This is the specific cite proving EDTA binds mercury and its interaction with brain tubulin. The research below shows mercury chelation must precede EDTA chelation therapy.

There is a vast body of experience from chelation doctors that says the opposite. Dr. Garry Gordon of CaEDTA fame and Drs. Mcdonaugh and Cranton of NaEDTA fame have used EDTA for decades without overt or suspected evidence of neurological complications whether amalgams were present or not. My question to these doctors who ignore the presence of mercury in the teeth would involve whether or not their patients who successfully survived cardiovascular deaths, later had Alzheimer's Disease (AD).

While those physicians mentioned above criticize Haley's work because it was done in vitro (meaning in the laboratory) as opposed to in vivo (meaning in the living body) making his results are invalid. Haley deducted his conclusion by saying:

> After our laboratory demonstrated that tubulin had diminished biological activity in AD brain, and only AD brain, we searched for possible toxicants that might mimic this biological problem. Our finding was simple and straight-forward. After testing numerous heavy metals we observed that only mercury-II cation (Hg\(^{2+}\)) could mimic this effect in homogenates of normal brain at concentrations that might be expected to be found under toxic conditions (3,4).

This presents my clinical dilemma. I have an expert with verified scientific research showing the HgEDTA interacts with brain tubulin and actually shows the HgEDTA complex potentiates the effect of mercury.

I have used DMPS for decades with safety and success in lowering the total body burden of mercury. When I first read of Dr. Haley's work, I called him on the phone and we had an extended conversation regarding his findings. It must be realized that much medical scientific work is done in vitro and this is usually scientifically approved. I believe Haley has a valid claim and the last thing I want to save a patient from a cardiovascular event only to have them stricken with Alzheimer's Disease. I have covered the mercury association with AD elsewhere on this site. After you read these two short papers, I think you will understand that there is no dilemma - mercury must be removed from the soft tissue prior to EDTA chelation therapy.

P. Braun, M.D.


**HgEDTA complex inhibits GTP interactions with the E-site of brain beta-tubulin.**


Division of Medicinal Chemistry and Pharmaceutics, College of Pharmacy, University of Kentucky Medical Center, Lexington.

We have found that EDTA and EGTA complexes of Hg2+, which conventional wisdom has assumed are biologically inert, are potentially injurious to the neuronal cytoskeleton. Tubulin, a major protein component of the neuronal cytoskeleton, is the target of multiple toxicants, including many heavy metal ions. Among the mercurials, inorganic mercuric ion (Hg2+) is one of the most potent inhibitors of microtubule polymerization both in vivo and in vitro. In contrast to other heavy metals, the capacity of Hg2+ to inhibit microtubule polymerization or disrupt formed microtubules cannot be prevented by the addition of EDTA and EGTA, both of which bind Hg2+ with very high affinity. To the contrary, the addition of these two chelating agents potentiates Hg2+ inhibition of tubulin polymerization. Results herein show that HgEDTA and HgEGTA inhibit tubulin polymerization by disrupting the interaction of GTP with the E-site of brain beta-tubulin, an obligatory step in the polymerization of tubulin. Both HgEDTA and HgEGTA, but not free Hg2+, prevented binding of \([32P]8N3GTP\), a photoaffinity nucleotide analog of GTP, to the E-site and displaced bound \([32P]8N3GTP\) at low micromolar concentrations. This complete inhibition of photoinsertion into the E-site occurred in a concentration- and time-dependent fashion and
was specific for Hg2+ complexes of EDTA and EGTA, among the chelating agents tested. Given the ubiquity of Hg2+ in the environment and the widespread use of EDTA in foodstuffs and medicine, these mercury complexes may pose a potentially serious threat to human health and play a role in diseases of the neuronal cytoskeleton.

PMID: 8212009 [PubMed - indexed for MEDLINE]

This was repeated in 1996 by Haley.

**Results from the Boyd Haley Laboratory relating to toxic effects of mercury to exacerbation of the medical condition classified as Alzheimer's Disease**

Research regarding Alzheimer's disease (AD) in our laboratory has been directed towards detecting aberrancy in the nucleotide binding proteins of AD post-mortem brain versus age matched control brain samples. Basic to all of our findings is the following observation. Two very important brain nucleotide binding proteins, tubulin and creatine kinase (CK), show greatly diminished nucleotide binding ability and they are abnormally partitioned into the membrane fraction of AD brain tissue (1,2). What tubulin and CK have in common is that both have a very reactive sulfhydryl in their active sites that, if modified, inhibits their biological activity (14, 15). Mercury has a very high affinity for sulfhydryls and has been proven to be a potent inhibitor of both of these proteins biological activity.

After our laboratory demonstrated that tubulin had diminished biological activity in AD brain, and only AD brain, we searched for possible toxicants that might mimic this biological problem. Our finding was simple and straight-forward. After testing numerous heavy metals we observed that only mercury-II cation (Hg^{2+}) could mimic this effect in homogenates of normal brain at concentrations that might be expected to be found under toxic conditions (3,4). The observation was that Hg^{2+} at 1-5 micromolar levels could selectively and totally abolish the binding activity of tubulin without any noticeable effect on other proteins. This gave a nucleotide binding profile that was identical to that observed in AD brain (4,5,6). Further, recent results in our laboratory have shown that the addition of Hg^{2+} to control brain homogenates not only caused the decrease in nucleotide interaction but could also cause the abnormal partitioning of tubulin into the particulate fraction as observed in AD brain (7). This was especially effected in the presence of other metals (see below).

The next set of experiments was to determine if mercury vapor, the form that escapes from dental amalgams, could mimic the effect in rats exposed to such vapor for various periods of time (5). Rats are different from humans in that their cells can synthesize vitamin C whereas humans have to ingest vitamin C. Vitamin C is thought to be somewhat protective against heavy metal toxicity and other oxidative stresses. However, we observed that the tubulin in the brains of rats exposed to mercury vapor lost between 41 and 75 percent of the nucleotide binding capability demonstrating a Hg^{2+} induced similarity to the aberrance observed in AD brain (5). Consistent with this was a recent report by Dr. Michael Aschner of Wake Forrest University at the 1998 Spring IAOMT meeting. He stated that Western blot analysis of brains of rats exposed to mercury vapor (as above) showed elevated levels of an enzyme called glutamine synthetase (GS) when compared to non-treated controls. This is consistent with a report published from our laboratory in 1992 where we predicted that the elevation of GS in the cerebrospinal fluid of AD patients had potential as a diagnostic marker for AD (12). This potential value of GS as a diagnostic aid for AD was recently confirmed by German scientists (16). We feel that, while mercury has effects on tubulin, CK and GS and that these proteins are proven to be aberrant in AD, this still does not conclusively prove that mercury exposure causes AD. However, it definitely proves that chronic, daily exposure to mercury would exacerbate the clinical conditions of Alzheimer's disease by the ability of low doses of mercury to inhibit enzymes known to be inhibited in AD brain.

We were interested in the genetic research regarding AD and followed this work to see if it correlated to our results. That is, does susceptibility to heavy metal toxicity have any relationship to AD? When we read the correlation of APO-E4 to age of onset of AD we were intrigued enough to look at the primary structure of this protein and its alleles, APO-E2 and APO-E3. In general, the story is this. Individual with
APO-E2 or combinations of APO-E2 and E3 are much less likely to get AD than are individuals who have inherited APO-E4 genes. Also, APO-E2 appears to be more protective than APO-E3 against AD. What is the basic structural difference between these three alleles? Simply, the protective APO-E2 has two sulfhydryls (cysteines) which can bind mercury or other heavy metals that APO-E4 lacks. For example, in APO-E3, one of these cysteines is replaced by an arginine and in APO-E4, both of the cysteines are replaced by arginine. Therefore, lack of protection against AD follows loss of sulfhydryls from APO-E proteins (6). What does APO-E protein do. It is involved in cholesterol transport and all three forms work reasonably well at this. However, APO-E is classified as a "housekeeping protein". That is, in contrast to tubulin and CK which are meant to stay inside of cells where they are synthesized, APO-E is meant to leave the cell carrying unwanted material for the body to dispose of. In the brain, APO-E protein leaves brain cells and goes into the cerebrospinal fluid (CSF) and then crosses the blood brain barrier into the blood plasma. It is cleared from the blood by processes that dispose of the unwanted material that it is carrying. It is our hypothesis that while APO-E2 or E3 are leaving the brain cells and traversing the CSF they likely bind any heavy metal or other sulfhydryl reactive toxin that may have made it into the central nervous system (6). APO-E4 could not do this and therefore loses the protective parameters that APO-E2 and E3 have. It is interesting to note that the second highest level of APO-E protein is in the CSF that bathes and protects the brain cells.

There was considerable debate concerning whether or not mercury reaches levels in the brain that could be considered toxic. The determination of the levels of mercury toxicity that could cause neurological disease has been done using animals, such as rats, under tightly controlled laboratory conditions where the diet is carefully monitored to exclude other toxicants. However, humans do not live under such restricted conditions and heavy metal imbalances in AD brains have been reported numerous times. For example, lead (Pb) toxicity is not that uncommon in the inter-city environment or for those exposed to leaded gasoline fumes for many years. The latest research in our laboratory has shown that one can add various metals to human brain homogenates to levels that do not affect nucleotide binding to tubulin yet the very presence of these metal potentiate the toxicity of mercury. That is, the presence of Zn\(^{2+}\) and Cd\(^{2+}\), at non-toxic levels, decrease the amount of Hg\(^{2+}\) required for 50% inhibition of tubulin or creatine kinase viability. When we compare the toxicity of Hg\(^{2+}\) in brain homogenates as described above (refs. 3 & 4) the addition of 0, 10 and 20 micromolar Zn\(^{2+}\) increases the inhibition of GTP binding to tubulin from 4% to 50% and 76%, respectively (7,13). In other words, mercury is much more toxic in the presence of other metals that compete with mercury for the binding sites on protective biomolecules (e.g., APO-E2 & E3, glutathione, metallo-thionine, etc.). This observation probably explains some observations on the toxicity of solutions in which dental amalgams have been soaked. The most recent publication in this area seems to put an end to the argument as to whether or not mercury from dental amalgams pose a threat to the exacerbation of AD. Olivieri et al. demonstrated that exposure of neuroblastoma cells to 36 X 10\(^{-8}\) molar Hg\(^{2+}\) caused an increased secretion of β-amyloid protein 4 to 6 hours later and increased phosphorylation of the microtubulin protein Tau (17). Both of these biochemical changes are uniquely observed in AD brain tissues and β-amyloid protein makes up the ‘amyloid plaques’ that are the hallmark diagnostic marker for AD on brain pathology. A very strong component of AD researchers believe that amyloid protein is the cause of AD. Therefore, mercury exposure at nanomolar levels causes neuroblastoma cells to produce a protein that is believed to be involved directly in AD. However, this data supports the initial contention from the Haley laboratory that mercury first inhibits enzymes like tubulin, creatine kinase and glutamine synthetase and dramatically affects metabolism. After these inhibitions occur the cell responds to the cytotoxicity by producing and secreting amyloid protein which forms the amyloid plaques observed on brain pathology and used to substantiate the AD diagnosis. To the point, amyloid plaques are the result of AD, not the cause. The cause is exposure to environmental toxicants like mercury.

Wataha et al. (8) reported that extracts of the amalgam material (trade name, Dispersalloy) "was severely cytotoxic when Zn release was greatest, but less toxic between 48 and 72 hours as Zn release decreased". Zn is an essential metal needed for health and many times recommended by physicians to be taken in supplemental form. It is my opinion that the increased toxicity was not caused by direct Zn toxic effects. Rather, enhanced toxicity was due to the Zn potentiated toxicity of mercury caused by Zn\(^{2+}\) occupying biomolecule chelation sites resulting in a higher concentration of free Hg\(^{2+}\) capable of inhibiting the activity of critical nucleotide binding proteins such as tubulin and CK. This raises the question if...
mercury is released from amalgams under similar conditions. Chew et al. (9) tested the "long term dissolution of mercury from a non-mercury-releasing amalgam (trade name Composil)". Their results demonstrated "that the overall mean release of mercury was 43.5 +/-3.2 micrograms/cm²/24hr, and the amount of mercury released remained fairly constant during the duration of the experiment (2 years)". In my opinion, this is not an insignificant amount of mercury exposure if one considers the number of years a 70 year old individual living today may have been exposed. In the Haley laboratory we soaked amalgam fillings in distilled water and then tested the resulting solution for toxicity. The results were obvious, the water was now extremely toxic and when added to brain homogenates dramatically inhibited the viability of tubulin and creatine kinase, exactly as observed when we added mercury cation. The bottom line is that mercury toxicity is enhanced by the presence of other heavy metals and both are released from dental amalgams. Additionally, when one considers the toxicity of a certain body level of mercury it is somewhat meaningless unless the body level of other heavy metals is also considered.

Many recent literature and popular press reports state that the presence of periodontal disease raises the risk factor or exacerbates the condition of several other seemingly unrelated diseases such as stroke, low birth weight babies, cardiovascular disease (See October 1996 issue of Periodontology). The anaerobic bacteria of periodontal disease produce hydrogen sulfide (H₂S) and methyl thiol (CH₃SH) from cysteine and methionine, respectively. This accounts for the "bad breath" many individuals have. However, in a mouth that produces H₂S, CH₃SH (from periodontal disease) and Hg²⁺ (from amalgam fillings) the very likely production of their reaction products, HgS (mercury sulfide), CH₃S-Hg-Cl (methyl thiol mercury chloride) and CH₃S-Hg-S-CH₃ (Dimethylthiol mercury) has to occur. This is simple, un-refutable chemistry whose presence is supported by easily observable amalgam tattoos. These tattoos are purple gum tissue surrounding certain teeth where the gum and tooth meet and caused by HgS as determined by mercury analysis of such tissue. HgS is one of the most stable forms of mercury compounds and is the mineral form of mercury, called cinnabar, from which mercury is mined from the earth). All of these compounds are classified as extremely toxic and the latter compound, dimethylthiol mercury is very hydrophobic and it solubility similar to dimethyl mercury. Dimethyl mercury was the compound that was recently in the press where only a small amount spilled on the latex gloves of a Dartmouth University professor caused severe medical problems and finally death. Logic implies that anyone with periodontal disease, anaerobic bacterial infected teeth and mercury containing fillings would be exposed daily to these very toxic compounds. In the Haley laboratory we synthesized the two methylthiol-mercury compounds and tested them. They are extremely cytotoxic at 1 micromolar or less levels and are potent, irreversible inhibitors of a number of important mammalian enzymes, including tubulin and CK.

To determine if toxic teeth could have an effect on the enzymes/proteins of human brain we have done the following study. Several very toxic teeth were incubated for 1 hour in distilled water. Aliquots of these solutions were then added to control human brain homogenates and the resulting samples tested for enzyme viability. The result showed that several of the solutions, but not all, in which toxic teeth had been incubated inhibited the viability of the same enzymes that are found to be inhibited in AD brain. Therefore, depending on the type of anaerobic bacterial infection in avital teeth it is possible to have a toxicant production that would exacerbate the condition classified as AD.

In summary, the data on the effects of mercury on the nucleotide binding properties and the abnormal partitioning of two very important brain nucleotide binding proteins first suggested that mercury must be considered as a contributor to the condition classified as AD. This is strongly supported by the recent finds that nanomolar levels of mercury causes neuroblastoma cells to secrete β-amyloid protein and increase phosphorylation of the microtubulin associated protein Tau, both major biochemical observations related to AD. Consideration of mercury as an exacerbating factor is especially relevant when mercury is present in combination with other heavy metals such as zinc (Zn) cadmium (Cd) and lead (Pb). Bluntly, the determination of safe body levels of mercury by using animal data where the animals have not been exposed to other heavy metals is no longer justifiable. Mercury is much more toxic to individuals with other heavy metal exposures. As I have been sent numerous lab reports on levels of elements in the hair and other tissues of suspected mercury toxic patients I have noticed that many have exceedingly high Pb, Cd, Cu, Zn, etc. levels. It is my opinion that one of the major questions left to be answered concerning the toxic effects of mercury is "does the combination of mercury with different heavy metals lead to different clinical observations of toxicity?" There can be little doubt that the elevated...
levels of other heavy metals increases the toxicity of mercury. Further, the reaction of oral mercury from amalgams and the reaction of this mercury with toxic thiols produced by periodontal disease bacteria very likely enhances the toxicity of the mercury being released. This makes any claim regarding the determination of safe levels of mercury as obtained under controlled conditions (e.g. in a system where other heavy metals are excluded) very suspect when discussing toxic mercury effects in the uncontrolled environment that humans are exposed to.

Bibliography


Duhr, E.F., Pendergrass, J. C., Slevin, J.T., and Haley, B. HgEDTA Complex Inhibits GTP Interactions With The E-Site of Brain β-Tubulin Toxicology and Applied Pharmacology 122, 273-288 (1993).


Olivieri, G., Brack, Ch., Muller-Spahn, F., Stahelin, H.B., Herrmann, M., Renard, P., Brockhaus, M. and Hock, C. Mercury Induces Cell Cytotoxicity and Oxidative Stress and Increases β-amyloid
The following are Haley links regarding mercury and disease, particularly ASD.

1. Professor Boyd Haley
   "Dr. Boyd Haley is a chemist from the University of Kentucky who is obsessed with the terrible dangers of mercury. Because of this, he is a darling of both ..." [link to ratbags.com]
2. Boyd Haley PhD
   "Boyd Haley, Ph.D., a biochemist at the University of Kentucky, is probably one of the world's top experts on mercury toxicity. ..." [link to whale.to]
3. Letter by Boyd Haley
   "Boyd E. Haley, Professor and Chair, Department of Chemistry, University of Kentucky. REFERENCES: 1. a. Duhr, E.F., Pendergrass, J. C., Slevin, J.T. ..." [link to whale.to]
4. Dr. Boyd Haley on Mercury toxicity & Autism: Part 1
   "Dr. Boyd Haley is a professor and chair of the chemistry department at the University of Kentucky. In this interview, Dr. Haley discusses me ..." [link to video.google.com]
5. Boyd Haley - Wikipedia, the free encyclopedia
   "Dr. Boyd E. Haley, MD (b. September 22, 1940, Greensburg, Indiana), is a professor at the University of Kentucky, where he has been the chairman of the ..." [link to en.wikipedia.org]
6. Research Interests of the Haley Group
   "Boyd E. Haley. Professor of Chemistry Bioorganic Chemistry, Office: ASTeCC A057 Phone: (859) 257-2300 x246 FAX: (859) 323-1069 Email: behaley@uky.edu ..." [link to chem.uky.edu]
7. Boyd E. Haley Publications
8. AGE OF AUTISM: BOYD HALEY RESPONDTS TO CA AUTISM NUMBERS
   "13 Jan 2008 ... Thanks to www.vaccinationnews.com for allowing us to link THIS LETTER by Dr. Boyd Haley of the U. of Kentucky Chemistry department. ..." [link to ageofautism.com]
9. AGE OF AUTISM: BOYD HALEY LETS 'EM HAVE IT
   "[Editor's Note: Boyd Haley, the University of Kentucky chemistry ... Listed below are links to weblogs that reference BOYD HALEY LETS 'EM HAVE IT: ..." [link to ageofautism.com]
10. ToxicTeeth.net – Dr. Boyd Haley's Curriculum Vitae
    "Briggs, F., Norman, Al-Jumaily, Walid and Haley, Boyd. Photoaffinity Labeling of the (Ca+Mg) ATPase of Skeletal and Cardiac Sarcoplasmic Reticulum with ..." [link to toxictooth.net]
11. Consumers for Dental Choice - working for mercury-free dentistry ...
    "Dr. Boyd Haley's Rebuttal to the ADA: Letter written in response to May 11th response by Robert M. Anderton, D.D.S., J.D., LL.M. and President of the ADA, ..." [link to toxictooth.net]
12. Autism Blog - Boyd Haley and Mark Geier: Experts? | Left Brain ...
    "7 Jul 2006 ... Autism Blog - In case you didn't know, as well as vaccines, the mercury militia also think that the thimerosal in RhoGAM given to pregnant ..." [link to leftbrainrightbrain.co.uk]
13. Respectful Insolence (a.k.a. "Orac Knows"): Salon.com flushes its ...
    "RFK Jr. cites Professor Boyd Haley, Chairman of the Department of ... This is the same Boyd Haley who got into trouble last year for labeling autism as "Mad ..." [link to oracknows.blogspot.com]
14. Haley Boyd, 18: Obliterative : Kitsap Sun
    "Haley Lynne Boyd, 18, a resident of Port Orchard, died November 19, 2007 in Port Orchard due to an asthma attack. She was born to N. Denny Boyd-Pointdexter ..." [link to kitsapsun.com]
15. VACCINE RISK AWARENESS NETWORK - "INTERVIEW WITH DR. BOYD HALEY ON ...
    "Interview with Dr. Boyd E. Haley: Biomarkers supporting mercury toxicity as the major exacerbator of neurological illness..." [link to vran.org]
16. VACCINE RISK AWARENESS NETWORK - "Affidavit Of Boyd E. Haley ...
    "Vaccine Risk Awareness Network-Thimerosal or methyloliate is a derivative of thiolaclylate where ethyl mercury is attached though the sulfurr." [link to vran.org]
17. 040406 Teri Small w/ Boyd Haley
    "Interview with Dr. Boyd E. Haley: Biomarkers supporting mercury ... I'm pleased to be joined by Dr. Boyd Haley. Boyd Haley, ..." [link to spdialertota.org]
    "Mercury Toxicity & Autism Part 1 Dr. Boyd Haley is a professor and chair of the chemistry department at the University of Kentucky." [link to youtube.com]
19. YouTube – Boyd Haley, PhD Speaks at Mercury-Free Vaccines Rally
    "10 Jun 2007 ... Boyd Haley, PhD, Chair of the Dept. of Chemistry at Univ of Kentucky, speaks about the damage done to a generation of children by mercury ..." [link to youtube.com]
20. Tobacco Science and the Thimerosal Scandal
    "Robert F. Kennedy Jr. Telephone Interview with Boyd Haley, April 9, 2005. ..." [link to youtube.com]
21. Researcher Refutes ADA in Congressional Testimony - Articles
    "Dr. Haley postulated that this could be a potential cause of autism and Alzheimer's disease." [link to articles.mercola.com]
22. neurodiversity weblog: Unchelated Autistics "Just Lost"??
   "In his December 23 article, Gold Salts Pass A Test, Dan Olmsted quotes Boyd Haley's callous, gratuitous, unsubstantiated statement, "these older kids are ..." neurodiversity.com | petition to defend the dignity of autistic ...

24. Boyd Haley: Tagging Toxins for Better Health

26. Letter from Professor Boyd Haley concerning Vaccination News
   "Thank you, Boyd. You can't imagine how much it means to have helped you in the extraordinary work you are doing. - Sandy. About Professor Boyd Haley ..." www.vaccinationnews.com/Boyd_Haley_letter.htm

27. Boyd Haley, PhD Speaks at Mercury-Free Vaccines Rally on Technorati
   "Boyd Haley, PhD, Chair of the Dept. of Chemistry at Univ. of Kentucky, speaks about the damage done to a generation of children by mercury in vaccines at ..." technorati.com/videos/youtube.com/%2Fwatch%3Fv%3DaJu47LbCzEnI

28. Adventures in Autism: Mark Blaxill and Boyd Haley Respond to...
   "19 Mar 2008 ... Comment from Boyd Haley: ...Attached is a letter Mark Blaxill and I prepared and sent to the Pediatrics Journal in response to a Pichichero ..." adventuresinautism.blogspot.com/2008/03/mark-blaxill-and-boyd-haley-respond-to.html

29. Adventures in Autism: USAAA: Q&A with Dr. Boyd Haley
   "28 Oct 2006 ... Dr. Boyd Haley: Vaccines are not the only exposure to mercury or thimerosal. Remember merthiolate, or methyl mercury from fish? ..." adventuresinautism.blogspot.com/2006/10/usaaa-qa-with-dr-boyd-haley.html


31. Immunization Safety Review: Meeting 9: Haley Presentation ...
   "Immunization Safety Review: Meeting 9: Haley Presentation." www.iom.edu/?id=18420

32. Dr. Boyd Haley Exposes the Phony Science on Amalgam "Safety"
   "Dr. Boyd Haley, Chair and Professor of the Chemistry Department at the University of Kentucky exposes the phony science that was the basis of NIH, FDA, CDC, ..." www.mercurypoisoned.com/research/phony_science.html

33. Urine Porphyrin Profile Test for Mercury
   "I wrote to Dr. Boyd Haley about the Urine Porphyrin test he recommended for the poisoned children at the Kiddie College Day Care in Franklinville, ..." www.mercurypoisoned.com/new/urine_porphyrin_test.htm

34. USE OF MERCURY IN DENTAL amalgams: BOYD HALEY, PH.D. - Congressional USE OF MERCURY IN DENTAL AMALGAMS: BOYD HALEY, PH.D. - 00-00-0000 Statement of Boyd Haley, Ph.D., Professor and Chair of the: Encyclopedia.com." wwwencyclopedia.com/doc/1P1-69650967.html

35. AutismWeb.com :: View topic - boyd haley chelator
   "boyd haley chelator - Post new topic - Reply to topic ... Posted: Fri May 09, 2008 12:13 pm Post subject: boyd haley chelator, Reply with quote ..." www.autismweb.com/forum/viewtopic.php?f=15495&t=60557d3204640645bfe87b993736b979

36. AutismWeb.com :: View topic - Interview with Boyd Haley
   "As far as Boyd Haley's New chelator we been waiting well over two summers now since it was supposed to go into clinical trials after the animal trials. ..." www.autismweb.com/forum/viewtopic.php?f=14109&tview=next&sid=17721a2e55fe32d3f8a8aa1e0f82f

37. Interview with Boyd E. Haley: Biomarkers supporting mercury ...
   "Interview with Boyd E. Haley: Biomarkers supporting mercury toxicity as the major exacerbator of neurological illness, recent evidence via the urinary ..." www.redflagsdaily.com/articles/2006/jun23

38. KOMU.com - Behind the Scenes - Dr. Boyd Haley - Coverage You Can ...
   "Behind the Scenes - Dr. Boyd Haley. KOMU research assistant Meredith Miller put this video together to show what it was like putting this story together, this story ..." www.komu.com/satellite/SatelliteRender/KOMU.com/e4346c77-c0a8-2f11-0149-4b4f524013be/e62477ca-80ce-0971-0116-8564b0b113

39. Mercury Biochemistry and its Relationship to Neurological Diseases ...
   "Dr. Boyd Haley Professor Department of Chemistry University of Kentucky. VISUALIZATION OF MERCURY EMITTING FROM A DENTAL AMALGAM ..." www.autismone.org/uploads/2007/Boyd%20Haley%20AO%202007%20presentation.ppt

40. Autism One 2008 Conference Abstracts

41. Haley B
   "Haley B (B), 0, 0, 0, 21, 0, 128. Haley B (Barbara). 0, 0, 4, 0, 2. Haley B (Benjamin). 0, 0, 6, 0, 99. Haley B (Boyd). ..." lib.bionio.info/auth:Haley,B

42. Origins of Autism
   "You may be familiar with the work of Dr. Boyd Haley, who chairs the University of Kentucky's chemistry department and is one of America's foremost experts ..." v.mercola.com/blogs/public_blog/Origins-of-Autism-15861.aspx

43. Dr John Roberts Dental Practice - Articles
   "Results from the Boyd Haley Laboratory relating to toxic effects of mercury to exacerbation of the medical condition classified as Alzheimer's Disease ..." www.holistic-dentistry.com/artalzheimer.asp

44. Interview with Boyd E. Haley: Biomarkers supporting mercury ...
51. Onibasu.com
59. Boyd Haley
54. Boyd
47. Dr.
64. NashvilleG:
49. Autism - There is Hope - Conference Speakers
56. Boyd Haley
62. Holistic Dentistry - Biological Dentist - Mercury Free Dentist
55. AFFIDAVIT OF
60. Autism Society of the Bluegrass - Jan 21 Dr.
53. Democratic Underground -
61. USAAA
48. The Last Outpost
65. Medical Health Support :: View topic - Peter (ratty)
45. ASOMAT
58. Boyd Haley
46. Reduced levels of mercury in first baby haircuts of autistic children.
“Holmes AS, Blaxill MF, Haley BE. SafeMinds, Cambridge, Massachusetts, USA. Reported rates of autism have increased sharply in the United States and the ... www.ncbi.nlm.nih.gov/pubmed/12933322
47. Dr. Boyd Haley on Mercury Toxicity & Autism - Part 4 - AOL Video
“Dr. Boyd Haley is a professor and chair of the chemistry department at the University of Kentucky. In this interview, Dr. Haley discusses mercury tox... video.aol.com/video-detail/dr-boyd-haley-on-mercury-toxicity-and-autism-part-4/2007405789
The Last Outpost
“The Last Outpost. Video 1 > Health > Dr. Boyd Haley. [, Dr. Boyd Haley on Mercury Toxicity and Autism, | ..." www.thelastoutpost.com/site/1065/default.aspx
49. Autism - There is Hope - Conference Speakers
“Boyd Haley PhD. Image Dr. Haley received his BS in Chemistry/Physics from Franklin College in 1963. From 1964 to 66 he served as a medic in the U.S. Army. ...” www.autismthereishope.org/index.php?option=com_content&task=view&id=19
Onibasu.com :: [Autism-Mercury] Boyd haley report
“boyd haley report “Maria & Jack Rawlings” <jamaraw@a...> ... Next in same thread: Re: boyd haley’s new chelator? What is it, what is it?!” Jan” <pxfimage>; Next by date: Re: Boyd haley’s new chelator?” onibasu.com/archives/am/203450.html
Onibasu.com :: [Autism-Mercury] boyd haley report
“boyd haley report “Maria & Jack Rawlings” <jamaraw@a...> ... Next in same thread: Re: boyd haley report “masktharrett <mtharrett@r...> ...” onibasu.com/archives/am/68999.html
51. Vaccines, Autism, and Mercury: Dr. Boyd Haley (video)
“The most active alternative health forum on the Internet. From vaccines to mercury toxicity to herbal alternatives to modern diseases, our forum has it all.” herballure.com/ubbthreads/showflat.php?Board=Autism&Number=249483
52. Democratic Underground - BTW, Dr. Boyd Haley is... - Democratic ...
“BTW, Dr. Boyd Haley is... hunter, Dec-11-06 02:08 PM, #3. You are confusing Dr Haley with J B Handley, yankhadenuf, Dec-16-06 06:28 PM, #10 ...” www.democraticunderground.com/discuss/dubo.php?az=show_mesg&forum=387&topic_id=135&mesg_id=139
53. Boyd E
“Boyd E. Boyd, PhD. Chairman of the Department of Chemistry at the University of Kentucky from 1996-2005, Professor Haley is now devoting additional time to ...” www.drneubrander.com/Files/BioChat%2020051213%20-%20Boyd%20Haley.doc
54. AFFIDAVIT OF BOYD E. HALEY, PROFESSOR AND CHAIR, DEPARTMENT OF ...
55. Boyd Haley Windows Media video
“Dr. Boyd Haley discusses thimerosal & dental amalgams. CLOSE WINDOW." www.autismmedia.org/haley3w.html
56. Boyd Haley Windows Media video
“Dr. Boyd Haley discusses thimerosal & dental amalgams. CLOSE WINDOW." www.autismmedia.org/haley5w.html
57. Boyd Haley quotes
“Boyd Haley quotes.Boyd Haley, author, authors, writer, writers, people, famous people.” thinkexist.com/quotes/boyd_haley/
58. Boyd Haley
“Boyd Haley: Boyd E. Haley, PhD (b. September 22, 1940, Greensburg, Indiana), is a professor at the University of Kentucky, where he has been the chairman of ...” www.spock.com/Boyd-Haley
59. Autism Society of the Bluegrass - Jan 21 Dr. Boyd Haley presentation
“Mambo - the dynamic portal engine and content management system.” asbg.org/content/view/56/38/
60. USAAA Newsletter
“Dr. Boyd Haley: Vaccines are not the only exposure to mercury or thimerosal. Remember merthiolate, or methyl mercury from fish? In the 1970s and early 1980s ...” www.usautism.org/USAAA_Newsletter/usaanewsletter_template_102506.html
61. Holistic Dentistry - Biological Dentist - Mercury Free Dentist ...
“24 Jul 2005 ... And Boyd Haley has devoted much of his professional career to exploring and describing the toxicity of mercury. ...” www.talkinternational.com/news/news-amalgam-7-24-2005.htm
62. BEFORE THE IOWA WORKERS COMPENSATION COMMISSIONER
“This is a proceeding in arbitration brought by Boyd Haley against Dave ... consists of testimony from Boyd Haley and jointly offered exhibits 1-6 and 8. ...” www2.iwd.state.ia.us/dwc/wcedecisions.nsf/Attachments/Doc/Doc1D.04D796A524A4792DD862571620068E100/$FILE/BOYD% 20V.%20DAVE%20MALPIN%20MOTORS%20-%20Date%-%202010-30-2000%20-%20File%20Number%-%201212609D%201.0.p df
63. NashvilleG: Boyd Haley
“Boyd Haley. First Name: Last Name: State: (optional). Select a state... Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware ... www.nashvilleg.com/identity/boyd-haley.xhtml
64. Medical Health Support :: View topic - Peter (ratty) Bowditch LIES...
65. sci.med: Boyd Haley's Response to Article (Mercury Fillings: They ...

"Blog Catalog is the premiere social blog directory on the internet. Search, Browse, Rate and Review thousands of blog sites."

68. Boyd Haley on Mercury toxicity & Autism: Part 1 - Video Search

- leechvideo.com is the best video search engine which also offers Dr. Boyd Haley on Mercury toxicity & Autism: Part 1 video clips and video download link. -

69. Health News

"16 Jun 2005 ... Dr. Boyd Haley is a professor and chair of the chemistry department at the University of Kentucky. In this interview, Dr. Haley discusses ..."

70. Stan Kurtz hosts the radio program "From the Childrens Corner"

"11 Sep 2006 ... During my 9.11.06 broadcast interview with Dr. Boyd Haley of University we spoke about Porphyrin testing to determine how much mercury children are getting from ..."

71. Dr. Boyd Haley on Mercury toxicity & Autism: Part 1 - Video Search

- leechvideo.com is the best video search engine which also offers Dr. Boyd Haley on Mercury toxicity & Autism: Part 1 video clips and video download link. -

72. Peter (ratty) Bowditch LIES about Dr Boyd Haley Repeatedly.

"Peter (ratty) Bowditch LIES about Dr Boyd Haley Repeatedly."

73. ISM Affiliate Officers Directory

"Direct Recruit Mail Designation Nancy Boyd Haley napmblo@roadrunner.com. Board Advisor James Roberto jroberto@gdtna.com, Executive Officer/Secretary Jiglu:

74. Zeolites Health - Natural Detox: All Natural Zeolite Cellular...

"What we're going to is take a few minutes to address an assertion that was made by Dr. Boyd Haley, that Natural Cellular Defense does not chelate mercury. ..."

75. Living With Autism: Dr Boyd Haley on Mercury toxicity & Autism

"Video: Dr. Boyd Haley is a professor and chair of the chemistry department at the University of Kentucky. In this interview,...."

76. RecoveredKids: Message Boyd Haley. Comments regarding EDTA for ...

"RecoveredKids: This is list of parents recovering or on the road to recovery from autism. Others, however, are welcome to join.* groups.yahoo.com/group/RecoveredKids/message/16093

80. Stan Kurtz - From The Children's Corner - Research, Reform and ...

"Dr. Boyd Haley is a Professor and two-term Chairman of the Department of Chemistry at University of Kentucky. He is an author of 122 published peer-reviewed papers ..."

81. ScienceStorm - Boyd Haley - Research Grants on ScienceStorm

"Principal Investigator: Boyd Haley Research Grants. Organization: University of Kentucky Research Foundation. Acquisition of a New 400 MHz NMR Spectrometer ..."

82. Presentation by Boyd Haley, Ph.D.

"Boyd Haley, Ph.D... Professor and Chair of the Department of Chemistry, University of Kentucky. Presented to: The Committee on Government Reform: Dental ..."

83. Another Piece To The Puzzle

"[end of quote, emphasis added: Boyd Haley, refer to: Boyd Haley testimony and May 23, 2001 letter to Dan Burton, on Committee Government Reform] ...

84. Boyd Haley On Mercury Detox | Detoxify You System

"Your trusted online resource for Boyd Haley On Mercury Detox."

85. Display Products

"Boyd Haley, PhD. A Review of Mercury and Alzheimer's Disease ... Boyd Haley PhD. Review of Mercury and Alzheimer's Disease, Murray Viny, DMD ... laomt.com/cart/products.asp?cat=27

86. Uninformed Consent - The Right to Know...

"This followed an interview with Dr. Boyd Haley, Chair of Dept of Chemistry, U of Kentucky. (Download on broadband is approx. 5 minutes. ...) www.universityofhealth.net/radio_talkShows.html
"Boyd Haley, PhD, former Chairman of the Department of Chemistry at the University of Kentucky from 1996-2005, has now chosen to devote additional time to ..." www.filariane.org/anglais/index.html

89. QTY
"Dr. Boyd Haley- Root canal toxicity as a focus (2:03). #6 Dr. Dan Bellin- Thermograph, focal medical tool. Dr. Kuhnau- Basic errors in Orthodox Medicine ..." www.iabdm.org/docs/DVDorderformforallIABDMconferences.doc

90. www.healthiertalk.com :: View topic - scar tissue
"10 Apr 2007 ... low level toxicities on human health that has been, and remains, our greatest failing as intelligent beings. Dr. Boyd Haley ...” www.healthiertalk.com/viewtopic.php?t=6307

91. Thimerosal thoughts: Anne Dachel and Dr Boyd Haley on Channel 13 ... "26 Sep 2007 ... Dr. Boyd Haley, a leading University of Kentucky Researcher on the topic says thimerosal, a vaccine preservative with nearly 50 percent ..." thimerosalthoughts-bb.blogspot.com/2007/09/anne-dachel-on-channel-13-on-how.html

92. ZenWorks Productions
"Won't want to miss: collection of Rashid Buttar, both of Boyd Haley's, Andrew Wakefield, Jeff Bradstreet, David Kirby ..." www.zenworkproductions.com/store_ao05.html

93. Vaccinations - Vaccines, Statistics & The Media
"I talked to both Boyd Haley and Rashid Buttar this week, two of our greatest mercury warriors and there is some good news. Dr. Haley is optimistic that we ..." www.thenhf.com/vaccinations_59.htm