

Views & News

August 2009

An independent publication that does not necessarily reflect the views of the DOC & The Association of Orthopathic Practitioners, nor the editors.

In This Issue

Latest news with the GOsC

AGM

Safety in Practice

Anthony Mathews

Codex Alimentarius

Mercury linked to Allergies, Autism & Alzheimer's

Dear All

Yes we are still active as a council and behind the scenes work has been going on to try to gain a solid footing and recognition, with the possibility of registration with the GOsC for those who would wish to apply under the new opportunity presently being offered.

Last year (2008) four members of your council were invited to meet the "new" registrar and chair of the GOsC in what was a precedent in our continuing need for recognition taken away following the transition process. The meeting was chaired by the Right Honourable Member of Parliament Mr Roger Gale.

Roger Gale as you may be aware was instrumental in the initial fight with the GOsC and in alerting parliament to the detrimental registration process back in the year 2000. He also initiated a secondary debate in parliament that brought about an investigation into the process of registration that was subsequently "brushed under the carpet" by various government bodies.

However the DOC was directly approached for a meeting last year by the GOsC and the upshot of it was that it appeared a new relationship was about to be built with the possibility of registration for our members. This new registration process, brought on I believe by European regulations of qualification recognition, has been opened for those who had obtained a qualification in Osteopathy and practiced as an Osteopath before 9 May 2000, but have not practiced as an Osteopath since that date.

As far as I am aware there have been only two DOC members contacted in respect of an application for registration, and no other members have been notified apart from the GOsC website asking those to apply who did not register in the first window.

First of all one must consider if the new registration process is biased against those applying. I for one do not believe there can be an unbiased process considering the GOsC past history.

However if they prove the registration process is not prejudice there may be room for those whose qualifications were gained prior to May 2000 to apply for registration under this new opportunity.

We at the DOC have requested a further meeting with the GOsC through Roger Gale and are awaiting a reply as going to press. We will inform you of the result of the meeting ASAP. My question would be why did they request a meeting in the first place? As they have not even recognised that we exist apart from being a pain in the backside! We will continue to seek out advice (including legal) to ensure that we are still around.

AGM

We are still around and this years AGM will be at Wood Norton Hall as usual and will be on 10 and 11 October. So if you have anything to say please make time for this social occasion in your diary and come and voice your views. Please see the Invitation and Application Form which is attached.

Members are also welcome at the next council meeting on the Saturday 1st of August at the Pastoral Centre, St Albans. Herts.

Looking back

I note in a previous newsletter that it was sufficient in law to state that “you are not registered under the 1993 Osteopaths act”. This clearly notifies patients of that fact and you are not committing any offence under section 32. However, whether it is enough in today’s ever changing legal system with the GOsC, who knows?

However anyone still advertising the fact that they practise osteopathy without being registered IS now deemed to be breaking the law and the DOC or the Association of Orthopathic Practitioners cannot support them in their legal proceedings.

Cover yourself (and your patient's)

At present I am also revising my consultation forms which patient's are required to fill in before 1. Consultation. 2. Examination. 3. Treatment.

On a recent visit to a chiropractor (forgive me) I was impressed by not only their neurological testing but also their information as to what might happen on your visit to them.

The chiropractor asked me to sign to confirm all the details on the form were correct regarding my health and nothing else was left out of importance that may affect the treatment. They then asked me to sign to allow them to examine me, before asking me to sign before treatment was carried out. Three signatures that covers your back, should there be any cause for complaint after treatment if anything goes amiss.

I personally, have information sheets for the patient after treatment but from now on will definitely include those beforehand and insist on signatures on each of those parts with my current 4 page form for the patient to fill in.

1 in 1-3 million have the risk of a stroke after HVT manipulation to the cervical spine and 1 in 10 million have a risk of paraplegia after lumbar spine HVT. Have you got those details on your form!

Anthony Mathews

It is with great regret that I have to inform you that controversy follows you wherever you go and this seems to be the case for our old registrar Tony Mathews who was enjoying himself in the beautiful surroundings of Vancouver Island.

This picturesque island is a paradise away from the drudgery and recession of the wet and depressing UK at the moment. Or so it may seem? Unfortunately the Canadian Government registered doctors who are also practising osteopaths over in Canada have now decided to give the non-GP registered osteopaths a hard time with new regulations.

They say you attract all the controversy and Tony thought he had left it all here in the UK!

I "was" thinking of emigrating there!

Codex Alimentarius

Those of you that prescribe any form of supplement need to be aware of the evil goings on over the Codex situation.

In December 2009 Codex will become law and you will not believe what you will be restricted to in prescribing and will be prosecuted if doing so. An amazing series of video recordings on Youtube can enlighten you as to how effective just ONE complaint to your MP can have such a profound influence. Your complaint is counted as 13,000, so please

contact your local MP and tell them of your objections to the codex legislation.

Use it or lose it is the saying!

Mercury: Evidence Mounting

Mercury's role in health issues has been played down for decades but mounting evidence and a softening pro-amalgam attitude from Environmental officials, Government bodies and Dental associations are bringing about change via a whole spectrum of regulations.

The world's governments, 140 of them, met recently (February 2009) to address the concerns to global health caused by high levels of mercury in fish and the environment. Increases in environmental pollution from 1977-2002 have been 5 fold but even worse, 20 fold in the last 2 centuries, resulting in a 1000 fold increase of toxins in our oceans fish. The European Union countries and United States have now signed an agreement from 2011 and 2013, respectively not to export mercury from outside sources and to reduce mercury emissions. www.zeromercury.org (1)

Crematoriums in Europe are now required to install selenium filters to their chimneys in order to absorb mercury emissions released from the mouths of deceased. In all, mercury leaking into the environment from industry, polluting our rivers and seas and poisoning our fish, is said to contribute up to 11% of the total human exposure. Fish tested worldwide are increasingly exceeding methyl mercury safe limits, and these so called safe limits are being reduced as new evidence emerges.

The major source of mercury exposure to humans though is said to be via amalgam fillings.

Despite being recognised as being the 3rd most toxic substance in the world and 50 times more toxic than lead, dental bodies have, since the mid 1800's, vehemently denied there being any detrimental effects when amalgam is compacted in teeth. In fact, the ADA (American Dental Association) still staunchly defends its use despite emerging fresh evidence to the contrary. Even the FDA (Food & Drugs Administration) has changed from supporting amalgam to warning of the dangers by stating that mercury "may have cytotoxic and neurotoxic effects on the nervous systems of developing children and foetus," and that pregnant women "should not avoid dental treatment, but discuss options with their dentist." (2)

The studies carried out that support the ADA stance on pro-amalgam have never included a neurologist or toxicologist, which is essential in scientific circles for credibility. No longer can the ADA rely on the research conducted by Frykeholme. (3) His assessment of low levels of mercury vapour (methyl mercury) being released from amalgam fillings (1953) has subsequently been shown to be greatly flawed by scientists including Professor Boyd Haley from the University of Kentucky, USA.

Haley's own research and profound ability to survey the American Government's science advisors research, along with others, is beginning to lead to a gradual change of attitude with the FDA (Food & drugs Administration). They are due to meet in July 2009 to finally classify mercury (methyl mercury) in amalgams which has never been classified before. Haley himself, set out to research into the damaging effects of Thimerosal (ethyl mercury) used as a preservative as an antifungal and antibacterial agent in vaccines following his interest in Gulf War Syndrome (GWS) causes. He found French soldiers did not suffer from GWS, but both American and European soldiers did, and he considers the high level of

mercury in those vaccines could be causing detrimental health problems. The difference was the French were not given mass vaccination. (4)

The high levels of Thimerosal contained in childhood vaccinations throughout Europe and the USA was seen as an oversight by Merck & Co as far back as 1991. (5) This led to slow withdrawal of this mercury preservative in vaccines in the USA and European vaccines from 2000 onwards (though Norway voiced their concerns immediately and withdrew it) even though the FDA advisory panel back in 1982 concluded thimerosal was not generally recognised as safe. (6) Substantial amounts of the Thimerosal containing vaccines though were still being used for a few years after. Surplus of these supplies were then offloaded to third world countries.

Other previous studies on dental mercury both by the ADA and CDA (Canadian Dental Association) have consistently shown methodical flaws and certainly bias. Lorscheider & Co cites both these associations in their studies to measure mercury in blood as being fragrantly flawed. Blood is a poor diagnostic tool to measure mercury and metals, as mercury in blood has little significance to mercury levels in the body's tissues generally, as it is quickly taken up by the body's other tissues and organs. (7)

Mutter and Co 2004 also discredit various studies explaining that these have disregarded basic principles of mercury toxicity and that mercury levels in blood and urine do not necessarily correlate with body exposure or clinical signs of mercury. Mercury levels in blood only reflect the last 3 days of exposure or mobilisation from organs. (8)

Dentists can no longer hide behind the research of mercury studies carried out on sheep that grind their teeth. Similar studies have proven mercury IS released from monkey's teeth that were implanted with fillings in the same way. Sheep do grind their teeth but monkeys and humans do not. (9) This research carries enormous weight as it was deemed well enough for inclusion in the science based journal FASEB rated 35th of importance of scientific circles. This is impressive when you consider the BMJ (British Medical Journal) is acknowledged to be rated at approximately 4,000! (10)

Mercury Safety Limits

An amalgam filling will contain approximately half a gram of mercury. This amount released into a ten acre lake will kill all the fish. If you break a thermometer containing mercury you have to immediately call the EPA (Environmental Protection Agency) USA or (Environmental Health) UK, exit, and seal off the room of exposure. Yet the same amount in one of our fillings constitutes no danger according to all dental teachings, claiming that mercury is safe when placed in the mouth (but is known to be toxic to ALL living form on earth!). The studies researched on monkeys comprehensively disproves that theory as high amounts of mercury were found in gum tissue, jaws and organs within days of amalgam placement.

Mercury sticks like glue to sulphhydryl and selenohydryl groups' cysteine, glutathione and amino acid groups on albumin in cell membranes. In fact, mercury will try it's best to leave its storage sight to bond with sulphur and selenium based supplements depending on the tissue or organ involved, the brain being the least responsive to this process.

When you consider that 0-1mcg is considered as the safe limit that is absorbed per kilo of body weight per day according to the EPA ((11) and mercury from one amalgam filling can release anything between 3 mcg and 17mcg per day, one can see why it is likely we may have a serious health safety issue here.

Consider the average individual with 8 amalgam fillings can potentially absorb between 24 mcgs and 140 mcgs purely from vapourised mercury. The accumulative load is enormous. These figures substantiate anything up to 60 mcgs of mercury being found in sewerage from daily excretion via faeces. (12)

Chewing, grinding the teeth and hot drinks can increase mercury release 15 fold for up to 90 minutes after stimulation and this happens over the entire life of the filling. (13)

Toxic Effects

Anyone who does not believe mercury leaks out of teeth can judge for themselves after viewing the IAOMT “Smoking Teeth = poison gas” DVD. Now on youtube or available via the International Academy of Oral Medicine & Toxicology (WWW.IAOMT.org) (14)

This clearly shows mercury vapour out-gassing from a 25 year old filling, in amounts that are one thousand (1000) times more toxic than the EPA will allow in the air that you breathe.

Doubters as to whether this is mercury, can further view the “Jerome Gold Film Mercury Vapour Analyser Device” readings of a filling being very gently scraped and see the vapour reading increase dramatically, even after just a few seconds. “It really is Mercury”. You tube and IAOMT. (15)

The scraping occurs during the modest of dental check ups and is enough to register very toxic amounts. Without adequate dental safety procedures this amount of vapour is highly toxic to the brain. One can imagine the amounts released during the drilling of an amalgam filling without protection?

Galvanism

The other major cause of vapour release is due to galvanism. Amalgam fillings produce electric currents which accelerate the release of mercury vapour. This is a continuous process happening in the mouth via different types of metal corrosion and their ability to create an electrical current, aided by the salts and acids from saliva.

While these currents are small, they nevertheless contribute substantially to the oxidising of the filling surface. Corroding the metals (16)

Apart from the vapour release, oxidised particles break from the filling surface and combine with saliva and food, then enter the GIT (Gastro Intestinal Tract) and are likely to be the precipitating factor in Candida related leaky gut and food intolerances.

Electromagnetic Pollution

With the body containing 70% liquid, and our cells able to communicate with each other via electrical potential, we are a sensitive resonating organism. Therefore it is not unimaginable that certain disharmonic electrical frequencies have the ability to harm.

Research in as recently as May 2008 showed mercury containing fillings increased the release of vapour when exposed to MRI (Magnetic Resonance Imaging) scanning. The study cited heating and electrical currents may present a risk to patients with mercury implants (amalgam). They also proved that exposure to microwave radiation via talking for 15 minutes per day on a mobile phone “significantly increased the release of mercury from dental amalgam” using urine analyses. Urine is responsible for only a small proportion of the total release of mercury in the body, so this studies results show that if mercury analysis could be analysed via the liver, a much substantially higher amount will have been released. (17)

The main aim of the study was to confirm with other research, the possibility that undersea welders with “The Bends”, suffer neurological damage due to exposure to electrical fields that release high amounts of mercury from their amalgam fillings.

Brain tumours are on a rapid increase in children and a vulnerable factor apart from the sensitive developing brain could be mercury that has been previously passed through the mother’s amalgam and the child’s exposure via vaccines. Mobile phone users must beware of being 240% more prone to brain tumours and a 400% greater risk of a tumour on their auditory nerve. (18)

Nutritionist Tamara Mariea found a substantial link with EMR (Electromagnetic Radiation) and Autism. Her studies over 5 years concluded EMR negatively affects cell

membranes by trapping heavy metals inside nerve cells that stops the detoxification of heavy metals from the brain. (19)

Once the BBB (blood brain barrier) is penetrated and mercury enters the brain, it becomes ionic and is trapped. It then acts like an antenna, making nerve tissue very vulnerable to any form of EMR.

The Foetus

The introduction of ultrasound scans during pregnancy has brought diagnostic scanning procedures to a new dimension. Unfortunately, controversy exists as to the possible disturbance of mercury during this process. It is a process that could be devastating to the vulnerable foetus that is already carrying mercury. The foetus and newborn child has no BBB and their brain has little protection against mercury from amalgam passed through the placenta via the mother. Methyl mercury readily passes the placenta and concentrations in cord blood are almost twice that of maternal blood due to the transport system of amino acids. (20)

The foetus does however have some protection by metallothioneine produced in the liver. Mercury is bound up substantially by metallothioneine that acts as a kind of sponge to protect the foetus during this critical time of brain development to stop the retoxification of mercury to other organs and tissues in the prenatal period. However post maternally the mercury releases into tissues such as the brain and kidneys. (21)

Brain tissue absorbs up to 6 times more mercury than any other tissue in the body.

Brain Fog

Mercury conducts electricity. It is used in switches and wires to help them operate efficiently and silently. Mercury vapour is emitted from fluorescent bulbs. Patients that suffer with CFS (chronic fatigue syndrome) that have "Brain fog" and notice they become tired working on computers or shopping in supermarkets, where there is an abundance of fluorescent lights, has most likely stored mercury in the brain.

Even the promotion of "energy efficient bulbs" will not reduce our mercury exposure as they contain between 3-5 milligrams of methyl mercury, much more than old fashioned light bulbs. A selenium based cloth covering, is at present, being patented to capture the mercury of the bulbs when they are disposed of because of their contamination to the environment. (22)

Ronnback & E Hansson contribute to the possibility of mercury and lead causing chronic encephalopathies with their research, reporting a high brain uptake of glutamate that happens as a result of metal exposure, that is cytotoxic to brain neurons. (23)

Leszek J & Co proof of extreme amounts of mercury are released into the jaw via the gums. Substantially more amounts enter both the bloodstream and brain in this way via the abundant amount of lymph in this area. Vapour however, is absorbed into the airways and reaches the brain via the olfactory nerve to the hippocampus that controls memory. (24)

Mercury is still used in the influenza vaccine and the link to AzD (Alzheimer's disease) is substantiated by the tenfold increase in the people who have these, even after only one yearly vaccine for as little time as 5 years. (25) They are not protected because of poor glutathione levels associated with aging.

Brain Degeneration

The CDC (Centre for Disease Control) issued the statement warning of the dangers of mercury exposure, citing 10% of women of childbearing age have mercury levels that are putting the foetus at risk of Autism, ADHD (Attention Deficit Hyperactivity Disorder)

Neurodevelopmental delay, learning difficulties and behavioural problems. This is caused solely by mercury, via the daily consumption of fish and seafood (2-3mcg). (26)

If the CDC is warning women of the dangers of such a relatively small amount in fish, it is preposterous to think that up to 140mcgs of mercury vapour per day might do to the reproductive system of the mother, or the brain of the foetus. Particularly as in fish, mercury is mostly bound up in selenium and passes through the body much more easily than mercury from amalgams or Thimerosal from vaccines.

Mercury penetrates the BBB (Blood Brain Barrier) and enters the CNS. Once there, it binds to sulphhydryl and selenohydryl groups where it becomes ionic and is trapped. It causes cells to malfunction, starving them of essential nutrients. It is a known neurotoxin and breaks down tubulin. Tubulin ensures protection by insulating neurofibrils in the microtubules of the brain. Degeneration is inevitable.

The IAOMT shows this process in an excellent DVD called “How Mercury Causes Brain Neuron Degeneration.” <http://commons.ucalgary.ca/mercury/>. Also on Youtube, “Amalgams & Mercury causes Autism and Alzheimer’s Disease”. (27)

The cell toxicity then causes membrane permeability, cell viability and DNA damage. When this process happens the cell is very vulnerable to further degeneration via chemical toxins and the attraction to the area of pathological micro-organisms commonly found in Alzheimer’s disease, Parkinson’s and Dementia patients. (28) This will be discussed in more detail later.

The amount of mercury from amalgams of the mother has shown to correspond to the same level of mercury in the foetus during certain stages of gestation. (29) Following this research and other similar findings, the use of mercury in dental fillings has been banned, or has been gradually phased out by countries such as Germany, Austria, Denmark, Sweden and Norway. In fact, in Germany, Degussa AG who was the largest producer of amalgams, announced it would no longer make them because of possible pending law suits.

In the United Kingdom Dr Bryan Hellewell warns that ‘In the face of mounting evidence of danger and an absence of safety, it is my duty to advise that the use of mercury dental amalgam in tooth fillings in the mouths of pregnant women should be discontinued.’ (The government’s adviser on toxicology in the year 2000) cites the danger to pregnant women and the foetus during pregnancy. (30)

One has only to see the levels of vapour released during the relative gentle action of scraping, to consider the potential toxicity of drilling the metal.

The Accumulative Load

There is no doubt the effects are also caused by the accumulative load. Toxin metal load and inability to excrete mercury is passed down from generation to generation. That is why Bioresonance testing and challenge mercury protocols often reveal a mercury load in children with little or no amalgam. The baby becomes the reservoir and absorbs mercury from the mother who has accumulated the same, from her mother.

Thimerosal from vaccinations and methyl mercury from amalgams via the mother and grandmother is potentially a lethal neurotoxin load, which puts the foetus and infant brain cells at risk of serious neurological damage. Despite a massive increase in funding by the UK government is there any wonder we have seen a vast increase in neurological deficits among our schoolchildren over the last 18 years with boys particularly falling behind and affected much more than girls suggesting an environmental trigger as a distinct possibility. IQ has shown a 14 point increase from the year 1942. Unfortunately the same report concludes since 1979 there have been small losses particularly amongst teenage boys, most likely due to testosterone (31)

The IQ deficits have been noticed for years but interestingly increased considerably more with the amount in the volume of Thimerosal in vaccines from 1989 onwards. Even allowing for poor reporting, the rise in neurological deficits is vast in proportion to previous years.

A dose-response causal relationship in the severity of ASD (autism spectrum disorders) was found in research conducted by The Journal of Toxicology & Environmental Health 2007. The study of children with apparent mercury toxic encephalopathy's manifesting in ASD. Symptoms of autism are induced by mercury exposure, especially prior to birth. This means previous accumulative mercury load being a significant factor in autistic onset followed by vaccination exposure via ethyl mercury. (32)

Those born to older couples who are more susceptible to autism shows accumulative load to be considered, as amalgam fillings break down and corrode over extended time that correspond to low glutathione levels found in older parents.

Autism

The tenfold increase of autism in the UK in the last 20 years can no longer be ignored.

We are not talking here about small doses of mercury. The thimerosal vaccine load is equivalent to 237mcg over two years. .01% = 0-5cc = 25mcgs or another mathematical description 2ppb (parts per billion) is accepted as the safe dose in drinking water. In one vaccine is 25mcgs or 50ppb, so if the doctor or nurse administering the dose was to drop the vial and it broke it would constitute a health hazard!

Autistic children have also shown to have a severely reduced metallothioneine deficiency suggesting this substance is being used by increasing amounts of mercury (33) Low glutathione levels are also predominant in autism indicating either genetic predisposition or environmental overload from mercury and/or chemicals (34)

Thimerosal is toxic to all living tissue even in doses as little as nanomolar levels according to Baskin & Co. His team used fluorescent techniques to assess the toxicity and found neuronal damage, even at nanomolar levels but were not able to assess the ongoing affects of damage easily. Nonetheless continuing nerve death cannot be ruled out and is most likely while mercury is still stored in the brain.

Ethyl mercury in the form of Thimerosal attaches to cell membranes and punches holes into the nucleus where the DNA exists. Though methyl mercury from amalgam stays in the blood longer than ethyl mercury, The affinity to nerve tissue is vastly higher with ethyl and the effects are not always seen immediately, as symptoms can begin to show as long as six months later and is typical scenario of continuing damage to the brain of children that have received vaccines months before. (35)

Vaccines containing thimerosal have 125,000 nanomolar levels of this mercury derivative. A drastic oversight by Merck & Co regarding the accumulative amounts.

Milk intolerance and Autism

Studies have also shown a high preponderance of autistic children being intolerant to the protein casein in milk. Casein in cow's milk is said to be 300 times higher than in breast milk. (36)

Dipeptyl peptidase is necessary for digesting casein and some autistic children have elevated levels of beta-casomorphine-7 in their blood. This is a potent neurotoxin. (37) Brain damage could occur if casein proteins combine with mercury and reach the brain via enteric pathways. Vitamin B12 has been used successfully as a mercury chelator and is essential for the myelin sheath that protects brain neurons.

Cow's milk causes the retention and concentration of mercury and the infant's ability to detoxify mercury lessens considerably. So in a baby, that has both mercury passed down from the mother, plus thimerosal from vaccinations, parents should seriously consider using alternative ways of heating milk for them other than a microwave. Micro waved milk given to these babies is nothing short of disastrous, particularly if heated in plastic bottles.

Autistic children that are intolerant to milk often have hyperplasia of their lymphatics, a condition that causes them to sweat profusely, particularly at night. These children have a habit of wanting to throw off their clothes, even in cold weather. Autistic children with

asthma and associated night sweats due to blocked lymphatics who are milk intolerant, often test positive for the parasite ascaris larvae. This is what makes the body produce copious amounts of mucus and methylmalonic acid and the subsequent Vit B12 imbalance. Chest infections are common here, but obviously fail to respond to antibiotics.

Thimerosal inhibits the body's ability to produce vitamin B12 in another significant link to the autistic spectrum child who is already milk intolerant with lymph hyperplasia. The question remains, "Could Thimerosal containing vaccines given before the MMR (mumps, measles & Rubella) have been a trigger in undiagnosed milk intolerant children that are already carrying a heavy mercury load via their mother's amalgam, trigger bowel disease"? Ascaris, as a parasite, can be a strain found in many known types of bowel conditions including Crohn's disease and Colitis as well as asthma. It is also a common cause of ileo-lymph hyperplasia.

Dr Andrew Wakefield may not have been too far away from the source of vaccination causing ileal-lymphoid hyperplasia (small intestine lymph spasticity) and bowel disease link after all. The live measles vaccine may have been the final trigger in these patients. (38)

CT scans were conducted on 24 children with hyperactivity suspected of allergies as far back as 1986. The study and findings revealed "significant higher frequency of cerebral atrophy" than in a control group. (39) Degeneration of the brains powers and impaired memory frustrate these children that can exacerbate ADHD (attention deficit hyperactivity disorder)

Lack of sulphate has been implicated in autism by Allergy Induced Autism that links to mercury, may have some substance after all. (40)

Associated food allergies with ADHD and behavioural problems may have mercury as the primary cause here, and particularly those with leaky gut based Candida as the gastrointestinal tract has as many neurons as the spinal cord.

Milk free diets that have tended to show marked improvement in autistic tendencies in those children affected by mercury and PCB's (poly-chlorinated-biphenyls) found in both cows and breast milk, as milk could potentially enhance mercury neurotoxicity due to its affinity to metals.

Wheat Intolerance

We are well aware of the effects of wheat opiates in the brain that act similar to the casein in milk. Experience though dictates that wheat intolerance can be mostly reduced or corrected by balancing blood sugar and repairing leaky gut permeability. Candida here plays a significant part in pancreas function. Methyl alcohol used in the process to manufacture wheat directly affects secretion of insulin and the enzymes needed to balance blood sugar are quickly compromised as fungus proliferates along with the parasite eurytrema pancreaticum, but the pancreas is particularly vulnerable to metal toxins and it is the leaky gut from Candida roots and giardia that destroy the villi of the intestine that allow permeability. Zonulin, newly discovered to be involved in gluten and carbohydrate metabolism is more likely to be a result of, rather than the cause of the intolerance and mercury's link to diabetes, fungal problems and wheat is obvious.

Aplipoprotein, Alzheimer's disease and Neurological susceptibility

The role of metals in neurological diseases is not uncommon, with the metal lead also implicated as a risk factor where three key genes were found to be 50-100% more active in monkeys with AzD. The lead caused a similar breakdown of amyloid plaques found in human brains. (41)

Pollutants have been suggested as a cause of the huge rise in degenerative neurological conditions in western societies in the last two decades (50%) but the more susceptible are those with poor detoxification pathways including Aplipoprotein-E4. This

leaves us susceptible to chronic inflammation and oxidative damage and therefore opportunistic pathological infection (42)

Those with APO-E2 can easily break down metals including mercury due to having 2 sulphhydryl groups in the form of cysteine. Those with APO-E3 have only one sulphhydryl group and more significantly APO-E4 has a lack of thiol-groups and loses its ability to break down mercury in the brain and liver.

APO-E2 proteins actually carry two atoms of mercury out of the brain, APO-E3 one atom and patient's with APO-E4 are 80% more likely to develop AzD due to having a lesser ability to detoxify metals.

In fact, those carrying APO-E4 (5%) the onset is more likely to start much earlier, even before reaching seventy years old. (43) 95% of patient's suffer from LOAD (late onset Alzheimer's disease) but the 5% represent APO-E4 and is the most significant genetic factor for the disease.

Mercury inhibits the same proteins that cause amyloid plaques in AzD. Both amyloid plaques and neurofibrillary tangles are the two major pathological diagnostic markers in AzD. Godfrey M. E. affirms APO-E4 as a potential biomarker for mercury neurotoxicity (44) He also goes on to show that autistic children have high levels of APO-E4 in the brain. Abnormal microtubule formations in AzD patients have been shown to be associated with mercury toxicity and repeated studies also show that a similar effect can also be induced in the brain of rats.

Gene therapy experiments with mice have revealed that delivery into the brain of APO-E2 reduced amyloid plaque burden in an exciting find if therapy can be effective in humans with AzD. (45)

The APO deficiency and infection was shown to correlate in AzD patients by Nadezda Urosevic and Ralph Martins (46)

These APO proteins bound to mercury leave brain cells and filter into the CFS (cerebral spinal fluid) where they then cross the BBB (blood brain barrier) into blood plasma and pass through the cribriform plate to be detoxified.

Mercury can cause glutamate excess to increase in the brain. When this excess happens the toxicity causes swelling and neurotoxic effects and results in damage to nerve structures through oxidative stress that are the hallmarks of neurodegenerative diseases such as Parkinson's, Alzheimer's and Dementia. Electrophoretic band changes in CSF were normalised after amalgam removal from MS (multiple sclerosis) patients in another neurological related illness that has been linked to mercury. (47)

MS sufferers with metals as a causative factor respond to lipoic acid supplements that bind and stabilise mercury leaving them less vulnerable to mycotoxins. The fungal mycotoxins are primarily in the brain due to the metal connection and often found chemicals on the nervous system.

It is not advisable to give glutathione to MS patients as mobilisation of mercury can exacerbate symptoms.

Downs syndrome patients also develop the same pathogenic hallmarks of AzD in old age linked with APO-E4. (48)

Asthma

Bioresonance treatment with frequencies that invert the resonating frequency of ascaris, neutralises, stuns or kills the parasite and because the patient holds electrodes in the form of plates, the smell on the plates after treatment can often be found to be of chlorine or formaldehyde toxins! Ascaris not only stores chlorine and formaldehyde inside it, but it also uses the body's Vit B12 and B2 to help break it down.

In the asthma patient supplementing with these vitamins, often reduced their milk intolerance.

Chlorine generally causes erosion of mercury fillings. (49) Patient's with milk intolerance stressed by mercury are more difficult to treat as the chlorine constantly erodes

amalgam surfaces and Candida becomes very resistant in these cases, as the fungi strongly adheres to ascaris and will not leave despite therapy, unless chlorine and ascaris is treated successfully first.

Fungus acts like a sponge for mercury in the colon and the cell walls of the fungus adhere to the mercury atoms in order to absorb it. The typical Herxheimer's reaction on antifungal therapy is not only because of mycotoxins, but most likely mercury itself.

Bioresonance testing often reveals that if the patient is craving for sugar, during this process Candida is in the phase of "die off" mainly because of mercury being released from cells and organs into tissues. The sugar reactivates the fungus to grasp hold of the deposits of mercury.

Chinese medicine acknowledges the colons sister organ is the lung. It is often the case that milk intolerant asthma patients to be harbouring Candida in the colon.

A study in Russia goes as far as saying that 99% of asthma patients may have Candida, mercury could be the maintaining factor along with chemicals and moulds. (50) Though asthma is multifactorial in cause, excellent therapy breakthroughs can be made if mercury, metals, aspergillus mould, formaldehyde and chlorine are excreted in these cases. Sometimes without even treating the Candida because it often disappears or becomes inert and is considered as an intermediary to the prime causes in most fungal related illnesses.

Mercury from vaccines is also implicated in delayed onset asthma following a report from Manitoba, Canada. Infants given the DPT (Diphtheria/Pertussis/Tetanus) vaccine containing Thimerosal at 2 months of age were 9% more likely to get asthma than when given the same vaccine at 4 months old. (51) This suggesting mercury damage may not surface in obvious symptoms immediately.

Vaccination levels

In 1951, only 1 in 10,000 children were diagnosed within the autistic spectrum at a time when there were only four vaccines (diphtheria, smallpox, tetanus and pertussis). In 1981, that increased to 12 in 10,000 when a total of 135 micrograms of mercury were given via vaccines, a four fold increase in cases. In 1996 with the addition of Hepatitis B and Haemophilus influenza the levels of mercury reached 237 mcgs and autism levels reached 1 in 350 children. In 2000, 1 in 250 and 2004 1 in 166 had been given a diagnosis within the autistic spectrum. So in just 15 years there has been this mass explosion of autism on an unprecedented scale never seen before.

Fifty years one was likely to know maybe one child affected in his/her neighbourhood. Now autism is rife with countless cases in even small communities. Bear in mind these figures do not include those with ADHD, behavioural problems, learning difficulties, speech and developmental delay which is said to be 10 boys to 1 girl. The mercury volume added to vaccines tripled during 1988-92.

Denmark has been phasing out mercury fillings for years and the autism rate there is 1 in 1,300. They also banned Thimerosal in the mid 90's.

Safety Assessment

The FDA in 2002 admitted there has never been a full safety assessment of thimerosal. www.SafeMinds.org. (52) Thimerosal was "grandfathered" into use by the FDA more half a century ago. In 1977, 10 of 13 newborn infants died as a result of having a thimerosal containing antiseptic wiped onto their umbilical cord infections. (53)

Bile production is minimal in babies aged up to 6 months so they cannot excrete metals from their bowel or liver. Bile is paramount in the excretion of mercury as up to 90% of mercury is eliminated in this way. With only between 5-10% excreted via the kidneys and other tissues. Glutathione is essential for production of bile.

Autism reduction

California had an unprecedented decrease in new cases from 734 to 678 in the second quarter of 2005. A decline of 7.5% in one quarter alone, despite a 10% increase in caseload. All told, there was a decrease of 22% from the previous year and a 35% decrease from their estimated projections. A startling statistic! (54)

Before you dismiss this factor consider the DDS (The California Department of Developmental Services) is acknowledged as having the best reporting system of all the American states for autism. In 1994, it was a requirement for dental offices in California to warn patient's of the dangers of mercury and the link to birth defects and other health problems. Sweden banned mercury fillings in amalgam in 1994 for children under 19 years old because evidence showed them to be a trigger in autoimmune disorders. Previously methyl mercury sprayed on crops as a powerful antifungal agent, was withdrawn after they found enormous neurological deficiencies in birds that had fed off cereal crops.

Research in Sweden suggesting no link with thimerosal has not taken into account the preponderance of amalgam fillings in Swedish subjects that is much less compared to the rest of Europe because of their position on mercury in amalgam for the last 14 years. (55)

Leo Kanner first described "Autism" around 1941-3, about 8-10 years after Thimerosal was first used in vaccinations and medicines. It has also been used in ointments, antiseptics, antiparasitical medicines, contact lens solutions, nasal sprays and a multitude of beauty cosmetics as a preservative and antibacterial.

The escalation of autism and associated neurological developmental problems in children from 1989 to 2003 mean 1 in 100 children are now said to suffer in the UK, as opposed to 1 in 2,500 in 1989. This eerily coincided with the dramatic rise in the amount of childhood vaccinations and is a logical link.

Testosterone

High testosterone levels linked to autism show promise for possible therapy, but are likely as a result of the picture rather than the cause. Mercury no doubt increases the toxicity in males and in the severe autism, the numbered cases are said to be as high as 15 boys to 1 girl. One interesting research article though involved young athletes who died of Idiopathic Dilated Cardiomyopathy. They were said to have 22,000 times the safe dose of mercury in their tissues indicating very high testosterone levels. Testosterone increases the potency of mercury dramatically; it is highly probable that mercury was the cause of their heart attacks. (56)

Levels of testosterone have been measured in amniotic fluid as a marker for eye contact and a poorer than normal vocabulary by Simon Baron Cohen at the Autism Research Centre in Cambridge UK. The children that were followed up to the age of four that had the higher levels in the amniotic fluid of the mothers while pregnant, corresponded with poor development socially. (57)

Hair Analysis

Differing hair analysis with autistic children seems to confuse and can be extremely misleading. Tests often show LOW levels of mercury in hair and this often means autistic children CANNOT excrete mercury and metals. The opposite of what is normally assumed with these tests. A study by Holmes et al., 2003 (58) explain low mercury levels in hair analysis of children with autism, despite their mothers having high load of amalgam showed this to be the case, meaning mercury is more likely to be retained in their brains.

Hair analysis however can be useful as a "before and after challenge test" with cilantro, algae's or other appropriate metal binding remedies.

Coporphyrins, Heme & P450 cytochrome

The urinary porphyrin profile is now being recognised as the most accurate and sensitive test if your patient doubts that they have mercury problems.

This test has twofold purpose

1. Affirms mercury intoxication.
2. No need for mercury challenge test

Coporphyrin profiles are directly affected by mercury because porphyrins begin in the mitochondria of each cell, but mainly in the kidneys and the liver. Porphyrins join heme in the cell where its oxygen molecules stimulate mitochondria, the powerhouse of the cell. Mercury stops mitochondria production and lack of heme has been seen as the most significant marker in AzD as it binds to beta-amyloid protein and excretes it.

Atamna H. showed Alzheimer's patient's to have a considerably reduced functional deficiency of heme, linking metals and particularly mercury to be a strong possibility in the aetiology of the disease. Though deficiency has many complicated causes one must not rule out the mercury possibility (59)

Dr James Woods, researcher from Washington USA, has specialised in this area and autistic children have shown to have altered porphyrin profiles. This important study in France that used DMSA as a chelating agent with a number of autistic children found, following the therapy, their porphyrin profiles returned to normal and anecdotal reports by Lathe of Pieta research in Edinburgh, UK, suggest chelation drugs may be useful in the majority of those in the autistic spectrum. (60)

A high percentage of autistic children present with a pale coloured complexion that is typical of those with poor heme according to Boyd Haley. This I have often seen in my own clinic.

These children often have food intolerances and have a high preponderance of Candida, but the primary cause is nearly always mercury causing low levels of heme production. The result can be lack of iron and those that fit this category fall into the anaemic spectrum.

P450 cytochrome levels in the liver are dependent partly on HEME to be effective, and, if functioning well, can carry out mercury, metals and chemical detoxification. Aluminium and nickel though have a particular affinity to kidney tissue and are normally excreted via that pathway too.

The specific biomarker test in the porphyrin profile for mercury is precoproporphyrin that is available from www.labbio.net or www.greatplainslaboratory.com

Antibiotics

Antibiotics increase and enhance the retention of mercury. Candida infestation after antibiotic use is rapidly mobilised in order to absorb the mercury released. Therefore, mercury is retained by the proliferation of Candida; because that is what in nature Candida is designed to do, much like Bioremediation that I will explain later.

Substantial research has been conducted on antibiotic resistance bacteria by Dr Anne Summers & co. She has found that the bacteria become very resistant in the presence of mercury and once mercury is detoxified bacteria are much easier to treat and eradicate and sometimes disappear altogether once complete detoxification of mercury is achieved. (61)

Sulphonamide and sulphur based antibiotics are particularly problematic in that they switch off the sulphur pathways of detoxification leaving us with an inability to break down metals. These antibiotics have been widely used in animal feed for years and it is no wonder in our desire for meat and fish we are losing the inability to detoxify. Unfortunately, non-meat eaters, like vegetarians who eat little protein and tend to be alkaline, are generally very poor

at metal detoxification, because mercury needs to bind to proteins in order to be excreted. Thus mercury prefers an acidic environment to be able to excrete.

More mercury fillings were put in peoples mouths here in the UK in the 1950's than in any other time and mercury load passes from one generation to the next. The grandchildren of those from the 1940's with an amalgam load, along with mercury from vaccinations coincide with the documented steep rise in autism and Alzheimer's disease from the early 1990's onwards. Other ever increasing neurological illnesses escalation fits the time pattern too.

Gum Disease

Unfortunately bacteria become very resistant and multiply if they cannot cope with an increasing load of metal and chemical toxins. In the mouth, it is common for dentists to prescribe high dose amoxicillin in large and repeated doses to kill bacteria in the case of gum infections or abscesses. This is excellent if successful, but in some patients antibiotic resistant bacteria occur, and often become anaerobic if containing leaked mercury.

These bacteria use cysteine, metallothioneine, glutathione and other sulphur based amino acids and minerals to help break down mercury polluted mouths. This microorganism process happens in chronic illnesses throughout the body when toxin load reaches critical levels.

Once the rusting process reaches a certain stage, the gum bacteria increase around the area of the filling in an effort to methylate (absorb, bind & oxidise) the amalgam with increasing intensity.

This is a situation that occurs with PGD (periodontal gum disease). Toxins from PGD include hydrogen sulphide (implicated in CFS) and methyl thiol. These alone are known to cause cell death.

It is found that 70% of 35-44 year olds and 90% of 55-64 year olds have PGD. The link to cardiovascular disease caused by streptococcus bound to mercury cannot any longer be ruled out.

PGD has also been associated with AzD too. Bacteria and spirochetes and their toxins are powerful inflammatory stimulators and are amyloidogenic, they contain amyloidogenic proteins that are capable causing brain degeneration seen in these patient's. (62)

Bacteria not only have the ability to resist antibiotics but there is evidence they thrive on them. Gautum & Co carried out research and concluded bacteria similar to pathogenic strains in humans were able to feed on antibiotics "for breakfast"! As parasites are major carriers of both fungi and bacteria, one can begin to understand how all manner of microorganisms act as reservoirs for toxins in our bodies. (63)

Phytoremediation & Bioremediation

Plants and microorganisms have amazing immune systems and are able to survive all manor of climate change and pollution of our planet.

Scientists know that without rain forests to absorb carbon dio dioxide and the earth's toxins, this planet would be under severe pressure to maintain equilibrium. All plants and micro-organisms in the environment use minerals to breakdown toxins, chemicals and metals.

Phytoremediation is the process of plants that hyper-accumulate heavy metals from soil and water. This process has been used in China for the last 15 years and is used in America and Europe too. Canada particularly has already established a database of 775 plants with capabilities to hyper-accumulate several of 19 key metal toxin elements from the environment. (64)

These plants decontaminate heavy metals very effectively in three ways, by removing, detoxifying and stabilising them and this Biotechnology is interesting other governments worldwide who are in a race to clean up our ever increasing toxic dump of

waste. (65) Algae particularly can use enzyme activities to degrade various xenobiotics, heavy metals by the action of phytochelatins and metallothioneines and translate them into vacuoles. (66)

Bioremediation mining techniques use both aerobic and anaerobic means to extract heavy metals, chemicals, radioactive waste and oil out of the earth to save on costs of excavating by using microbes such as fungi, bacteria, yeast and algae. These microorganisms use nutrients like cysteine, metallothioneine, amino acids and various trace minerals to break down metals, chemicals and toxins in the soil (67)

Mines are apparently flooded with water containing microbes and fungus that draw the minerals and metals from the earth which are then filtered out to be used in industry. Bonaventura (68)

An interesting analogy of this process with fungi can be seen on Paul Stamets Bioremediation on You Tube. (69)

One useful technique is to combine whey with pseudomonas bacteria and this process is successful in breaking down PCB'S (Polychlorinated Biphenyls) leaving only salt and water as a result. The nutrients involved make the microbes grow very similar to commonly used lawn fertilizers and the process involves sugars, alcohol, organic acids and carbon. (70)

Fungi that are sulphur based can either be of the saprophyte type or parasitical and are used as a degrading process in toxin remediation.

Waste water plants have used bacteria for many years to clean chemicals and environmental toxins for tap water use.

Bear in mind these microbes have been around for 3.7 million years and have adapted and thrived despite all manner of climate change. A single gram of soil is said to contain between 1 million and 10 billion microorganisms and there is no compound known to man, whether man-made or natural, that microorganisms cannot degrade. Most are found in the top 12 inches of soil and they use the chemicals as their food source.

These methods herald an exciting new field and more importantly are proving very cost effective in managing wastes such as chemicals, heavy metals and most environmental pollution. Governments are now seeing this as an alternative to the escalating costs of waste in the environment.

It is only natural that what is happening in the environment is most probably occurring in ones own body suffering chronic illness. There has been an increase of 5% mercury pollution year on year on the earth since the 1970's and male marine mammals are growing female sex organs that may lead to a serious threat to our reproduction capabilities.

The role of microbes becoming endemic due to global warming is well documented with many parasites that were once thought to be only in far off places being found locally and playing a role in many chronic illnesses due to worldwide travel. (71)

Algae bind to metals and acts like an iron exchange, its portion of amino acids adhere to the metal surface, pulling it away from its binding site.

Ultrasound and algae are being successfully used to clean up mercury in sediment from waterways in experiments by Ohio State University. The study found within minutes, ALL of the mercury was bound up in algae using ultrasound techniques. Bioresonance therapy has the tools to break down mercury very similar to this by using sound frequencies and using a range of algae's and sulphurs that bind up mercury and excrete it safely (72)

Bioresonance Therapy

All living things survive by a delicate balance in the earth's ecosystem and are dependant on physical as well as chemical balance. The physical properties of life can be affected by an imbalance of frequencies. Allergies in particular are known to be caused by not only the offending allergen but the frequency of that allergen. Professor Cyril Smith of Salford University has carried out experiments in this field and one has only to consider that the level of metal toxins from amalgams and the high density of electromagnetic radiation coincide with the explosion of allergies in the last 50 years. (73)

Bioresonance therapy is able to access and reduce or eliminate allergens on a level equal to none. Paediatrician Dr Peter Schumacher trials with children have shown 84% of allergies were eliminated and 11% improved. (74)

We now know that parasites, fungi and bacteria act as storage mediums for environmental toxins. (75) Hulda Clarke (Cure for All Diseases) their aim in the body is the same as in the environment i.e. to mop up, oxidise, degrade and process all these toxins. They do this by stealing the body's own vitamins and minerals.

The classical Herxheimer's reaction after treating Candida is mainly down to heavy metals or chemicals being released. Patients with Candida and other forms of fungal strain often complain of not being able to tolerate chlorines, perfumes, cosmetics and bleaches. In the brain where metals are trapped and spinal cord Candida is nearly always there in abundance.

All microorganisms that are resistant to therapy and medicines respond much quicker, or even do not need treating at all after successful elimination of metals and chemicals. Methylation of mercury occurs through microbial breakdown as a natural process.

Intracellular Space

Once mercury is mobilised out of organs and can no longer be tested by energetical means, we used to assume there were no more metals to be found. Fortunately with energy medicine technology we are now able to open up the intracellular space where mercury and intracellular microbes are often stored. We do this by using a 3-6 square wave with positive offset. This allows a "window" of roughly 20 minutes to test metals and associated parasites, fungi and bacteria and treat accordingly. This is a major break through as previously, through traditional resonance testing it was presumed that there were no metals or microorganisms left in the body. The intracellular space is now accessible.

Filter system

Bicom Bioresonance also now has a unique system of filtering both metals and chemicals out of the body at a much greater rate than previously, thanks to the development of a filter organ ampoule testing and treatment system developed by the eminent naturopath from Germany Alan Baklayan. Ampoules have been created to give an enhanced signal and with a two input device, that can breakdown the metal, chemical and microorganism directly out of the organ. The excretions come directly out of the body through the skin onto hand and footplates. Residues for mercury are at this time awaiting analysis.

Who is the likely sufferer, and who escapes?

The ability to be able to adequately detoxify being the most the most important part and this is not just down to APO-E levels. The accumulative load is paramount because once the production of glutathione stops, detoxification is very seriously compromised and supplementing will not work in these cases. Oxidative stress and degeneration are inevitable.

Hereditary factors do come into play as there are some patients with a mouth full of amalgams that suffer no ill effects, yet another will be highly susceptible with only two fillings. Protein diet is essential as mercury breaks down much more easily in an acid dominant Ph than an alkaline one as mentioned earlier.

Bile production is obviously the key as up to 90% of excretion occurs this way.

Naturally occurring sulphurs in garlic such as cysteine and glutathione have achieved success in binding lead bound to bacteria and excreting it naturally, particularly from the blood. (76)

Green algae's, brown and particularly red (which is stronger) have proved the most successful in breaking down mercury. Some, even after chelation with DMSA (dimercaptosuccinic acid) and DMPS (dimercapto-propane-sulfonic acid) cilantro and Humic acid.

Unfortunately, selenium in supplement form acts similar to homeopathic mercury. It binds up mercury tightly in organs and tissues and one suspect's makes mercury in-accessible to adequate detoxifying means, not advisable for those with mercury in the brain, but may be used with problems of retoxification.

Phytoremediation and Bioremediation theory may be the answers to many chronic illnesses that have an environmental cause. The connection between metals, chemicals, electromagnetic pollution and microbe resistance cannot be ignored and gives the environmentally aware practitioner the tools to achieve lasting success.

Nutritional influences on mercury detoxification

Milk increases mercury absorption from the intestinal tract thereby decreasing mercury faecal excretion due to the binding of the fatty acids from milk triglycerides. There is no doubt as to the detrimental effects of milk in delaying mercury detoxification during Bioresonance therapy as treatment is more successful when combining milk and associated micro organism strains together when breaking it down through resonance. (77)

High protein eaters mobilise mercury at a much faster rate than vegetarians due to this reason, though adequate liver function is necessary due to the release of mercury from tissues into the liver. (78)

Wheat is an interesting substance that appears to help the brains neurotoxin effects of mercury and reduces mercury in both the blood and small intestine. (79) Unfortunately because of the levels of Candida associated with mercury, I believe wheat to be detrimental in these cases because of its interaction with chemicals bound in fungicides and may help store mercury in the large intestine despite its fibre content. Though this could be due to poor liver function and the amount of mercury stored in that organ.

Soy protein has shown some ability in mobilising mercury from organs, as has the effects of alcohol on detoxification due to being a potent stimulant to the liver.

Vitamin B12 supplements used in breaking down mercury will be more successful in a patient who is milk intolerant because of the undoubted link to ascaris and milk intolerance that causes blocked lymph. This is where L-cysteine, wormwood and high dose papaya succeed.

High dose digestive enzymes achieves success with these children because of the enzymes destruction of biofilm commonly found in the colon in autistic spectrum cases. B2 can also be added if there is a chlorine connection particularly in those suffering from asthma. In fact B12 does show promise in these studies on brain tissues and spinal cord as well the liver and is a must in those milk related autism cases. The difficulty is finding a way for the body to absorb it in large enough doses. IV is probably the best and great changes can be achieved fairly quickly with those who are anaemic.

Supplementing B12 with Vit C however is contraindicated, as studies show absorption of mercury in the brain (80)

Cysteine combined with methionine protects the brain against mercury but does not break it down. Similar results can be achieved with Lipoic acid and methionine.

Omega 3 in fish oils must not be underestimated. Brain power changed dramatically when humans started eating a fish diet many thousands of years ago and Osteopaths using cranial techniques can feel dramatic changes in CSF motility after supplementation of these oils in only a matter of weeks. The scientific literature suggesting higher IQ levels are only a small part of the extremely beneficial effects on the developing brain of children who regularly consume omega 3's. Enhanced lymph drainage via structural release that the oils achieve is excellent. Birth trauma associated with autism can be improved significantly by the same supplementation and a long period of breastfeeding that releases brain tension.

Pesticides no doubt play a role in the brain degeneration of neurological diseases and with protective fatty acids in brain tissue play a significant part in the role of autism. Their reduction from EU advisors is a significant step in the right direction

Vitamin E, whilst providing protection, does little in breaking down mercury, however lipoic acid does seem to be a successful sulphur supplement that increases bile excretion according to research carried out by Gregus. (81)

Cilantro here proves to be useful as it directly stimulates bile and has stood the test of time. It also has shown to break down mercury in the brain and can be used as a challenge test, followed by mercury porphyrine test levels or Bioresonance energetical organ testing that can trace the mercury into each organ during excretion.

Chlorella is effective for those with mercury in the liver but must be combined with MSM (methyl-sulfonyl-methane) for those with bowel retained mercury. Red, and some brown algae will break down mercury very quickly, but the problem lies in not breaking it down, but mobilising it efficiently safely not to cause retoxification via the liver. That is why maximum bile production is of paramount importance in all patients.

Zinc has shown to slightly decrease mercury whole body load and particularly in the kidney and is nearly always deficient in mercury laden patients.

Copper increases whole body retention of mercury by 50%, except in the kidneys, where it decreases it, though this research has not been copied elsewhere.

Chloride inhibits mercury uptake but its uses in detoxification are not yet proven. Sodium Chlorite is best avoided for this purpose.

Selenium is useful in low doses for the liver and kidney, but controversy still exists as to its binding effects with mercury in the brain. There is ample evidence that it does bind to mercury, but if you have mercury in the brain, this is the last place you want to bind it. Particularly in patients with autism and Alzheimer's, though in an acute mobilisation I can see the benefits short term. It is not a supplement I use for this purpose unless I am comfortable there is no brain mercury. (82)

OSR (Oxidative stress reducer) newly created by prof. Boyd Haley at CTI Science shows exciting promise, in not only detoxification of metals and chemicals, but also in restoring glutathione levels to normal. An absolute essential for long term health and immunity. For those that are sulphate sensitive, molybdenum counteracts against the allergic reaction of sulphur based products. OSR can be enhanced by taking phospholipid exchange.

Conclusions

Toxicologists are well aware of the dangers to living tissues exposed to ethyl and methylmercury, especially nerve tissue. In the United States the Vaccine Injury Compensation Programme paid out a multimillion dollar settlement to Hannah Poling, April 2008 and there are another 5,000 law suits waiting (83)

Only studies by toxicologists not associated with mercury manufacturers can be relied on. The ADA is not responsible for any mercury causing illness as they do not mix the metals together and neither do the manufacturers, only dentists do.

In the UK, we have one of the highest amounts of amalgams per mouth in the western world. We have some of the highest reported cases of autism and neurological disorders too. Russia banned mercury in 1980's and withdrew thimerosal in the 1990's. So, why have the government not actively encouraged the withdrawal of mercury used in dentistry in this country yet?

More amalgam fillings were put into UK mouths during the 1950's and the vast increase of Alzheimer's disease has come five decades later and vaccines containing Thimerosal reached an alarming 237mg by the time the child had reached two years old.

Just bare in mind adequate testing methods are still poor for metals and chemicals in organs where most of it is stored. Better MRI scan technology is showing promise in this field. However Bioresonance testing does give the practitioner a sensitive level of testing and treatment in this sphere of environmental causing illness.

References

- 1 www.zeromercury.org
- 2 www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/DentalProducts/DentalAmalgams/default.htm
- 3 Frykeholme K, W. On mercury from dental amalgam. Its toxic and allergic effects and some comments on occupational hygiene. *Acta Odontol Scand* 1957; 15 (suppl) 1-108.
- 4 Boyd Haley, Gulf War Syndrome <http://urlbam.com/ha/yz>
- 5 Mercury memo, Merck & Co 1991, www.factsformedia.com & latimes.com
- 6 FDA advisory panel, Determined that Thimerosal in over the counter products was no longer “generally recognised as safe”. Source Report Prepared by the staff of the Subcommittee on Human Rights and Wellness Committee on Government Reform United States Representatives. Chairman Dan Burton May 2003
- 7 Lorscheider & Vimy, *Lancet* Vol, 337, May 4, 1991, 1103 cite both these associations in their studies to measure mercury in blood as being flagrantly flawed.
- 8 J, Mutter, Naumann, C, Sadaghiani, H, Walach, G, Drasch Amalgam studies: Disregarding basic principles of mercury toxicity. *International Journal of Hygiene and Environmental Health* 207 (2004) 391-397
- 9 Leszek, J. Hahn, L, J. Kloiber, R. Leininger, R, W. Vimy, M, J. and Lorscheider, F, L. (1990) Whole-body imaging of the distribution of mercury released from dental fillings into monkey tissues. *FASEB. Journal*, 4, 3256-3260
- 10 FASEB The Journal of the Federation of American Societies for Experimental Biology.
- 11 David Kirby. Evidence of Harm. 0-01mcg of mercury per kilo of bodyweight per day is recognised as the safe limit according to the EPA
- 12 Vimy, M. J & Lorscheider F, L. Serial measurements of intra-oral air mercury: estimation of daily dose from dental amalgam. *J, Dent Res* 64: 1072-1075, 1985
- 13 Svare, et al. The Effects of Dental Amalgams of mercury levels in Expired Air. *Journal of Dental Research*, Vol. 60, #9, Sept. 1981, 1668-1671.
- 14 “Smoking Teeth-Poison Gas” WWW.IAOMT.org
- 15 Jerome Gold Film Mercury Vapour Analyser Device WWW.IAOMT.org
- 16 Masi, J V (1995) Corrosion of amalgam in restorative materials: The problem and the promise. In *Status Quo and Perspectives of Amalgam and other Dental Materials* (Friberg, L., Schrauser, G, N., Eds) Thieme-verlag, Stuttgart. In press.
- 17 Mortazavi SM & Co. Mercury Release from Dental Amalgam Restorations after Magnetic Resonance Imaging and Following Mobile Phone Use. *Pakistan Journal of Biological Sciences* 11 (8): 1142-1146, 2008

- 18 15 Hardell, L; Hallquist, A; Mild, K Hansson; Carlberg, M; Pahlson, A; Lilja, A. Cellular and cordless telephones and the risk for brain tumours. *European Journal of Cancer Prevention*: Vol 11 (4) August 2002pp 377-386
- 19 Tamara J Mariea and George L Carlo. Wireless Radiation in the Etiology and treatment of Autism: Clinical Observations and Mechanisms. *The Journal of Australasian College of Nutritional & Environmental Medicine* Vol 26 No 2 August 2007.
- 20 Vimy M. J., Takahashi, Y., & Lorscheider, F. L. (1990) Maternal-fetal distribution of mercury (203-Hg) released from dental amalgam fillings. *Am J Physiol.* 258, R939-R945
- 21 Karolin Ask Bjornberg, Marie Vahter, Birgitta Berglund, Boel Niklasson, Mats Blennow, & Gunnila Sandborgh-Englund. Transport of Methylmercury and Inorganic Mercury to the fetus and Breast-Fed Infant
- 22 Natalie C. Johnson, Shawn Manchester, Love Sarin, Yuming Gao, Indrek Kulaots and Robert Hurt *Environ. Sci. Technol.*, 2008, 42 (15), pp 5772-6778 Mercury Vapor Release from Broken Compact Fluorescent Lamps and In Situ Capture by New Nanomaterial Sorbents
- 23 L Ronnback and E Hannson. *Br J Ind Med* 1992 April 49(4): 233-240 Chronic encephalopathies induced by mercury or lead: aspects of underlying cellular and molecular mechanisms.
- 24 J. Hahn L. J., Kloiber, R, Vimy, M, J. Takahashi, Y., and Lorscheider F, L. (1989) dental "silver" tooth fillings: A source of mercury exposure revealed by whole-body image scan and tissue analysis. *FASEB. Journal*, 4, 3256-3260
- 25 Hugh Funderberg, MD. NVIC International Vaccine Conference, Arlington, VA September, 1997 Transcribed notes
- 26 FDA/EPA What You Need to Know About Mercury
- 27 Brain Degeneration www.IAOMT.org
- 28 Judith Miklossy, Angela R Kamer, Ananda Dasanayeke. Chronic Inflammation and Amyloidogenesis in Alzheimer's Disease: The emerging Role of Infection. P. 357 *Journal of Alzheimer's Disease* Vol 13 Number 4 May 2008
- 29 Yoshida M. Tohoku. Placental to fetal transfer of mercury and fetotoxicity *J Exp Med.* 2002 Feb; 196(2):79-88
- 30 UK Advisor to the Governments Environmental Health Agency on toxic metals Dr Bryan Hellewell 2000
- 31 James Flynn. *Economics & Human Biology*. Requiem for nutrition as the cause of IQ gains Raven gains in Britain 1938-2008
- 32 Geier DA, Geier MR. Dose Causal Relationship of Mercury in ASD, *The Journal of Toxicology & Environmental Health A.* 2007 May 15; 70(10):837-51.
- 33 Autistic children have also shown to have a severely reduced metallothionein deficiency suggesting this substance is being taken up by mercury. *American Journal of Epidemiology* 2001;154:909-915

- 34 Vojdani A & Co. Low natural killer cell cytotoxic activity in autism: the role of glutathione, IL-2 and IL-15 J Neuroimmunology 2008 Dec 15;205 (1-2):148-54. Epub 2008 Oct 16
35. David S. Baskin, Hop Ngo, and Vladimir V. Didenko. Thimerosal Induces DNA Breaks, Caspase-3 Activation, Membrane Damage, and Cell Death in Cultured Human Neurons and Fibroblasts Toxicological Science 2003 August 74(2): 361-368 (32)
- 36 Casein protein. WDDTY The Environmental Handbook P39, Journal of Allergy, 1968; 41:246
- 37 Zhongji Sun, J. Robert Cade, Melvin J. Fregly, R. Malcolm Privette. BCM-7 Induces Fos-Like Immunoreactivity in Discrete Brain Regions Relevant to Schizophrenia and Autism University of Florida, USA. Autism, Vol. 3 No.1, 67—83 (1999).
- 38 Wakefield AJ, Ashwood P, Limb K, Anthony A. The significance of ileo-colonic lymphoid nodular hyperplasia in children with autistic spectrum disorder Eur J Gastroenterol Hepatol 2005 Aug;17 (8): 827-36.
- 39 Nasrullah et al, 1986. Cerebral atrophy is an acquired wasting of the nervous tissue of the brain. Roche Lexikon Medizin, 4th edition
- 40 Alberti A, Pirrone P, Elia M, Waring RH, Romano C. Sulphation deficit in “low-functioning” autistic children: a pilot study. Allergy-Induced Autism
- 41 Low level lead in formula milk caused a similar breakdown of amyloid plaques found in human brains. The Journal of Neuroscience, DOI: 10, 1523/JNEUROSCI, 4405-07, 2008
- 42 Pritchard C, Baldwin D, Mayors A. Changing patterns of adult (45-75 years) neurological deaths in the major western world countries 1979-97, Public Health Volume 118, Issue 4, 268-283 June 2004 Pesticide residues Committee Quarterly Reports 2002
- 43 APO-E4 in LOAD, late onset Alzheimer’s Disease. Adapted from Roses, A.D. (1995) Sci. Am. Science & Med. 16-25. 44 Godfrey M, E. Wojcik D, P. Krone C, A. APO E4 genotyping as a potential biomarker for neurotoxicity Journal AD. 2003; 5: 189-195
- 45 Marcin Sadowski & Co A Synthetic Peptide Blocking the Apolipoprotein E/B-Amyloid Binding Mitigates B-Amyloid Toxicity and Fibril Formation in vitro and Reduces B-Amyloid Plaques in Transgenic Mice. Am J Pathol V.165 (3); Sep 2004
- 46 Nadezda Urosevic & Ralph Martins. Infection and Alzheimer’s Disease: The APO-E4 connection and lipid metabolism. J Alzheimer’s Disease 2006 Nov; 10(2-3); 255-66 (59)
- 47 Huggins & Levy. Electrophoretic band changes in CSF in MS patients after amalgam removal. Alternative Medicine Review V. 3, Number 4 1998
- 48 M C Royston & Co. ApoE2 Allele, Down’s Syndrome, and Dementia. Annals of the New York Academy of Sciences, Vol. 777 P. 255-259 Jan 1996
- 49 Centerwall, BS, Armstrong CW, Funkhouser, LS, Elzay, RP. Erosion of dental enamel among competitive swimmers at a gas-chlorinated swimming pool. Am J Epidemiology 1986 Apr; 123(4):641-7
- 50 Dr. med Victor N. Solopov, “Asthma Service” Chief Adviser. Translated from: “The Medical Newspaper”, (Moscow), N54, 21.07.2006

- 51 McDonald KL, Hug SI, Lix LM, Becker AB, Kozyrskyj AL. Delay in DPT vaccination is associated with a reduced risk of childhood asthma. *J Allergy Clin Immunol.* 2008 Mar; 121 (3):626-31 Epub 2008 Jan 18.
- 52 FDA. Investigations by the FDA were unable to locate any clinical studies formally evaluating the use of Thimerosal before its initial marketing in the 1930's.
www.safeminds.org
- 53 Boyd Haley. 10 of 13 children treated topologically with thimerosal agents in a Toronto hospital for umbilical infections, died of mercury toxicity.
- 54 Geier DA, Geier MR. A comparative evaluation of the effects of MMR immunization and mercury doses from Thimerosal-containing childhood vaccines on the population prevalence of autism. *Med Sc Monit.* 2004 Mar; 10(3): P133-9. Epub 2004 Mar 1. & JPS.org
- 55 Sweden Amalgam-thimerosal. Theory of Aetiology
- 56 Frustaci A, Magnavita N, Chimenti C. et al. Marked elevation of myocardial trace elements in idiopathic dilated cardiomyopathy compared with secondary cardiac function. *J. of American College of Cardiology*, 33, (6) pp.1578-83 1999.
- 57 Auyeung B, Baron-Cohen S, Ashwin E, Knickmeyer R, Taylor K, Hackett G. Fetal testosterone and autistic traits. *Br J Psychol.* 2009 Feb; 100 (Pt 1): 1-22. Epub 2008 Jun 10
- 58 Holmes, A. S., Blaxill, M. F., Haley, B.E. 2003 "Reduced levels of mercury in first baby haircuts of autistic children". *Int J Toxicology* 22 (4): 277-85
- 59 Hani Atamna & Kathleen Boyle. Amyloid-B peptide binds with heme to form a peroxide: Relationship to the cytopathologies of Alzheimer's disease *Proc Natl Acad Sci USA.* 2006 Feb 28; 103(9): 3381-3386
- 60 Heyer NJ, Bittner AC, Jr, Echeverria D, Woods JS. The Use of Urinary Porphyrins Analysis in Autism *Toxicology Lett.* 2006 Feb 20; 161(2):159-66 Epub 2005 Oct 7
- 61 Anne O Summers, Joy Wireman, Murray J. Vimy, Fritz L. Lorscheider, Bonnie Marshall, Stuart B. Levy, Sam Bennett & Lynne Barnard. Mercury Released from Dental Silver Fillings Provokes an Increase in Mercury and Antibiotic- Resistant Bacteria in Oral and Intestinal Primates *Antimicrobial Agents & Chemotherapy*, April 1993, p. 825-834
- 62 Amber Watts, Eileen M Crimmins, Margaret Gatz Inflammation as a potential mediator for the association between periodontal disease and Alzheimer's disease. *Neurosychiatr Dis Treat.* 2008 Oct; 4(5): 865-76
- 63 Gautum Dantas, Morten O. A Sommer, Rantimi D. Oluwasegun, George M. Church. Bacteria Subsisting on Antibiotics *Science* 4 April 2008: Vol 320 no. 5872, pp. 100-103
- 64 McIntyre TC. 2003. Databases and protocol for plant and micro organism selection: hydrocarbons and metals In *Phytoremediation: Transformation and Control of Contaminants*, ed. SC McCutcheon, JL Schnoor, pp.887-904. New York: Wiley
- 65 S Cheng. *Environmental Science Pollution Research Int.* 2003; 10(5):335-40

- 66 Suresh B and Ravishankar GA. Phytoremediation-a novel and promising approach for environmental clean-up. *Crit Rev Biotechnology*. 2004; 24(2-3):97-124. (71)
- 67 Jeffra K. Schaefer & Francois M, M. Morel High methylation rates of mercury bound to cysteine by *Geobacter sulfurreducens*. *Nature Geoscience* 2, 123-26 (2009)
- 68 Bonaventura C, Johnson FM. Healthy Environments for Healthy People: Bioremediation Today and Tomorrow. *Environmental Health Perspect*. 1997 Feb; Vol 105 Suppl 1; 5-20
- 69 Paul Stamets Bioremediation with fungi. Youtube
- 70 Boyle A.W., C.J. Silvin, J.P. Hassett, J.P. Nakas, and S.W. Tanenbaum, 1992 Bacterial PCB Biodegradation, *Biodegradation*, Vol. 3, pp. 285-298
- 71 Dr Herman Bueno. "Parasites are the missing diagnosis in the genesis of many chronic health problems." Fellow of the Royal Society of Tropical Medicine and Hygiene of London
- 72 Ultrasound And Algae Team Up To Clean Mercury Sediments. www.Physorg.com
- 73 Prof. Cyril W, Smith. Salford University. Ultrafine Bioresonance Therapy. Brugemann Institute, Pipinstrasse 10, D-8035 Gauting, Germany
- 74 Dr Peter Schumacher. Biophysical Therapy of Allergies. ISBN 3-13-137511-6 (GTV)
- 75 Hulda Clark. Cure for All Diseases
- 76 Cha C. A study on the effects of garlic to the heavy metal poisoning of rat. *J Korean Med Sci*, 1987 Dec, 2(4):213-224
- 77 K Kostial, D Kello, S Jugo, I Rabar, and T Maljkovic. Influence of age on metal metabolism and toxicity. *Environ Health Perspective*. V. 25; Aug 1978
- 78 Adachi & Co. Influences of Dietary Protein Levels on the Fate of Inorganic Mercury in Mice. *J Health Sci*, 54(2) 207-211 (2008)
- 79 Rowland IR, Robinson RD, Doherty RA. Effects of diet on mercury metabolism and excretion in mice given methylmercury; role of gut flora. *Arch Environ Health* 39: 401-408 (1984)
- 80 Zorn NE, Smith JT. A relationship between Vit B12, folic acid, ascorbic acid, and mercury uptake and methylation. *Life Sci* 1990; 47(2):167-73
- 81 Gregus Z, Stein AF, Varga F, Klaesson CD. Effect of Lipoic acid on biliary excretion of glutathione and metals. *Toxicol Appl Pharmacol* 114; 88-96 (1992)
- 82 Magos L, Webb M. The effect of selenium on the brain uptake of methylmercury. *Arch Toxicol*, 1977 Sep, 38:3, 201-7
- 83 Hannah Poling. Vaccines and Autism Revisited. *The New England Journal of Medicine* Vol. 359:655-656 August 7, 2008

Written by Stephen Allen

