

HAIR ELEMENTS



PATIENT: Number 227
SEX: Male
AGE: 43
LOCATION: SE London, UK

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	9.1	< 7.0		
Antimony	0.014	< 0.066		
Arsenic	0.066	< 0.080		
Beryllium	< 0.01	< 0.020		
Bismuth	< 0.002	< 2.0		
Cadmium	0.028	< 0.15		
Lead	0.56	< 2.0		
Mercury	0.16	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.003	< 0.060		
Nickel	0.14	< 0.40		
Silver	0.06	< 0.12		
Tin	0.09	< 0.30		
Titanium	0.94	< 1.0		
Total Toxic Representation				

ESSENTIAL AND OTHER ELEMENTS							
ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE				
			2.5 th	16 th	50 th	84 th	97.5 th
Calcium	426	200- 750					
Magnesium	35	25- 75					
Sodium	150	12- 90					
Potassium	80	9- 40					
Copper	34	10- 28					
Zinc	240	130- 200					
Manganese	0.11	0.15- 0.65					
Chromium	0.46	0.20- 0.40					
Vanadium	0.036	0.018- 0.065					
Molybdenum	0.024	0.025- 0.064					
Boron	1.7	0.40- 3.0					
Iodine	0.16	0.25- 1.3					
Lithium	0.014	0.007- 0.023					
Phosphorus	285	160- 250					
Selenium	0.68	0.95- 1.7					
Strontium	3.2	0.30- 3.5					
Sulfur	52800	44500- 52000					
Barium	0.15	0.16- 1.6					
Cobalt	0.004	0.013- 0.035					
Iron	10	5.4- 13					
Germanium	0.028	0.045- 0.065					
Rubidium	0.069	0.011- 0.12					
Zirconium	0.049	0.020- 0.44					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected: 11/13/2008	Sample Size: 0.197 g			Ca/Mg	12.2	4- 30
Date Received: 11/17/2008	Sample Type: Head			Ca/P	1.49	0.8- 8
Date Completed: 11/19/2008	Hair Color: Brown			Na/K	1.88	0.5- 10
	Treatment:			Zn/Cu	7.06	4- 20
Methodology: ICP-MS	Shampoo: Head And Shoulder			Zn/Cd	> 999	> 800

Personal Information

Male; 43 year old; married; father of three boys; university educated with higher degree in computer science; non smoker; physically fit; currently work part time from home.

I have both of Andy Cutler's books.

The current symptoms and history sections are written from the position that many of my symptoms are caused by electromagnetic fields or microwaves. This is based on my experience of what causes my symptoms and what I should avoid to prevent symptoms occurring. In October 2008 I became aware of Andy Cutler's books and the symptom descriptions for Amalgam Illness and these overlap with many of the symptoms I associate with Electrosensitivity. Probably more importantly there were a number of symptoms that I hadn't considered significant which also fall into the amalgam illness symptom set. In addition, I've recently become aware of a number of research papers that document that exposure to computer monitors and mobile phones increase the rate of mercury release from amalgam fillings.

1) Current Symptoms

I have Electrosensitivity and react to both electrical and microwave sources. Electrical sources (Fluorescent lights, LCD computer screens, transformers, e.g. for DC halogen lights, dimmer switches) initially cause a sunburn feeling on the skin of my face but there is no change in the appearance of the skin. With continued exposure I become very physically and mentally fatigued and typically have to go to bed. I'll typically feel drained the following day. If I have a number of days of heavy exposure I can start to react to many electrical appliances around the house, egg fridge and I can react to incandescent lighting. In addition to my physical symptoms I become frustrated and bad tempered. Microwave sources (mobile phones and WiFi) cause headaches/short term memory problems/difficulty with concentrating. Initially I have difficulty finding words and may substitute word inappropriately, with further exposure I will have difficulty thinking enough to be involved in a conversation.

Some of these symptoms occur quite quickly, e.g. skin burning, but others can take a while to come on, egg headaches. Also the speed of symptom onset and the severity of reaction seem to depend on the previous level of exposure. It feels like avoiding exposure for long periods (weeks - months) can build up a buffer but renewed high exposure levels lead to a reduction in the buffer and reversion to high sensitivity.

There is a significant symptom that is becoming chronic but there isn't an obvious period of exposure causing it: I'm finding it progressively more difficult to perform multiday projects that require attention to detail and problem solving. My capability to tackle these sorts of tasks is only available infrequently, maybe a few days a month. I have a near permanent fuzzy feeling in my head that blocks thinking.

In addition to the symptoms I directly associated with electrosensitivity a number of other changes had occurred that I put down to aging, but on reading symptom list in AI I think they are worth mentioning:

* I typically wake once or twice a night and I typically pass urine at least once.

* I am not able to get back to sleep and my thoughts will repeatedly go over an insignificant point. I have a coping strategy for this, a radio with a timer, if I listen to the radio my mind can disengage and I go back to sleep.

* when I'm under stress or tired one or both of my lower eye lids will twitch.

* my handwriting has got progressively worse and nearly all the detail has gone from my signature

- * I have one functioning kidney, this was discovered in 1983.
- * I get very stressed if I try to do things that require looking at small details, for example model building.
- * the skin on my toes is thickening.
- * I seem to have a problem with temperature control, I've only taken my waking temperature for 6 days and the average is 36.16 C, 97.1 F. In addition, in a stressful situation I become hot very quickly, in a few seconds and start sweating. This has only happened in the last 2-3 years. I also get night sweats but I have had these for a long time, 15+ years.

History

The following history is derived from a record I have maintained since 2004. It is written from the point of view of a person affected by electrical and microwave sources.

I was a heavy computer user (8-12 hours per day, 5-6 days a week) for 14 years 1989-2003. During this time I gained a PhD in Computer Science, carried out R/D for a government agency and worked for 3 IT consultancies two of which I founded. In Jan 04 I resigned from my company because of Electrical Hypersensitivity symptoms, i.e. poor concentration/focus, poor short term memory, headaches. Since 2004 I have adapted and reduced my use of computers but my sensitivity continues to increase and the symptoms are more debilitating.

1997: My first experience with ES symptoms was while working very near, i.e. within 100m, of a satellite ground station. I worked in that job for 11 months and had concentration and short term memory problems for most of that time. The most unsettling part was being unable to reliably remember the names of people I shared a room with. Subsequently I worked as a IT consultant which involved lots of mobile phone usage, but this didn't have a noticeable impact at the time.

2001: I got involved with wireless networking (WiFi) and installed base stations in my home and office. So for the next 18 months I had near continuous exposure to wireless networking, moderate exposure to mobile phones use, laptop and computer use and dect phones.

After approximately 12 months of WiFi exposure I and close colleagues noticed a gradual reduction in my work capability. During the following 6 months the situation became progressively worse. Also during this time I was commuting weekly by plane for 2 hours. I started to notice was that I could tell when the WiFi network was on because of sensation in the skin of my face, a pressure in the cavity behind my nose. So that was the point when I switched off all of the WiFi equipment. This resulted in an improvement but I was still having problems. I also tried using a Qlink pendant following a recommendation but discontinued using it when it didn't have an appreciable effect.

2003: I was able to work at home on a software product, in a semi rural location, but my issues with concentration/motivation/memory still gave me some problems but the symptoms were not as bad as before. We held weekly meeting at a building in London where there was a wireless network installed, each of these days was a complete write-off as my symptoms were significantly worse, in particular poor concentration/memory.

August 03: I was looking hard for other contributing causes and came across various references to mobile phone issues, in particular the Lund work on mobile phone emissions causing the breakdown in the blood/brain membrane and how this related to a possible early onset of Alzheimers. The symptoms and concerns about Alzheimers made me depressed and I was very concerned how things would progress. At this point I changed my mobile phone use, only carrying it switched off for emergency use. I also started to take concentrated fish oil that helped with some of the symptoms. On a few occasions when my wife brought a switched on mobile phone into the house I was able to tell it was on. The physical symptoms were similar to the wireless network - I felt uneasy and I could feel a slight prickling on the inside of my nose.

Jan 04: I resigned from my job/directorship of a successful IT consultancy because I had to return to on site consultancy work with associated mobile phone and WiFi exposure and I couldn't face how ill I would be. Following this I went on a extended trip (6 weeks) with the intention of possibly emigrating. The day following the flight I had two episodes of racing heartbeat, this is the only time I have experienced this symptom. While away most of the symptoms cleared but on my return the symptoms reappeared. The symptoms also seemed to be getting worse with headaches after 30 minutes of computer use and also a sun-burn feeling on the face while using LCD screens. The screen setup I had was 2 19inch lcd monitors side-by-side and a laptop with a 12inch lcd screen, these were typically all on at the same time.

March 2004: I had a medical and the only thing noted as unusual was my resting heart rate of 52 bpm.

April 2004: I rented some microwave and EMF meters. I found 2 additional sources of microwave radiation, dect phones and some of the sensors of a home alarm system. The alarm sensors were in areas I didn't spend much time in but when I sat for 2-3 minutes 4-5 m from them I got the same feeling in my face as I got from WiFi and mobile phone exposure. The dect phones were removed and the sensors were disabled. On the EMF front the major sources were lcd screens, desktop computer, laptop when charging and external keyboard/mice. Using a laptop on its battery with an external keyboard/mouse reduced the symptoms. The external keyboard/mouse was later replaced with a keyboard which communicated with the computer by an Infrared signal. This enabled me to sit over 2 metres away from computers/UPS/network cables. The keyboard is battery powered. I also bought a data projector and used it as a surrogate display screen, it projected an image onto a surface 4 metres away from me. I continued to actively avoid EMF and RF sources.

Jan 2002-Aug 2004: the symptoms I experienced were:
pressure on face and sensations behind the nose during WiFi/mobile phone exposure with subsequent concentration/short term memory problems and general difficulty thinking
headaches from sitting within a metre of network cables and using unearthed keyboards
feeling of sunburn from screen lcd exposure
onset of flu symptoms which hasn't progressed to a cold or flu
disrupted sleep

depression

Dec 2005 - March 2006: I still had intermittent exposure to LCD screens as other family members use laptops. My sensitivity to LCD screens has increased, 10 minutes facial exposure results in burning sensation, particularly in my cheeks. No redness or tanning results.

In Dec 2005 I replaced an improvised, plasterboard, projector screen with proper projector screen which has higher gain, i.e. absorbs less light/reflects more. In the 3 months following the screen change I noticed a burning sensation starting to develop in my face. i.e. initially I could work 5 days, 6-8 hours a day and notice a slight burning at the end of the week. This got progressively worse until in Feb 2006 after 2 days rest it takes only 2 hours of use until the burning sensation is uncomfortable on my cheeks. I experimented with covering part of my face with fabric, different sunscreens, and using UV filters on the projector light. Some of these had temporary effects but the condition continued to deteriorate. Over time I started to suspect that the projector was causing the problem. A number of sources of information on EHS state that metal halide bulbs (used in data projectors) emit high electrical fields and cause symptoms.

March 2006: I was referred to a Photosensitivity clinic run by Professor Hawk at Guys hospital, London. He has seen 2-3 dozen people with similar skin symptoms from exposure to office lights and computer screens. His diagnosis is Seborrheic Dermatitis exacerbated by computer exposure, I have a mild dandruff but no other symptoms. He prescribed a shampoo, soap substitute, bath wash and 3 creams of varying toxicity. He noted that this treatment cures 60-70% of patients but doesn't work for the remainder. Professor Hawk didn't appear to have come across the term screen dermatitis and appeared unaware that a fluorescent light is used to backlight an LCD monitor which cause high electrical emissions.

Dietary supplements: Zinc - supports the immune system, MSM

April 2006: As the symptoms disappear when I avoid fluorescent or metal halide light I replaced the data projector with a LED powered projector. This doesn't emit UV,IR and the skin burning is much reduced.

June 2006: I have started to experience skin burning symptoms to the various household appliances, fridge/television and also to the car. The face burning symptom is strong enough to be distracting after half an hour.

December 2006: I have periods when I react to incandescent lighting. The longest period when I have been unable to use incandescent lighting is about 10 days.

Jan 2007 - August 2008: I still react to fluorescent lighting etc, and microwave sources but provided that I avoid EM and microwave sources my obvious symptoms are fairly minimal also I seem to have more reserves so that I don't react as quickly. While this is an improvement I am having long periods (multiple week, extending to multiple months) when I find it very difficult to concentrate and work through complicated problems. I have spent multiple weeks trying to decide between complex alternatives.

July 2002-August 2008: I lived in a house with insufficient heating and mild damp/mold problems. For much of this time there was also an electrical fault with the neutral connection to the building, consequently power was

leaking to earth through the fabric of the building.

August 2008 - Dec 2008: moved house into modern building and realised that I feel the cold more than my wife. Bought an accurate thermometer and started to measure waking temperature, it is low at 97.1F.

2) Dental History

This is a bit sketchy as I haven't been able to find the records.

I've got a small jaw and when I was a child my dentist removed teeth to make space for the adult teeth, I think a number of adult teeth were also removed, my current record shows no wisdom teeth. I had 3-4 fillings at 10-12 and some remedial work on these during my teens and a dentist filled another 6 in my last year as a student, 1987. Since then I have had a number of replacement fillings but have always tried to defer unnecessary dental work. I've never had a brace or any root canal work.

3) Dental Work in place

I have 10 filled teeth, 4 of them on 3 or more surfaces.

I've found a mercury free dentist and had the preliminary consultation, and I know the extent/cost of the remedial work. I wanted to get the hair test results before proceeding.

4) Mother's dental work

My mother had 2-3 fillings when I was born.

5) Vaccines

I've had all the standard childhood vaccines for the UK in the 1960's, plus BCG, plus tetanus and at least one booster. I've not had flu vaccine or any travel vaccines.

6) Supplements

Not taking any supplements at time of hair test and for the previous 6 months.

7) Additional Info

8) Location

Born + brought up West Wales, lived in Leeds for 12 years and London/South East for 8 years.