by lead."

http://www.latimes.com/news/nationworld/nation/la-sci-lead28-2008may28_0,2054735.story



Agency Aims to Ease Confusion over Lead Law

Consumer Product Safety Commission issues some temporary exemptions

The Associated Press

February 6, 2009

WASHINGTON - Librarians, clothing makers, craft sellers and thrift-store owners received a reprieve Friday from federal regulators who moved to quell confusion

over a new product safety law.

The Consumer Product Safety Commission issued what amounts to temporary exemptions to a new anti-lead rule taking effect Tuesday. Last week, the CPSC delayed until next year the lead testing required as part of the law, adding to confusion over how the new standard would be enforced.

Under the new guidelines, people who sell or make children's products that usually don't have high levels of lead — such as certain kids' clothing and crafts made of natural woods — are among those getting an exemption. Libraries would also get some relief.

Thrift stores, clothing makers and others complained the law was overly broad and could cause some to go out of business. Libraries suggested they might have to ban children to keep them away from books that were perfectly safe.

Specifically, the enforcement policy issued by the CPSC temporarily exempts materials with lead content that consistently fall well below the new standard taking effect next week. That standard mandates kids' products may contain lead at a level of no more than 600 parts per million.

The products outlined in the new policy include:

- products made of dyed and undyed wool and cotton, such as clothing.
- ordinary children's books printed after 1985. There is concern about the level of lead in the ink used in books printed before 1985.

The acting head of the agency, Nancy Nord, said she hoped the policy statement would "help reduce confusion in the marketplace."

Nord has been criticized by Democrats in Congress who pushed for the new law following a slew of lead-tainted toy recalls. She has blamed confusion over the law on Congress for passing a sweeping bill with tight deadlines and no new funding.

Earlier this week, Sens. Mark Pryor of Arkansas, Jay Rockefeller of West Virginia and Reps. Henry Waxman of California and Bobby Rush of Illinois, sent President Barack Obama a letter accusing Nord of bungling implementation of the law. They requested that Obama ask Nord, a Bush appointee, to step down immediately.

On Friday, Pryor welcomed the new policy statement from the agency. I urge the commission to provide further assistance to the many small businesses that are applying a good-faith effort to protect their young consumers," Pryor said.

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Continued from page 33 – Agency Aims to Ease Confusion over Lead Law

The agency plans further study before issuing permanent exemptions. CPSC said people who knowingly sell, manufacture or distribute children's products with excessive levels of lead will not be exempt. Those who have been warned before by CPSC about their products also could be prosecuted.

The new lead limit was passed overwhelmingly by Congress last summer as part of a bigger product safety law. It applies to products made for children 12 and under. Toys and other kids' products that contain certain chemicals, called phthalates, over 1,000 parts per million also would be banned.

Businesses, especially small businesses, complained that the law could cause significant financial losses or store closings because of costly product testing required in the law.

Last Friday, CPSC announced that it had voted to delay for one year most of the testing requirements. The new limits for allowable lead and phthalates remain, but the requirement for the testing and certification slips to Feb. 10, 2010.

Lead poisoning can cause irreversible learning disabilities and behavioral problems. Phthalates have been linked to reproductive defects and other health problems.

<http://www.msnbc.msn.com/id/29061226/>



Continued from page 3 - African Spirituality Has Never Been Institutionalized

King David, preached and lived a gospel of brotherhood and truth. He preached his belief in one almighty invisible and formless power, which he called Aton. The "formless" Power was seen as all-powerful, all caring and a life-giving energy.

The capability to ascribe the universe to one supreme power had been in practice by the Akan of Ghana, the Ife of Nigeria, the Dogoh of Mali, the Nubia of Sudan, all the Bantu groups in Southern Africa and many others, long before the Europeans arrived in Africa. Thus, the contemporary belief in a Superior Spirit, so beloved by both Christians and Muslims has been obvious and well known and practiced amongst Africans, whose religiousness goes much further back than the Christian era.

Africans do not pre-occupy themselves with having direct rituals of 'worship' to the Creator, either at a social or an individual level. A relationship with Mwari

Musiki, the Creator is through the immediate environs of one's ancestors practiced through the process of libation (kupira or kuteura) directed towards one's ancestors while saying some words appropriate for the occasion.

Nigeria: Outside the compound

"Pour libations for your father and mother who rest in the valley of the dead. Do not forget to do this even when you are away from home. For as you do for your parents, your children would do for you."

'The Papyrus of Ani' (New African, May 2001). The ancient Egyptian Book of the Dead and Papyrus of Ani are the best surviving example of the texts that were created around 1250 BCE during the Theban period (1570-1070 BCE).

They represent the most complete and ornate examples of ancient African social, religious, and spiritual thought yet discovered. They are an artistic rendition of the mysteries of life and death. They are the best surviving example of some 200 texts comprising the funerary scrolls that accompanied deceased ancient Egyptians into the afterlife.

The Egyptian Book of the Dead, of which the Papyrus of Ani is one, is composed of some 200 "chapters" of some of the earliest spiritual writings of humanity. These original texts were known to the ancient Egyptians as The Book of Going Forth by Day. They were discovered in Egypt and acquired in 1888 and hastily cut into even lengths and pasted onto wooden boards for shipment to England as a collection of the British Museum before any translation was undertaken. The documents are essential not only for their historic significance, but also for an insight into the African religion and teachings about life.

"The Book of the Coming Forth by Day" is the oldest written document existing to date on religion from which adoptions by many other religions were made and grossly distorted. The Pyramid Texts preceded the Pentateuch/Torah (Old Testament's first five books) by thousand years. The Pentateuch is of an origin not older than 1,078 years, i.e. written from around 700 BCE. The Pyramid Texts and Coffin Texts had been written more than 3,400 years before the Bible. This proves the glorious African religious origins of all 'universalised' religions in the world today. Some of the contents of these ancient Egyptian teachings were adopted and distorted by Jewish copyists and scribes.

"Through 'Mhiravadzimu' or 'Kupira vadzimu' (communication/connectivity with the ancestral spirits), the communication takes the form of monologue although it is essentially conceptualized as a dialogue by the participant. The eldest person speaks to the ancestors

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on behalf of the rest of the gathering in a language that is full of imagery and rhythm. The living-dead, whose spirits are believed to be caring for the living descendents, are addressed as if they are present. The first breath-unit usually calls for the attention of the ancestral spirits.

Fellow supplicants clap hands in agreement with the leading poet. It is imperative for supplicants to hear what the leading poet says so that they ratify his poetry with hand clapping and ululation. Clapping rhythmically - during the recital means that people are of one accord. Women in the end ululate to wrap up the poetic discourse.

In the absence of an audience, one can whisper a dedication or briefing to ancestors in order to guarantee their cooperation" - Professor Emmanuel Chiwome, 'A Critical History of Shona Poetry'.

Eurocentric missionaries thought that the absence of any direct worship of the Creator is the absence of divinity in the foundation of African morals and customs. They mistakenly thought that Africans are either atheist or spiritually immature.

They just did not understand.

<http://www.edofolks.com/html/pub132.htm>



Good News: Fewer Kids have High Lead Levels

Aggressive public health efforts credited with 84 percent drop since 1988

The Associated Press
March 2, 2009

CHICAGO - In a stunning improvement in children's health, far fewer kids have high lead levels than 20 years ago, new government research reports — a testament to aggressive efforts to get lead out of paint, water and soil.

Lead can interfere with the developing nervous system and cause permanent problems with learning, memory and behavior. Children in poor neighborhoods have generally been more at risk because they tend to live in older housing and in industrial areas.

Federal researchers found that just 1.4 percent of young children had elevated lead levels in their blood in 2004, the latest data available. That compares with almost 9 percent in 1988.

"It has been a remarkable decline," said study co-author Mary Jean Brown of the Centers for Disease Control and Prevention. "It's a public health success story."

The 84 percent drop extends a trend that began in the 1970s when efforts began to remove lead from gasoline. The researchers credited continuing steps to reduce children's exposure to lead in old house paint, soil, water and other sources.

The study was being released Monday in the March edition of the journal *Pediatrics*. It is based on nearly 5,000 children, ages 1 to 5, who were part of a periodic government health survey.

The government considers levels of at least 10 micrograms of lead per deciliter of blood to be elevated, although research has shown that levels less than that can still cause problems including attention and reading difficulties. There is no known "safe" level, the study authors noted.

'Entirely preventable'

Caroline Cox, research director of the Center for Environmental Health, a California-based advocacy group, noted that lead poisoning "is entirely preventable." "There's no reason even one child in the United States should be poisoned by lead," Cox said. "It's great there aren't as many now as there were, but there are still too many."

By 2004, racial disparities among children with blood-lead levels higher than 10 micrograms had mostly disappeared: About equal numbers of white, black and Mexican-American children had levels in that range.

However, disparities at lower levels remained. For example, almost 18 percent of white children had levels of less than 1 microgram per deciliter, versus 11 percent of Mexican-Americans and 4 percent of blacks.

Children from lower-income families also had higher lead levels than those from wealthier families.

Dr. Bruce Lanphear, a lead specialist at Cincinnati Children's Hospital Medical Center who wasn't involved in the government study, said lead levels have probably continued to decline since 2004. But the findings show "we need to still continue to be aggressive" with prevention efforts, he said.

Lead-based paint in old housing, which can contaminate house dust and soil, is the main source. Children also can be exposed to lead in water, mostly from old plumbing pipes, as well as toys and certain folk medicines.

The CDC recommends that pregnant women and young children avoid housing built before 1978 that is undergoing renovation. Other recommendations include

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Uganda: Survey On Lifestyle Diseases Due

Anne Mugisa and Anthony Bugembe

5 February 2009
New Vision

Kampala — THE Government is to conduct a countrywide survey on lifestyle diseases like diabetes, cancer and heart ailments following a sharp rise in their occurrence.

Doctors have said the country was "sitting on a time bomb" in regards to diseases which are classified as non-communicable.

The inaugural survey will cost about sh600m, according to Dr. James Ssekajugo, the principal medical officer for non-communicable diseases.

He said the study, supposed to start last year, was hampered by lack of funds.

Ssekajugo said funds were expected this financial year and that the technical team for the study had been set.

He was speaking during a press briefing on the upcoming International Chronic Diseases summit yesterday at the Media Centre in Kampala.

Ssekajugo said the diseases that used to afflict people above 65 years, were increasingly being reported among 30 to 45-year-olds.

The two-day summit starting today at the Kampala Serena Hotel is sponsored by the Aga Khan University and organised by the Government and the World Health Organisation.

<http://allafrica.com/stories/200902060496.html>



More Americans are Sick with Multiple Chronic Illnesses

January 23, 2009

A recent study released reveals that more Americans are suffering chronic illnesses today than ever before. In fact, it is common for American people to be burdened by more than three chronic illnesses simultaneously.

This situation has contributed to a significant increase in out-of-pocket medical expenditures for many Americans because prescription drugs are often not completely covered by health insurance policies. The average annual out-of-pocket expense increased from

\$427 per American in 1996 to \$741 in 2005. After adjusting for inflation, this is a 39% increase in this type of spending per person over that period of time.

Unfortunately, these expenditures are significantly higher for the elderly. An elderly person insured through Medicare with three or more chronic illnesses pays an average of \$2,588 in out-of-pocket medical expenses.

According to government survey data, 44 percent of Americans had at least one chronic medical condition in 2005. This includes high cholesterol, cancer, diabetes, high blood pressure, arthritis, heart disease, and other conditions. In 1996 the percentage was 41.

The study did not examine causes for the increase, but there are several obvious factors that are contributing to the overall decline in the health of Americans.

The sedentary lifestyle and processed-food diets of many Americans and the resulting increase in obesity are becoming more and more prevalent. Obesity is directly related to many chronic illnesses, including diabetes. New diabetes cases have increased among Americans by approximately 90 % over the last ten years.

The most troubling increase, however, was the increase in the number of Americans with three or more chronic diseases. This figure rose from 13 percent in 1996 to 22 percent in 2005 for Americans between the ages of 45 and 64. For Americans ages 65 to 79 the increase rose to 45 percent and for Americans over 80 the figure rose from 38 percent to 54 percent. For all ages combined the figure was 7 percent in 1996 and rose to 13 percent in 2005.

The management of these chronic illnesses in America consumes 75 percent of over \$2 trillion spent annually on health care in the United States.

Of note is that the increase in the incidence of chronic illness is not just among the oldest age groups. The middle age and early old age groups have also increased and these figures are not dependent on race, sex, ethnicity, or income levels.

These report results are based on nationally representative surveys of approximately 32,000 Americans in 2005 and approximately 22,000 Americans in 1996.

President-elect Obama has plans to try to solve the rising costs of the flawed US health care system. His efforts will certainly be complicated by the unfortunate declining state of health of many Americans.

<http://refreshingnews.blogspot.com/2009/01/more-americans-are-sick-with-multiple.html>



Chronic Summit opens in Kampala

By Kakaire A. Kirinda & Jane Nafula

February 6, 2009
Daily Monitor, Kampala

Imagine spending resources for 20 or 25 years to educate a teacher or doctor respectively and they are lost within few years into their working life.

That is the challenge families in developing countries like Uganda face following the rise in non-communicable diseases (NCDs) commonly referred to as chronic diseases such as cancer, diabetes and hypertension, which are turning out to be leading killers.

Previously known to affect mostly older people, NCDs are increasingly affecting younger people with the peak incidence reported in the 40 to 45 age group in Africa. It is precisely for these reasons that the Aga Khan University has teamed with the Ministry of Health and the World Health Organisation to organise a two-day global summit on chronic diseases which starts today in Kampala.

It emerged yesterday at a pre-summit media briefing that although data is lacking, most developing countries are sitting on what was referred to as a time bomb.

Dr Silver Bayendeka, a senior consultant physician at Mulago Hospital, said most of the available data is hospital based.

“For every single patient diagnosed with diabetes, four are left behind,” Dr Bayendeka said. “That is the data we have from small studies. But Diabetes is serious. And without mincing words, we are sitting on a time bomb.”

According to Dr James Sekajugo, the principal medical officer in charge of non-communicable disease control in the ministry, a considerable number of people are dying of NCDs and blame witchcraft or some other causes. He, however, disclosed that in the case of Uganda, statistics at the Uganda Heart Institute alone show a threefold increase in a period just five years.

In a bid to tackle the growing problem, Uganda is to embark on the first ever baseline NCDs risk factor survey. The president of the Aga Khan University, Mr. Firoz Rasul, said as a contribution to tackling the new challenge, the institution is expanding presence in East Africa.



COME BACK TO YOUR ROOTS

1 in 150 Children in U.S. Has Autism, New Survey Finds

By Rick Weiss

Washington Post
February 9, 2007

Approximately one in every 150 children in the United States has autism or a closely related disorder -- a figure higher than most recent estimates -- according to a federal survey released yesterday, the most thorough ever conducted.

The new data, from 14 states, do not mean that autism is on the rise, because the criteria and definitions used were not the same as those used in the past.

But the sheer number of children apparently affected -- 560,000 nationwide if the new statistics are extrapolated to all 50 states -- makes autism an "urgent public health issue" and a "major public health concern," said Marshalyn Yeargin-Allsopp, chief of the developmental disabilities branch of the Centers for Disease Control and Prevention, which conducted the survey.

The prevalence of autism, a poorly understood behavioral syndrome that interferes with a child's ability to relate to or interact with others, varies mysteriously from state to state in the survey, with New Jersey standing out as a hot spot and Alabama and West Virginia having low rates. West Virginia, however, appeared to tally a significant increase from 2000 to 2002, the two years for which data have been compiled so far. Most of the other states showed no change in that period.

The survey, which is to be updated regularly, offers no clues about what causes autism or the range of related disorders that together cost the nation tens of billions of dollars a year and take an immeasurable emotional toll on families.

In particular, it sheds no light on the controversial claim that trace amounts of mercury in childhood vaccines are behind the growing number of diagnoses in recent decades. The survey data may help settle that question in future years, because most vaccines have recently eliminated the ingredient.

The survey does provide an unequaled, standardized baseline measure of the prevalence and distribution of autistic behaviors around the country, CDC officials said. In the short term, that can help state and federal officials budget their special education and mental health services needs.

Over the longer term, it may tell at last whether autism is

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becoming more common and, if so, why.

"We need to do our best to get a better understanding of how many children are affected," said Catherine Rice, a CDC behavioral scientist and a senior author of the new report, published in today's issue of the agency's Morbidity and Mortality Weekly Report.

The results are the first to come out of the CDC's Autism and Developmental Disabilities Monitoring Network, launched in 2000. That program aims to get the most accurate statistics possible on the prevalence of autistic behaviors by collecting information on thousands of children from schools, medical clinics and social service providers.

Past estimates have varied because there is no simple test to provide a definitive diagnosis and because the behavioral measures used to define the syndrome have changed over time.

Today, the definition encompasses a wide range of children, some "fully disabled" and others who "have something that is much more mild and can attend school but may have some social disability," said Thomas R. Insel, director of the National Institute of Mental Health.

Insel said he was "not surprised" by the new numbers, given recent estimates that ranged from one in 150 children to about one in 170.

He emphasized that the new numbers may not reflect the true incidence of the syndrome because they are derived not from clinical exams but from descriptive reports provided by teachers and others, which were reviewed by experts for key words that suggested a diagnosis of autism, Asperger syndrome or any of several related disorders.

The CDC is comparing selected survey cases with data collected from medical exams to test the accuracy and validity of the survey's impressions.

By applying a standardized methodology across the nation year after year, Insel said, the CDC survey promises to tell a lot about autistic behaviors in the United States.

The survey looks at records of 8-year-olds, the age by which the vast majority of autistic children are diagnosed. Alison Singer, senior vice president of New York-based Autism Speaks, an advocacy group that funds about \$30 million in research, said the survey pulls back the veil on the huge toll autism is taking in America.

"We need to remember that behind every one of these one in 150 is a family," said Singer, the mother of a 9-year-old autistic girl. She said Congress should take heed and fund the Combating Autism Act it passed in December, which authorized \$945 million in research and other funds over five years.

"That money has to get into the hands of the researchers," Singer said, "so we can find a cause and understand what is fueling this high prevalence."

<http://www.washingtonpost.com/wp-dyn/content/article/2007/02/08/AR2007020801883.html>



Who is telling the Truth about MMR Jabs and Autism?

By GILL SWAIN

11th July 2007
Daily Mail

A first word book for babies lies open on a table in Jackie and John Fletcher's living room. Each page is devoted to one single-syllable word. Robert, their 15-year-old son, sits quietly, gazing at the simple, colourful pictures. He cannot read or say the words, but studies the images intently, just as he did when he was 13 months old, before his development was halted.

A month after his first birthday, Robert had a devastating epileptic fit. Dismissed initially as a febrile convulsion common in young children, it turned out to be the first of thousands of fits, damaging Robert's brain. His ill health has dominated his parents' lives.

Fighting for justice: Jackie Fletcher and her son Robert, who developed autism after being given the MMR jab as a toddler

The change in their bright, loving toddler was sudden. Ten days before his first fit, Robert had been vaccinated against measles, mumps and rubella (MMR). Unlike his two older brothers, who had been given the jabs in single doses, Robert had been injected with three viruses at once.

To the Fletchers, the connection seemed obvious - especially when Jackie heard about other children who had also apparently reacted to the MMR jab, developing bowel disease, autism, epilepsy, arthritis and other conditions within two weeks of having the vaccination.

Now a recent study has shown that as many as one in 58 children in Britain may have some form of autism - a far higher number than was previously thought to have been affected.

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Continued from page 38 – Whose Telling the Truth

Two of the seven academics at Cambridge University who were involved with the research believe this may be linked to the MMR vaccine. Their colleagues, including autism expert Professor Simon Baron-Cohen who led the study, reject this view.

Thirteen years ago Jackie, a former bank clerk, set up a pressure group JABS - Justice, Awareness and Basic Support. This body became the main voice of protest and source of advice for parents who believed their children were seriously damaged by the MMR injection.

Almost single-handedly she has answered the hundreds of phone calls, letters and e-mails JABS receives every week. There are 2,000 members, but many other parents have sought its information and advice about MMR.

Jackie has worked tirelessly to get compensation for affected families and force the NHS to offer single jabs.

In 1995, she contacted gastroenterologist Dr Andrew Wakefield after he published a study suggesting a link between bowel disease, autism and the measles virus, and began advising parents to request to be referred to him. She met the then Health Secretary Tessa Jowell to suggest a Government investigation.

The official view is that MMR is safe. Several recent studies have found no link between the vaccine and conditions such as autism.

Dr Wakefield's work itself has been discredited. Next week, he will appear before a disciplinary hearing at the General Medical Council to answer a number of charges, including publishing "inadequately founded" research.

The Department of Health says the fact that some children who had the MMR jab subsequently became ill is a coincidence, with experts pointing out that children receive their MMR at an age many illnesses are first manifested.

Meanwhile, Jackie and others who questioned the safety of the triple vaccine have been accused of scaremongering and putting children's health at risk. Whatever the criticisms, the campaign clearly struck a chord. The take-up rate of the MMR vaccine dropped from 92 per cent in 1995 to 1996, to below 80 per cent in the late 1990s - in some parts of London it was as low as 61 per cent.

Even now, the controversy is far from over. Last November, Dr Peter Fletcher (no relation), a former Government medical officer responsible for deciding whether medicines are safe, said he had seen a "steady

accumulation of evidence" from scientists worldwide that the measles, mumps and rubella jab is causing brain damage in certain children.

He added that if it is proven that the jab causes autism, "the refusal by governments to evaluate the risks properly will make this one of the greatest scandals in medical history".

Jackie and John feel that parents are the victims - indeed, Dr Fletcher recently criticised the "very powerful people who have staked their reputations and careers on the safety of MMR and [who] are willing to do almost anything to protect themselves".

While the controversy has raged, Jackie has had the daily struggle of looking after a son increasingly disabled by his epilepsy. Robert suffers one or two fits most days and a cluster of half a dozen every eight or nine days.

He uses a wheelchair, is incontinent and speaks only the words he knew as a baby. Yet he is good-natured and affectionate, reaching for his mother to plant a kiss on her cheek whenever she passes nearby.

Jackie sleeps alongside him as most of his seizures occur at night. In the morning, she and John lift him out of bed, wash him, change his nappy, feed him then drive him to his special school.

Taking Robert out socially causes mayhem, and holidays - rare as they are - usually end in trauma.

"Birthdays and Christmases are the most difficult times because you normally buy presents reflecting your child's development, but all I get for Robert is replacements for his toys which have been lost or broken," says Jackie.

"Occasionally, I see little flashes, maybe a sudden smile, of the boy he might have been."

To compound the tragedy, in March the family's legal battle for compensation came to an end - not because a link between the MMR jab and Robert's epilepsy has ever been dismissed in court, but because of a legal technicality.

"We recently had a report from Professor Marcel Kinsbourne, a Britishborn paediatric neurologist, now working in America, who told us that Robert would have qualified for compensation in the U.S."

He said that the measles vaccine was a 'biologically plausible' cause of seizures, that Robert's first fit happened soon enough after his MMR jab to be caused by it and that there was no evidence of any other cause.

He thought "on the balance of probabilities" that the jab caused Robert's epilepsy, and a barrister estimated Jackie would have had a 60 per cent chance of success in the

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States, though now it was too late.

When Robert had his injection on November 23, 1992, the practice nurse noted an incorrect batch number. As a result, Jackie's lawyers spent years pursuing compensation from - as it turned out - the wrong manufacturer.

When they discovered the makers were actually the American firm Merck, it was too late. Jackie was suing under the Consumer Protection Act which has a time limit of 10 years in which actions must be launched; this period had expired.

At her home near Warrington, Cheshire, where Jackie and John live with their elder sons, Andrew, 24, and Stuart, 20, and Robert, she recalls that devastating day.

"To lose in the end on a technicality was extremely hard to accept," says Jackie, 50. "I felt I'd let Robert down. We wanted to pay for male carers to look after Robert in his own home when we can't do it any more.

"But I rationalised that Robert was no worse off than he'd been before."

Robert was born in 1991. She had given up her job to look after her children, and her husband John was doing well as a manager of transport services for Cheshire County Council. "We were delighted to have a third boy. And Robert seemed like a perfect, healthy, contented baby," says Jackie.

When it was time for Robert's immunisations, a health visitor explained to her about the new triple vaccine. "She told us how it had been used in the U.S. for 20 years without problems and that the diseases it prevented were deadly.

"She said the possible reactions were minor, such as a slight rash or swelling, or a small rise in temperature. My dad drove us to the appointment - he still holds it against himself. There is guilt at all levels.

"As a parent, you want to do the best for your children and to protect them. I have beaten myself up about having held Robert on my knee and consoled him when he cried as the needle went in."

Robert seemed a happy, normal little boy, but ten days later an afternoon of drowsiness culminated in his first fit. "I found him with his head twisted upwards, his eyes rolled back, his limbs jerking violently and burning up," says Jackie.

"It lasted three minutes, but afterwards his eyes glazed over, his breathing came in shallow gasps and his body was floppy. It was terrifying: I thought he was dying.

Rushed to hospital, Robert was covered in pink blotches. He woke up screaming and vomited several times before falling into a deep sleep.

"He woke again at midnight, stood up in his cot and said: 'Hi, Mum.' I was so relieved. I thought things were OK," says Jackie. But over the next week his behaviour changed. "He wasn't as contented. He'd always been easy to keep amused, but now he would crawl around looking for things; then, finding them, toss them away."

Three months after the first fit, Robert had another, then another after two weeks and a fourth after ten days. By then, his left side had weakened and he was losing the little speech he had. His father John says: "In photos at that time, he looks pathetic. The light had gone from his eyes."

Whenever the Fletchers took Robert to hospital appointments (he saw a range of specialists, including a neurologist; an ear, nose and throat consultant; and a haematologist), they encountered other parents who said things like "our child was fine until MMR".

They found they had been told the same things by doctors: that there was no connection with the vaccine because it contained dead versions of the viruses, or that they had never come across this before and would take a special interest.

Jackie began trawling through medical books and in 1993 discovered fits can be caused by infections such as measles and mumps. She contacted a local health official, who had come across several cases, and he put a small advert in the local paper asking other parents of vaccine-damaged children to contact him in order to gauge the extent of the problem. A public meeting was attended by 150 people, and Jackie set up JABS.

John, 55, says the negative reaction to their efforts have made him cynical. "We thought that if parents were concerned, the authorities would try to make the single vaccines easily available, not close ranks and pull up the drawbridge," he says.

"It was a shock to discover no one was interested. Tessa Jowell promised to hold a forum on Dr Wakefield's work, but it was a private meeting of 37 experts chosen by the Department of Health behind closed doors.

"The neurologist told us that Robert's ill health was 'probably the vaccine, but why pursue as you'll never get anywhere?'"

The family think Dr Wakefield is being treated unfairly. "Parents have nothing but praise for him. No child has been injured by him.

"It's appalling that the Government is determined to

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crucify Dr Wakefield to send a message to doctors never to question a procedure it has decided to follow," she says.

Meanwhile, Jackie and John have faced a long personal battle for compensation for their son.

They appealed to the Government's Vaccine Damage Unit, which compensates children damaged by any kind of vaccine, but their case was dismissed as they were unable to prove the "biological mechanism" that linked Robert's jab to his brain damage.

So, the family joined 1,400 other parents in suing the pharmaceutical companies. After many battles over legal aid and running out of time for action, all of these cases have failed.

"Families have been told that their child is an acceptable casualty of the vaccination system or an insignificant detail compared with the numbers saved from the diseases it prevents, but what happened to Robert is not acceptable," says Jackie.

"Part of me still believes that a man on a white horse will come galloping up with the answer and justice will be done. Deep down, I feel that I have caused all Robert's problems by taking him for the MMR jab and I'm trying to fix it for him. But I can't."

• JABS can be contacted on 01942 713565 or via www.jabs.org.uk

http://www.dailymail.co.uk/pages/live/articles/health/health_main.html?in_article_id=467323&in_page_id=1774



Another Study Finds No Link Between MMR Vaccine and Autism

By Steven Reinberg

February 5, 2008

MONDAY, Feb. 4 (HealthDay News) -- Yet another study has found no evidence of a link between the measles, mumps and rubella (MMR) vaccine and autism.

The British authors of this latest research said theirs was the third and largest study that has looked for a connection between the MMR vaccine and autism, and has failed to find one.

"I think it's fabulous that they have scientifically, God willing, put this issue to rest, although parents will not

agree with it and those people who are proponents of measles as the cause [of autism] will find a problem with the paper," said Dr. Pauline A. Filipek, an associate professor of pediatrics and neurology at the University of California, Irvine.

The British researchers based their finding on a sample of 240 children -- 98 who had been diagnosed with autism, and two comparison groups: 52 children with special educational needs who were not autistic; and 90 children who had no developmental problems.

All the children had received the MMR vaccine, but not all had had both doses. The researchers checked blood samples from all the children to look for the presence of persistent measles infection or an abnormal immune response. An abnormal response would have been indicated by circulating measles virus or increased antibody levels.

The researchers found the blood analysis showed no difference in circulating measles virus or antibody levels among the children. The finding was the same whether the children had one or two doses of the MMR vaccine.

In addition, autistic children and those with special educational needs were less likely to have had the second dose of the MMR vaccine, which may mean that parents were concerned about their children receiving the second dose because of their developmental problems.

The findings are reported in the February issue of the Archives of Disease in Childhood.

The controversy about the potential connection between autism and the MMR vaccine began in 1998 when British researcher Dr. Andrew Wakefield published a study in The Lancet that claimed the vaccine caused brain damage, resulting in autism.

Since that time, numerous studies have failed to confirm Wakefield's hypothesis.

"This study refutes the data Wakefield presented 10 years ago," Filipek said.

Filipek thinks parents hold onto the MMR vaccine-autism theory because "it gives them something to grasp onto that could be altered to prevent future cases of autism."

Dr. Paul A. Offit, director of the Vaccine Education Center and chief of infectious diseases at Children's Hospital of Philadelphia, also thinks the new study provides more conclusive evidence that there is no connection between autism and the MMR vaccine.

"The whole premise by Wakefield, that the measles component of [the] MMR vaccine caused a chronic intestinal inflammation that allowed harmful proteins to

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enter the bloodstream and ultimately the brain, causing autism, has not one shred of scientific evidence in its support," Offit said.

This new study follows the release last week of a study that showed the mercury preservative thimerosal, used in childhood vaccines until the turn of this century and thought by some to be associated with autism, doesn't remain in an infant's body long enough to build to dangerous levels.

And it follows a series of other studies, including a large-scale U.S. Institute of Medicine review in 2004, that failed to uncover a link between childhood vaccines and autism.

Current estimates by the U.S. National Institutes of Health say that one American child in 150 has been diagnosed with autism, although experts wonder if that increase is due in part to better diagnoses and a broader definition of the disorder.

http://www.washingtonpost.com/wp-dyn/content/article/2008/02/04/AR2008020402489_pf.html



Studies Find Mercury in Much U.S. Corn Syrup

Former FDA scientist finds detectable amounts in 9 of 20 samples

Reuters
January 27, 2009

WASHINGTON - Many common foods made using commercial high fructose corn syrup contain mercury as well, researchers reported on Tuesday, while another study suggested the corn syrup itself is contaminated.

Food processors and the corn syrup industry group attacked the findings as flawed and outdated, but the researchers said it was important for people to know about any potential sources of the toxic metal in their food.

In one study, published in the journal Environmental Health, former Food and Drug Administration scientist Renee Dufault and colleagues tested 20 samples of high fructose corn syrup and found detectable mercury in nine of the 20 samples.

Dufault said in a statement that she told the FDA about her findings but the agency did not follow up.

Dr. David Wallinga, a food safety researcher and activist at the nonprofit Institute for Agriculture and

Trade Policy, said he followed up on the report to find mercury in actual food.

"When I learned of that work, I said that is interesting but we don't just go out and eat a spoonful of high fructose corn syrup," Wallinga said in a telephone interview.

"We went and looked at supermarket samples where high fructose corn syrup was the first or second ingredient on the label," he said. These 55 different foods included barbecue sauce, jam, yogurt and chocolate syrup.

"We found about one out of three had mercury above the detection limit," Wallinga said.

'Dubious significance'

The Corn Refiners Association challenged the findings. "This study appears to be based on outdated information of dubious significance," the group said in a statement.

Wallinga and colleagues said they believed the mercury got into the food during manufacture, at plants that use mercury-grade caustic soda produced in industrial chlorine plants, although his team was unable to show this.

"Our industry has used mercury-free versions of the two reagents mentioned in the study, hydrochloric acid and caustic soda, for several years," Audrae Erickson, president of the Corn Refiners Association, said in a statement.

Wallinga said the studies were based on samples taken in 2005, the most recent available.

Many studies have shown that fish can be high in mercury. Wallinga said consumers should know about other potential sources so they can limit how much they eat. "The best mercury exposure is no exposure at all," he said.

"Even at low levels methylmercury can harm the developing brain. The last thing we should intentionally do is add to it," Wallinga added.

He said his team did not test foods that did not contain corn syrup to see if they were also high in mercury.

URL: <http://www.msnbc.msn.com/id/28877253/>



Energy-Savings Bulbs Contain Mercury

Daily Monitor
Letters to Editor

I write in response to Steven Shalita's article about energy saving bulbs that was published in The New Vision of January 19. (2009) *Continued on page 43*

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I would like to inform the World Bank that these bulbs contain mercury, a dangerous substance that is currently being phased out world wide. Moreover, there are no means for disposing of the mercury available in the world as yet.

Apart from mercury in fluorescent bulbs, mercury in Uganda is also used in thermometers, thermostats, dental amalgam, sphygmomanometers and rechargeable batteries among others.

The fluorescent bulbs being promoted by the World Bank contain small quantities of mercury and emit ultraviolet light which has a negative impact on people who are sensitive to light.

Mercury is both harmful to human and environment. It affects the nervous system. Very young children are more sensitive than adults to mercury.

Prolonged exposure to high levels of metallic, inorganic, or organic mercury can permanently damage the brain, kidneys and developing foetus. Short-term exposure to high levels of metallic mercury vapour may cause effects including lung damage, nausea, vomiting, diarrhoea, increases in blood pressure or heart rate, skin rashes and irritation of the eyes.

Mercury may also lead to death. A lethal dose of mercuric chloride was estimated to be 10-42mg Hg/kg for a 70-kg adult (Gleason et al 1957).

Has the World Bank put in place measures to ensure the proper disposal of the bulbs? For example, in Mauritius energy-saving bulbs were distributed and a lot of money was spent relocating them.

CONCERNED UGANDAN



ALZHEIMER'S DISEASE AND THE ALUMINUM IN OUR FOOD

Food coloring (cereals and candies) is just one of the growing sources by which Aluminum is being put into our bodies

John Enright

Have you ever seen the following items on the ingredient label of the food you are preparing or about to eat?

- aluminum sulfate
- alumino-silicate
- sodium alumino-silicate

- aluminum phosphate
- aluminum lake colors
- Al lake colors

If you have not seen these ingredients, you are probably not reading the labels of your salt, cake mixes, bakery products, baking powders, candies, etc.

Should you be concerned with reading the ingredients labels, with regard to the above mentioned forms of Aluminum? My research, initiated by watching the insidious progression of Alzheimer's Disease leading to a family member's death, would indicate we all should be very concerned, well informed, and quite alarmed at all the avenues through which Aluminum is being introduced into our bodies. It is toxic and is being processed into a variety of our foods, and other consumables.

I'm sure you have heard the news and rumors of the Aluminum cans, antiperspirants, and pots & pans. Some is fact and some is false, but the truth in regards to all the different ways Aluminum is introduced into our bodies will give you the creeps! Most likely you have no idea how many foods have Aluminum as part of the ingredients.

First, we should ask: WHY ALUMINUM IS ASSOCIATED WITH ALZHEIMERS DISEASE?

I've provided this information on the below medical studies on the association of Aluminum and Alzheimer's Disease for your own investigation. I have included other sources of the information I have gathered that has enhanced my knowledge on this subject, at the end of my Web page. In addition, you will find both important and provocative information scrolling at the bottom of the page.

There are many studies focused upon the Aluminum/Alzheimer relationship, the below are major studies upon which the rest of the studies revolve. All the studies are from professional medical and science periodicals. You see for yourself, under the column "Findings" that 11 out of the 16 studies pointed towards a connection of Aluminum and Alzheimer's Disease. I learned of these studies from materials provided by the Alzheimer Association. They provide a wealth of information about Alzheimer's Disease. However, all "scientific" studies are dependent upon the integrity of those who provide the information to them. Unfortunately, the medical and science fields are extremely competitive in jobs and funding. As a result we get both good and bad science. At the time of my initial research was being done, I had a lot of time on my hands to read and research these and other articles to find they pointed to still more studies and articles.

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Studies investigating the relationship between ALZHEIMER'S DISEASE and ALUMINUM in the brain:

ALZHEIMERS/ALUMINUM STUDIES			
YEAR	HEAD INVESTIGATOR	AFFILIATED INSTITUTION	FINDINGS
1965	Klatzo	NIH	Injection of animal salts produced changes in the animal brains. <i>J.Neuropathol Exp Neurol 24:187-199, 1965.</i>
1970	Wisniewski	Einstein Medical Center	Changes in animal brains different from those in Alzheimer's Disease. <i>J.Neuropathol Exp Neurol 29: 163-176, 1970.</i>
1973	McLachlan	University of Toronto	Brains of Alzheimer's Disease victims have higher Aluminum content.
1976	Alfrey	Denver V.A. Hospital	Dialysis dementia attributed to Aluminum. <i>NEngl J Med 294: 184-188, 1976.</i>
1979	Ellis	University of Sheffield	Aluminum affects bones of dialysis patients
1980	Perl	University of Vermont	Aluminum in Alzheimer's Disease "tangles" in brain. <i>Science 208: 297-299, 1980; Neurotoxicology 1: 133-137, 1980.</i>
1981	Markesbery	University of Kentucky	Aluminum not elevated in Alzheimer's Disease brains. <i>Ann Neurol 10: 511-516, 1981</i>

ALZHEIMERS/ALUMINUM STUDIES			
YEAR	HEAD INVESTIGATOR	AFFILIATED INSTITUTION	FINDINGS
1982	Perl	University of Vermont	ALS and Parkinson dementia on Guam associated with Aluminum. <i>Science 217: 1053-1055, 1982.</i>
1985	Greger	University of Wisconsin	Metallic Aluminum contributes very little to dietary intake
1986	Edwardson	Newcastle General Hospital	Aluminum in core of senile patient plaques
1986	Drezner	Duke University	Aluminum may not cause bone disease
1987	Perl	Mt.Sinai Hospital	Route of entry of Aluminum into body may be inhalation. <i>Lancet1987: 1028</i>
1988	Wisniewski	N.Y. State Institute for Basic Research	Aluminum not found in cores of senile patient plaques
1989	Martyn	University of Southampton	Frequency of Alzheimer's Disease related to Aluminum in drinking water
1990	McLachlan	University of Toronto	Loss of cognitive function from exposure to McIntyre powder
1990	McLachlan	University of Toronto	Aluminum can be chemically extracted from brains of Alzheimer's Disease patients, clinical results being evaluated

If this informative leads you do a little research of your own, a good place to start is on the World Wide Web. You will find disagreement exists concerning the actual role Aluminum plays in it's connection with the disease but most agree it is found in damaged areas of the

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brain. However, you will find some early studies claimed they didn't find the Aluminum in Alzheimer's Disease victims. At first glance it appears the participants of the study or studies, replicate previous experiments that found Aluminum in the brain of victims. Later in the paper it is announced that some changes are made. Apparently the devices that identify and measure the brain samples are not always available, for whatever reasons. This leads to changing part of the study because the various devices read brain matter differently, and require different amounts of brain matter for it's analysis. While the intentions are good, the results are illegitimate, under traditional scientific method! I know these are strong words, but I've always been taught that it is necessary to replicate an experiment in order to verify, challenge or disqualify the initial findings. I was after plain truth; time after time $2+2=4$, unless you are seeking attention.

But that is altogether another story, perhaps better discussed under the heading of intellectual entropy.

So what makes me think I am on the track of the truth? While researchers have speculated diverse pathogenesis of Alzheimer's disease, the association between Aluminum and Alzheimer's has persistently risen to the surface over many years of many studies. Another reason is the fact it is cited as a neurotoxin.

One of my sources pointed out that there were fewer than 5 articles in 1975 that regarded Aluminum as the culprit as a general physiological and neurotoxicant, yet by 1985 more than 35 articles were published! (G.H.Mayor-commentary) Mayor, in his commentary, also points out, "Perhaps the time has come to emphasize lessons learned from the azotemic populace. In this population, aluminum has been incriminated in endocrine suppression, anemia, osteopathy, renal dysfunction, ferritin metabolism, and altered calcium metabolism. Many of the changes in aging also involve endocrine dysfunction, anemia, bone disease (osteoporosis), renal dysfunction, altered ferritin metabolism, and particularly altered calcium metabolism. Could these parallels be merely coincidental.....?"

What measures are being taken to combat Alzheimer's Disease? There are those who have taken the route of pharmaceutical endeavors to alleviate or cure.

Alzheimer's Disease, although most all of those have been strictly intended to slow down the progress.

Unfortunately, most every concoction that claims to have been a proven success in dealing with Alzheimer's

patients, eventually, has been taken off the market after millions, if not billions of dollars in profits were taken from those desperately trying help their loved ones. Why? Because these medicines did not work! How can that be! How many years are we told it must be tested on animals? And then, after that how many years it must be tested on humans, before the authorized medical and or government institutions approve its use as a prescribed drug? What about all the case studies that showed promise? What about all those years of testing, approved by the "authoritative" institutions? The reasons could be many folded, you name it: money, incompetence, dishonesty, lousy public school and-or college education, and-or dishonesty? But there is another question!

Why do they ignore the basic strategies in combating all sickness and ill-health that may be caused by something in the environment: - *PREVENTIVE MEDICINE* - warning, informing, educating, advising people of the exposure to aluminum? Isn't the public advised about possible problems with eating foods high in fat, cholesterol, salt, and black pepper? Why does the doctor and the hospital want you to fill out forms for identifying your known allergies? Because you may have dangerous reactions to some medications that are harmless to another person. Aren't those same scientists, who are hoping to find a human gene responsible for obesity still, warning people about their diets? How did saccharine end up being on a 'known carcinogen' list for decades and now it is removed from that list. I would bet millions of dollars were lost in this sweetener scare, and millions were made by medicines that did nothing! We can understand mistakes are made, but what about whoppers like these.

I just did a quick web search, (at the time of this update of my information), to find a study report dated 09/05/00 that examined a study in France which was being expanded to verify their findings of a relationship between high levels of Aluminum measured in the drinking water in areas that report a higher incidence of Alzheimer's. Unfortunately, they need to involve a greater population to make the indications conclusive. Does this mean that more people need to be put at risk, even though there is some indication of historical significance under similar scenario?

My information gathering took place over a period of few years, and is ongoing. I have included some of the periodical sources I managed to save. I regret not having saved all of it, but I had no idea I would pursue this as much as I have, and there was so much additional information that helped in educating me, that I cannot remember but would have loved to share with you.

My mother dealt with this disease for many years, as did

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her sister, my grandmother, and, by all indications, my great-grandmother. When I inquired about the disease I found that the medical community's knowledge was fragmented and dis-apportioned. They would like to describe it as 'specialized'. When I had the opportunity to meet those in the medical community who were involved or related more than casually with some facet of Alzheimer's Disease, I would inquire and probe to find out what I could, or to seek out new directions for information. I was quite surprised, when I inquired for opinion and-or insight on various studies and informational articles about Alzheimer's Disease, to find some were unaware or less aware than others were. Even when I spoke to doctors who were involved in an Alzheimer's Disease special program, regarding developing and-or testing medicinal treatments at the University Hospital in Denver, they had no idea of all the avenues aluminum may enter our bodies, nor were they familiar with the work of some of the leading studies investigating the aluminum relationship! Is everyone too busy to gather all the available information? I realize that their focus is narrowed upon a particular solution. But without 'all' the information, what makes them think their solution is relevant? Perhaps they are dependent upon the little time made available around the schedule due to their own practice? Is the art of funding, which is a legitimate function, so important that it robs participants of precious research time, in order that they may produce 'apparent' results?

Getting those research dollars is a competitive necessity. I embrace competition as a healthy endeavor that feeds our progress towards many areas that benefit mankind. To be sure, it is not without corruption, but competitive people usually want to be first and competitive people usually hate being wrong.

I am not trying to insult the medical community; I am looking for explanations. Without a proper explanation, I am forced to look around the world, to find similar situations and find out why it exists. And guess what! There are 'apparent' similar situations. These other situations, found on the European continent, revolve around medical costs and the elderly. Maybe the cost for helping our senior citizens, those most at risk for developing Alzheimer's Disease, is too heavy a burden on society? These scenarios tend to sound 'sci-fi' and - or conspiratorial. I will touch upon them at the end of this report.

Recent studies, as well as past studies agree, the majority of findings point to an Alzheimer's Disease – Aluminum connection. However, with the advancement

of genetics, a new banner of a new approach has been raised, to find a genetic condition associated with Alzheimer's Disease.

There has been the announcement in the news several times over many years of a gene being found that is in some way responsible for the disease. I find it hard to believe they will find a gene whose singular function is to cause Alzheimer's Disease. Once they do find a gene with some association with the condition, they will then have to map the millions of bits of DNA information which designate its function(s). Which could put off a cure for years, if there is a cure from this approach!

The recent announcement regarding the completion of human genome mapping would tend to be at odds with the idea that all we have to do is find the responsible gene. To begin with, only one third of genes have been classified by function (Patrizio). The DNA's molecular coding dictates the all the information on the genome level. This is an incredibly complex coding system that carries its information digitally, it is self replicating, it is redundant, and apparently error correcting! Because of the repeating information this is sometimes referred to as junk DNA. I must admit I do not know if this creates more hurdles for those using genetic manipulation to find a cure.

This high-tech razzle-dazzle approach has over-shadowed the substantiated possibility of the Aluminum exposure a contributing factor. Maybe I'm old fashioned, but the elimination of the cause or conditions required for the proliferation of a disease was a goal through out most of history. I'd like to have an explanation of how genetic engineering is more desirable than eliminating the adding of Aluminum to our food.

Why or what made the scientists look at Aluminum as a factor? It is because of the effects on those exposed to aluminum dust explosions at mines sites, and the side effects on patients of early dialysis machines. There were similarities noted in the condition of people exposed to aluminum in these manners, and the conditions in Alzheimer's disease patients. Like tobacco, why isn't everyone affected the same way from the same amount of exposure?

Upon my first knowledge of Alzheimer's Disease and the association with Aluminum, I heard we were getting aluminum from pop cans, anti-perspirants, cooking utensils such as pots and pans. Scientists heard about these things too, and on that basis they made statements that these sources were not enough to blame aluminum, or that we couldn't possibly absorb enough from these items. The uses found, and realization of money saved by adding Aluminum into various foods and consumable

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products is ever increasing. Unfortunately, in this case, people whom we depend upon for their knowledge and expertise were unable to keep up with the growing possibilities of our exposure to Aluminum. Apparently they relied upon the same information to which all of us had been exposed.

Aluminum is the third most plentiful substance in the crust of the Earth. It has been a blessing in construction and building the largest to the smallest devices we all use, and at a reasonable cost.

My research indicates it could also be playing a major roll in making the food we eat more affordable. I am not speaking of packaging, shipping, or such.

The Aluminum, which is used in manufacturing, creates waste products that are Aluminum compounds. Perhaps it is coincidence, but these Aluminum compounds which are a by-product waste are the same forms of Aluminum being added to our foods!

Next time you use a non-dairy creamer in your coffee, or a package of salt at the fast food restaurant, look at the ingredient label. Most likely you will see the word 'aluminum' or part of the word 'aluminum' hyphenated with a different ending. What about the pop/soda cans? I believe they all have coatings on the inside preventing you from getting Aluminum. What about the antiperspirants? This is most definitely a way for aluminum to get into your body! I advise you to lookup, on the Internet or in books, and see how antiperspirants work, and then look up the theories of how, why, and what the aluminum does in the brain works. It will freak you out! Pots and pans made of aluminum? Yes, this can be a good way to consume aluminum that is coming from the pan, especially when cooking acid fruits and/or vegetables. Personally I do not use any Aluminum cooking products! Many folks ask me about the Aluminum pans with the different coatings. I have no information regarding the coatings, of various Aluminum pots and pans, nor whether it adds to or blocks the aluminum from the food. I never received definitive information from the manufacturers I contacted.

I have 12 pages of grocery items most by brand name and by specified product. Some times I can only give you a group which you must read the labels yourself. It is wise to always keep up with the ingredient labels. As an example, in the past I found, by reading the label, a salt I used added a form of Aluminum to their salt, as an anti-caking agent. However, during my early years of research, the label of salt that I had used stopped using the Aluminum. Meanwhile, I had decided to use

salt. Some brands of aspirin have added aluminum as a buffering agent. Some did in the past and some my still.

I provide my research information, for the purpose of knowledge.

This research, spawned from my continued collection of information and studies of Alzheimer's Disease, led me to the point of reading the labels of everything in the grocery store that was consumable. I have collected food category 'types' and brand names of consumables that contain aluminum and (or) forms of Aluminum, which I identify. When possible, I recommend by brand name, non-Aluminum substitutes. Obviously, across the world brand names change, and some company names are unfamiliar. In that case, my research provides you the ability to compare your preferred brand names to the list of food items I provide, so that you know when to be suspicious of foods that might contain Aluminum.

A minor draw back is the continually changing product choices, as well as new brand names. However, I established very plain and simple guidelines by which we can recognize when to suspect that a consumable may have aluminum in them.

An example: If several brand names of frozen pizza have aluminum in the ingredients list, it only makes sense to read the labels of all frozen pizza, regardless of the fact it is or isn't on my list!

I do not believe that laws are the answer to make the changes in matters such as these. It is your own responsibility to take care of yourself. The people who provide these aluminum containing products are not trying to hurt you. Quite the contrary, they are trying to keep down the price of foods and improve our standard of living. In addition, the ability for them to continue is dependent upon profits to keep the businesses operating. You will find that some of the non-Aluminum substitutes do cost a little more. However, if larger quantities of these products are bought prices may even drop!

Further we must consider, why do some people who smoke live long lives while others fall victim to the diseases caused by their habit? It could be that not all people will react to the Aluminum in their diets in the same way. Is Alzheimer's Disease really a blood brain barrier disease? In fact, some amounts of Aluminum have been found in healthy brain tissues! Perhaps it is here, that genes could make a difference. However, it may be far more complicated than anyone can imagine. It could be one gene that is directly responsible for being prone to Alzheimer's Disease, or it could be a vast domino effect from gene(s) whose full code of instructions and properties as yet to be unraveled! Then we must determine could other things happen as a result of re-programming that specific gene.

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Continued from page 47 – Alzheimer’s Disease and the Aluminum in our Food

Maybe it has multiple functions or gate functions?...Recently it was announced that scientists were able to cultivate tissue from fat that could be used in the brain to replace the function of the damaged tissue in Alzheimer's patients. They added it is not a cure, it will merely slow down progress.

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<http://www.geocities.com/pulone8/pulone8index.html>



Beer in Aluminum Bottles on the Way

Your suds should stay colder for an extra 50 minutes

The Associated Press
August 24, 2004

PITTSBURGH - How much would you pay for a bottle of beer that stays cold nearly an hour longer?

Pittsburgh Brewing Co., maker of Iron City Beer, is asking an additional \$1 per case.

The brewery has partnered with Alcoa Inc., the world's largest aluminum maker, to produce aluminum bottles that keep beer colder for as much as 50 minutes longer, Alcoa officials said.

About 20,000 cases of the new aluminum bottle beer are en route to as many as 28 states and should be on shelves this week, Alcoa and Pittsburgh Brewing said Tuesday.

The bottles have three times the aluminum of a typical beer can. That gives them superior insulation, Alcoa

spokesman Kevin Lowery said.

It's not the first time Alcoa has teamed up with the local brewery to put out a new product. In 1962, the two put the first pull-tab beer cans on shelves, freeing beer drinkers of the need to carry openers with them.

"We think it's much better than a can and as good or better than glass," said Joe Piccirilli, vice chairman for Pittsburgh Brewing. "There's no doubt in my mind that this has the same potential as the pull tab we did with Alcoa."

Iron City wants to expand sales. But the aluminum bottle may be more important to Alcoa. The aluminum giant wants to win back a share of the market it lost to beer bottles — both glass and plastic, which are now common at sporting events nationwide.

About 40 percent of all beer consumed comes out of cans, 43 percent from bottles and 8 percent from the tap, according to the Beer Institute, which tracks industry trends. Bottles, however, have gained ground over the past decade.

Plastic bottles make up only 0.5 percent of all beer sales, according to the Beer Institute. But having aluminum bottles at sporting events would introduce the product to thousands, who might buy a case for home.

Pittsburgh Brewing said it won't drop glass bottles or cans from production.

Some people say they can taste the difference between beer in cans and bottles.

Lew Bryson, an author of two books on breweries, said those complaints are psychological, since the aluminum is coated. But, he said, there may be a lingering taste when the seal of an aluminum can is broken. The aluminum bottle could eliminate that, he said.

One microbrewery based in Missoula, Mont., has been using aluminum bottles. Heineken released a limited edition aluminum bottle last year.

Aluminum bottles also have proven successful for a few breweries in Japan, but Iron City is the first company in North America to ship the bottles nationally, company officials said.

Alcoa and brewery officials say the biggest selling point of the bottle may be its appearance.

Bryson agreed, and said plastic bottles have also been problematic at some bottling plants because they are lighter than glass and can become jumbled.

But he said the advantages may not outweigh the price. "It seems a bit like an answer in search of a question," he said.

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Continued from page 49 – Beer in Aluminum Bottles

Pittsburgh Brewing said aluminum bottles cost more than twice than glass — about a nickel more per beer — but Alcoa and the brewery said the cost will come down if other beer companies follow suit.

Pittsburgh Brewing, which sells about 6 million cases of beer annually, has opened a six-figure marketing campaign to try to make the idea stick.

“I think in the next 12 to 18 months, more people are going to get into this like we are,” said Piccirilli. “We’re not kicking the tires.”

URL: <http://www.msnbc.msn.com/id/5810359/>



FDA: Drug Patches can cause MRI Burns

Some are missing a key safety warning, agency states

The Associated Press
March. 5, 2009

WASHINGTON - Need an MRI scan? Tell the doctor if you use a nicotine patch or any other medication patch — or you'll risk a burn during the MRI.

Patches that ooze medication slowly through the skin are becoming more popular, from over-the-counter nicotine patches to prescription patches that deliver estrogen, pain medication, Alzheimer's or Parkinson's drugs, even an anti-nausea drug for chemotherapy recipients.

But the Food and Drug Administration just discovered that some are missing a key safety warning about MRI compatibility.

More than a quarter of the 60 different drug patches sold contain traces of aluminum or other metals in their backing, the part that makes them stick to the skin, estimated Dr. Sandra Kweder, the FDA's deputy drug director.

You can't see the metal; the patch even may appear completely clear. But affected patches contain just enough metal to conduct electricity, meaning a patch worn during an MRI scan can overheat and cause a skin burn similar to a bad sunburn.

The FDA recently learned of a few patients who suffered patch burns, none severe. In January, tracking the source of one burn, officials found that Teva Pharmaceuticals' fentanyl painkiller patch lacked the MRI warning. The FDA then found a variety of other drug patches also lacked the warning.

On Thursday, the FDA issued a public health advisory: Tell your doctor about any medication patches, so the professional can decide which should be removed before an MRI, how soon before the scan, and when it can be reapplied.

"If there's any uncertainty, just don't wear it in the machine," Kweder said. "It's just the smart thing to do."

As for patch makers, FDA is reviewing every product's label to be sure ones that are supposed to carry the safety warning do. Some may be missing because a patch was reformulated to add metal after its label was written; other times FDA acknowledged it just didn't ensure the warning was present in the first place.

Now the agency is considering having an MRI warning somehow be put on the individual patch, not just the box it comes in. "We have to look at the different configurations of these patches and what's going to be practical to allow for this," Kweder said.

<http://www.msnbc.msn.com/id/29532245/>



Continued from page 35 – Good News....

regularly washing children's hands and toys; frequent washing of floors and window sills, where paint dust can collect; and avoiding hot tap water for drinking, cooking and making baby formula. Hot tap water generally contains higher lead levels from plumbing than cold water.

<http://www.msnbc.msn.com/id/29454444/>



Continued from page 40 – Smilax Officinalis

Flavonoids in sarsaparilla have been documented to have immune modulation and liver protective activities. Sarsaparilla root attacks and neutralizes microbial substances in the bloodstream through its antibiotic activity. By acting as a diuretic and diaphoretic (promotes perspiration), sarsaparilla encourages excretion of toxins and waste materials and acts as an antidote for various poisons. Heavy metallic contaminants in the blood can be extracted from the system with the judicious use of sarsaparilla. Sarsaparilla exerts strong power over fibers and tissues of the nervous system that may be particularly beneficial to the Gulf War veteran.



Blackherbals at the Source of the Nile UG LTD.

COME BACK TO YOUR ROOTS



Mission Statement

Our aim at **The African Traditional Herbal Research Clinic** is to propagate and promote the awareness in Afrikan peoples at home and abroad of their health, biodiversity, history and cultural richness. We gather pertinent information on these issues and disseminate these freely to our people in Uganda, the rest of the continent, and anywhere in the Diaspora where Afrikans are located.... One of the main ingredients for increasing poverty, sickness, exploitation and domination is ignorance of one's self, and the environment in which we live. Knowledge is power and the forces that control our lives don't want to lose control, so they won't stop at anything to keep certain knowledge from the people. Therefore, we are expecting a fight and opposition to our mission. However, we will endeavor to carry forward this work in *grace and perfect ways*.

***“Where there is no god, there is no culture.
Where there is no culture, there is no
indigenous knowledge. Where there is no
indigenous knowledge, there is no history.
Where there is no history, there is no science
or technology. The existing nature is made
by our past. Let us protect and conserve our
indigenous knowledge.”***

CALENDAR OF EVENTS

SPECIAL EVENT: CLINIC OPENING

PLACE: AFRIKAN TRADITIONAL HERBAL RESEARCH CLINIC

TIME:

Afrikan Traditional Herbal Research Clinic
1175A Mukalazi Road, P.O. Box 29974
Bukoto, Kampala, Uganda East Africa
Phone: +256 (0) 782 917 902
Email: clinic@blackherbals.com

ADDRESS CORRECTION REQUESTED

Herb of the Month

Smilax Officinalis Sarsaparilla

Many practitioners believe that the best approach to detoxification is a gradual, but ongoing process. There are a number of herbs that historically have had an impressive reputation as detoxifying and blood purifying agents. A popular term that an herbalist might use for agents that clean up the bloodstream is an "alterative," meaning the constituents of the blood are gradually being changed from a state of poor health to one of wellness. The herbs facilitate the filtration of toxins and wastes while killing poisons and balancing nutrients and plasma substances. A number of herbs have a similar purpose in the blood purification and liver detoxification process. Often, herbalists combine herbs of similar likeness into a complex, believing the synergistic value of the herbs delivers greater efficacy than a single herb.

Sarsaparilla root has been famous in the West since 1574, when a French physician described its use in treating syphilis. It is a valuable herb used in glandular balance formulas. Its stimulating properties are noted for increasing the metabolic rate.

Various Smilax species are used to treat infections and inflammation--especially those affecting the skin and intestines--in many countries including India, China, Europe, the United States, Brazil, Guatemala, Saudi Arabia and Africa. Smilax in China is taken in decoction for boils and abscesses, rheumatoid arthritis, urinary tract infection, enteritis, diarrhea and as an antidote to mercurial poisoning -- nearly the same indications as sarsaparilla.

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