HEAVY METAL poisoning is now so common that it is literally impossible to avoid it. Even newborn babies have been shown to have heavy metals as soon as they emerge from their mother’s womb, as well as receiving mercury from breastfeeding1-4. A recent report published by Reuters from the U.S. Environmental Working Group showed that blood samples of umbilical blood taken by the American Red Cross from ten babies contained an average of 287 contaminants, including mercury, fire retardants, pesticides and the Teflon chemical PFOA5.

Other research has shown a positive correlation between mercury levels in a mother’s breast milk and the number of dental amalgams in her mouth. The mean levels of mercury in milk of amalgam-free mothers was <0.2 microgram/L, while milk from mothers with 1-4 amalgam fillings contained 0.57 microgram/L, with 5-7 fillings 0.50 microgram/L and with more than seven fillings 2.11 micrograms/L6-7.

It has been suggested that this prenatal or postnatal exposure to toxic metals is probably responsible for more than 50 per cent of learning difficulties and cognitive disturbances in all U.S. children.

Many studies have estimated that more than 20 per cent of U.S. children have had their health or learning significantly adversely affected by toxic metals, such as mercury, lead, and cadmium8-9. Furthermore, toxic metals have been documented to be reproductive and developmental toxins, causing birth defects and damaging foetal development, as well as causing neurological effects, developmental delays, learning disabilities, depression, and behavioural abnormalities in many otherwise normal-appearing children10-13, 15-17.

According to the National Academy of Sciences (NAS), 60,000 American children are born every year with neurological problems caused by prenatal exposure to methyl mercury compounds from fossil-fuel and industrial air pollution14.

Chemists like Dr Boyd Haley remind us of the hard reality that “thiomersal (the vaccine preservative containing 50 per cent mercury) exposure results in toxic biochemical effects that fit very well with the biochemical observations seen in autistic children”.
children. These are:
1. Truncated neurons (ethylmercury inhibition of tubulin polymerisation) in brain tissue
2. Inability to make methyl-B12 and
3. The subsequent decrease in methylation of cellular constituents that require methylation to operate properly19-20.

Dr Russel Blaylock says: “Mercury is known to directly interfere with DNA repair enzymes as well as reduce function of all antioxidant enzymes, thereby greatly magnifying the degenerative effects of the microglial activation. Mercury is also a powerful inhibitor of GLT-1, the glutamate transport protein, even in very small concentrations. He continues: “In essence, most neurodegenerative and behaviour effects are caused by activation of the brain’s own immune system – the microglia cells.” Most foreign chemicals, but particularly mercury, can trigger this system into a neurotoxic overstressed state19.

**Conventional treatment**

Many health practitioners use synthetic chelating agents such as DMPS, DMSA, EDTA and others to mobilise and eliminate heavy metals from the body. There are advantages and disadvantages to using these. One advantage is the power of their mobilising activity – they are quick to mobilise and eliminate certain metals in the body, but this may place a huge burden on the body’s detoxification systems.

Further symptoms have been reported by natural medical physicians throughout the U.S., such as intractable seizures in paediatric patients and multiple sclerosis in adult patients, due to taking high doses of DMSA over extended periods of time21-23.

These are valid reasons to be at least cautious in the use of DMSA for the treatment of mercury toxic paediatric patients. The fragile brains and nervous systems of children with autism, PDD and seizure disorders should be handled with considerable care so as not to increase the damage.

DMSA and DMPS can certainly be life-saving drugs in cases of acute metal poisoning. Toxicologists have noted that synthetic chelators should be used only in cases of acute metal poisoning, or as a last resort for intractable chronic poisoning. Natural methods should be exhausted first.

### Natural heavy metal chelators

There are a number of purported, natural heavy metal chelators available, but only one has been investigated in depth using methodologically correct, double blind, placebo controlled trials. This natural product called HMD™ has undergone this “gold standard” study using 350 people at a cost of more than million U.S. dollars.

HMD™ is a patent-pending, proprietary synergistic blend of three natural ingredients in liquid form that are taken orally:
- Chlorella Growth Factor (CGF)
- Organic Coriandrum sativum leaf tincture
- Homaccord of cell-decimated, energised Chlorella

HMD is proven to successfully eliminate lead, antimony, arsenic, cadmium, mercury, nickel, bismuth, uranium and other toxic metals without eliminating essential minerals and with minimal side effects.

### The HMD research

The research initially began as a health impact study to determine the levels of heavy metals in 374 metal foundry workers in Russia. These were randomly chosen from a workforce of 2,000 people and screened using tissue hair mineral analysis in a reputable U.S. laboratory specialising in this type of analysis using ICP-MS instruments.

High levels of four major heavy metals – antimony, arsenic, cadmium and lead – were identified in the hair samples. The metals were common to the entire workforce as they were by-products of the production process.

From the initial screening sample 106 people were selected to take the HMD in different dosages, and with various ingredient combinations to determine dose-response relationships and efficacy of the various combinations.

Neither the participants, researchers nor the analytical chemists doing the spectrometry analysis knew which treatment protocol each participant belonged to. The coding was stored in the coordinators safe until it was time to interpret the statistical data. All participants signed an informed consent form after discussion of the research protocols. A medical team was on standby 24-hours a day to deal with any potential side-effects. Each participant provided a baseline sample of urine (24-hour collection) and faeces before taking HMD. Both urine and faeces were taken to determine the excretory route used by the various substances tested. These samples were returned to the research team and circumspectly recorded in preparation for ICP-MS analyses using two independent laboratories in Russia and the U.S.

Table 1 shows the summarised results of a number of different

<table>
<thead>
<tr>
<th>METALS</th>
<th>Mean % increase of Placebo</th>
<th>Mean % increase after provocation</th>
<th>N=</th>
<th>Statistical Significance (p=)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARSENIC-U</td>
<td>11.16%</td>
<td>7,409%</td>
<td>84</td>
<td>p&lt;0.0005</td>
</tr>
<tr>
<td>ARSENIC-F</td>
<td>61.13%</td>
<td>59.83%</td>
<td>84</td>
<td>p&lt;0.05</td>
</tr>
<tr>
<td>LEAD-U</td>
<td>-16.95%</td>
<td>466.47%</td>
<td>84</td>
<td>p&lt;0.005</td>
</tr>
<tr>
<td>LEAD-F</td>
<td>-6.012%</td>
<td>142.16%</td>
<td>84</td>
<td>p&lt;0.05</td>
</tr>
<tr>
<td>CADMIUM-U</td>
<td>-27.91%</td>
<td>67%</td>
<td>84</td>
<td>p&lt;0.05</td>
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<tr>
<td>CADMIUM-F</td>
<td>22.62%</td>
<td>43.13%</td>
<td>84</td>
<td>p&lt;0.05</td>
</tr>
<tr>
<td>ANTIMONY-U</td>
<td>14.91%</td>
<td>59.16%</td>
<td>84</td>
<td>p&lt;0.05</td>
</tr>
<tr>
<td>ANTIMONY-F</td>
<td>6.61%</td>
<td>50%</td>
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<td>p&lt;0.05</td>
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<tr>
<td>NICKEL-U</td>
<td>5.52%</td>
<td>80%</td>
<td>77</td>
<td>p&lt;0.158</td>
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<tr>
<td>BISMUTH-U</td>
<td>7.95%</td>
<td>564%</td>
<td>19</td>
<td>p&lt;0.04</td>
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<tr>
<td>URANIUM-U</td>
<td>18.23%</td>
<td>707%</td>
<td>76</td>
<td>p&lt;0.03</td>
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<tr>
<td>MERCURY-U</td>
<td>0.799%</td>
<td>448%</td>
<td>56</td>
<td>p&lt;0.005</td>
</tr>
</tbody>
</table>

*see Independent Mercury Trial Using HMD™
Table 2. Mean elimination of metals in urine in the post-provocation sample after the HMD™ was taken for 12 hours expressed as a % increase or decrease (N=84).

Table 3. Mean elimination of metals in faeces in the post-provocation sample compared to placebo (expressed as a % increase or decrease) (N=84).
Figure 1


The author

Dr Georgiou has been an active clinician for 25 years, and Natural Medicine Director and Founder of the DaVinci Natural Health Center* as well as the DaVinci LifeSciences Research Center, in Larnaca, Cyprus, which specialises in the treatment of chronic diseases.

He is also the principal investigator of the HMD™ research and the worldwide patent-pending owner. He has nine degrees and diplomas in Natural Medicine from the U.K. and U.S., including the Biological Sciences, Clinical Nutrition, Naturopathy, Herbal Medicine, Iridology, Homeopathy, Su Jok Acupuncture, Clinical Psychology and Clinical Sexology as well as specialised training in VEGA bio-dermal screening, bioresonance, Live Blood Analysis, Thermography, ART, HRV, Heavy Metal testing using spectrometers, and other modalities.

He is the International European Director for the University of Natural Medicine and founder of the DaVinci College of Natural Medicine in Cyprus. Tel: 00357-24-823322

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