

## Best Cases In Biological Medicine Series #12

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*Biological medicine works. The purpose of this series is to present illustrative cases from different practitioners in order to demonstrate the highly effective principles and practice of Biologic Medicine. If you have cases that have educational value for others using Biological Medicine in practice, please email them in Word format to Dr. David I. Minkoff M.D. at [drminkoff@bodyhealth.com](mailto:drminkoff@bodyhealth.com). They will be presented each month as part of the Best Cases in Biological Medicine series.*

The case presented in this issue comes from Mary Cordaro. Mary is an Environmental Consultant and Certified Bau-Biologist in Los Angeles. My wife and I originally met Mary when seeking her services to help us improve the environment in our home and purchase a new bed that was environmentally safe. As you may know, there are laws in most states that require flame retardants in all mattresses. These flame retardants are quite toxic and are absorbed into the body. While trying to wade through the confusion of what kind of bed to get, without flame retardants, without springs, and made with natural materials, Mary proved to be the most knowledgeable in the area. When we went to visit her office/home/showroom we were amazed at how different we felt in a “safe environment” home. The electronic noise was not there, the air smelled very fresh, and we were impressed that this could be done in the middle of the San Fernando Valley of smog in LA. I think that this information and technology is quite missing from the practices of many docs who work with “sensitive” patients, and so I asked Mary to put together a case that would at least open up everyone’s thinking in this area. Mary is a real expert in this area and can be contacted through her web site at [www.H3environmental.com](http://www.H3environmental.com).

### *Residential Environmental Case Study*

*By Mary Cordaro, Environmental Consultant and Certified Bau-Biologist*

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Ms. T, a Southern California alternative health practitioner in her 40’s, called me to inspect her 1940’s home and consult on indoor air quality. I interviewed her in her home, and performed a walkthrough, as well as some preliminary environmental testing. At that time, Ms. T worked at home during the day. Historically, she did not have severe sensitivities, except to some medications, high levels of formaldehyde used in college science classes, or if she entered moldy buildings, but she would recover quickly from lung weakness or temporary cognitive problems if exposed. Otherwise, until a recent series of exposure events, she had functioned normally, and had not been previously limited in her daily activities by any particular environmental factors. When she called me however, for several weeks she had been experiencing wheezing, a burning liver sensation, headaches, sleep disorders, shortness of temper, and fatigue. These relatively new symptoms would become progressively worse throughout each day.

Throughout the course of the interview, the client described the following recent events.

Several weeks prior, she had hired a conventional HVAC company (heating, ventilation and air conditioning), to add air-conditioning to her central forced air-heating system. The HVAC company also installed a new “return air vent” and duct to the area between her kitchen and treatment room. She did not recall if any other new ducting had also been added. Immediately after the installation and upon using the new air conditioning, she developed the acute health symptoms listed above. Someone she knew recommended a local environmental company to assess her indoor air quality and solve the problems. After their assessment, she hired the recommended company to do the following: Remove and replace all the ducting, remove all fiberglass insulation from the HVAC unit and the attic, HEPA vacuum the attic and re-insulate with alternative “cotton” insulation”, clean the HVAC unit and

add filtration, remove wall to wall carpeting, and perform an overall environmental cleaning of the home.

During the work performed by the environmental company, she moved out of her home.

After completion of the work, she moved back in, and became immediately sick again with all the same acute symptoms. Her symptoms persisted whether or not the HVAC system was turned on.

After testing for electromagnetic fields to rule out EMF exposure, I determined that mold might be present, due to detectable odors in certain areas of the home, and because of past moisture intrusion events she described to me. For example, over the prior 2-3 years, due to poor drainage and grading, and an improperly installed threshold, flooding during rains had reoccurred over time in the treatment room, water intrusion from irrigation and rain had reoccurred at the exterior of the home and under the entry and entry closet, and past flooding from plumbing failures had occurred off the kitchen area. To verify these initial findings and come up with solutions, I decided to call in a team of specialists to do further testing and write remediation plans. The chemical specialist on the team was particularly concerned that her symptoms might be connected with chemical poisoning from pesticides, particularly the sleeplessness, liver discomfort, and headaches. All of us as a team, consisting of experts with backgrounds in chemicals, mold, HVAC and Building Science conducted testing, and consulted with remediation specialists to uncover and solve the following:

- The attic contained high levels of chlordane, a toxic pesticide banned in the U.S. in 1988. A previous owner or pest company had decided to “broadcast” chlordane through the attic, which is an unusual application, as chlordane is usually found in crawl spaces in climates where termites thrive. Because of the home’s age and the sometimes almost casual use of highly toxic pesticides in the past, this seemed plausible.
- The crawl space and soil several feet out from the foundation walls also contained high levels of chlordane. As was typical prior to its banning, chlordane was used extensively for preventive termite control, and was applied in trenches along both the inside and outside of the foundation walls when the house was built. High levels of chlordane had also migrated out into her front and side yards.
- Mold testing confirmed high levels in the entry and entry closet, the area between her kitchen and treatment room, and the treatment room.
- The new return air vent was installed close to the moldy area between her treatment room and kitchen. As a result, whenever she turned on her HVAC, mycotoxins (chemicals from mold) and possibly mold spores were pulled into the return vent and circulated throughout the home.

- The ducting in the attic was installed as “leaky”. This means that the entire “return side” of the HVAC system (that draws air into the system), through typical penetrations at all the joints and connections, was pulling chlordane from the attic through those penetrations into the ducting and HVAC unit, and thus circulating it throughout the house. In addition, those typically occurring leaks that were present throughout the system, both on the return ducting, the supply ducting, and all the other connections, resulted in “negative pressurization” throughout the home. When a home becomes negatively pressurized, the interior of the home becomes like the inside of a vacuum cleaner, and “sucks” air from the attic, crawl space and wall cavities, through the home’s many holes and penetrations leading from the interior to those contaminated spaces. Air from negative pressure bypasses filters in the HVAC unit. As a result, whenever Ms. T. turned on her forced air system, her home became further contaminated with chlordane from the crawl space and attic, and mold from wall cavities, flooring and crawl areas in several areas of the home.

Our entire team agreed that the client should move out of the home immediately while we continued our assessments. After extensive environmental investigations and testing, as well as medical diagnostic work ups and alternative medical treatments, the client decided that her fatigue and extreme sensitivities to chemicals and mold would require a complex environmental remediation strategy that she would be unable to implement and manage. She decided to sell the house. However, to make the house safer for the next occupant, she hired a chemical abatement company to excavate soil from the crawl space, and several feet out from the foundation. The abatement company also encapsulated the entire crawl space. They removed the new cotton insulation from the attic, decontaminated and encapsulated all the attic surfaces with a special sealer, decontaminated the HVAC unit, and decontaminated the interior of the house, by deep cleaning using a special protocol for chemicals. An HVAC company removed and replaced all the ducting. She then sold the house and disclosed the entire environmental history, but did not have the mold removed. After selling the house, she focused on a long, intense treatment program for detoxification using several alternative modalities. Until she purchased a healthier home, she lived with friends whose homes did not contain new carpets or other new materials, pesticides, or toxic cleaning products. After 1 year of intense treatments and no further environmental exposures, she improved, but as yet still has lung weakness, which can sometimes lead to a few bronchial infections per year. After a few years, she reports that she continues to react to mold, toxic cleaning products and new building materials, but in general has more stamina, reports being 65% percent

less reactive, can handle higher thresholds of contaminant exposure, and her daily life is much less restricted. She has learned to stay alert to and immediately manage any moisture intrusion events, and uses non-toxic materials and products in her home.

Comments: Because she was unclear on the extent of the work when the new air conditioner was first installed, it is not entirely evident why this client did not react sooner to the chemical and mold contamination in her home, especially since she had used her forced air-heating system for years before. It is possible that prior to the new air conditioning installation, perhaps the forced air system was not as leaky, and thus contamination caused by negative pressurization and a leaky HVAC return was perhaps less severe, and happening at a much slower rate. In addition, until the new return air vent was added, perhaps the mold did not circulate throughout the house to the same degree. Also, because she was already on a personal, comprehensive alternative medical path, she was perhaps able to keep her immune system at a functioning level, until the exposures increased too much for her body to handle. In the meantime, the mold levels were slowly increasing over time. By the time the house was thoroughly diagnosed, her mold and chemical sensitivities, (caused by both the mold and pesticide exposures), were so severe that the even small levels of chlordane that might have been “walked in” from her yard into her home may have dangerously triggered her.

Although her decision to sell the house, relocate and heal may seem dramatic, in some cases, clients are better off abandoning a toxic home. It is possible that complete mold and chemical clean up may have been successfully achieved, but the cost to the client, both emotionally and financially can take its toll. Each case must be carefully and individually considered. In this case, the client reports that she is relieved that the situation quickly

became acute, so that she was forced to move out sooner, rather than being slowly poisoned over time, and possibly not recovering at all or very little. As an alternative health practitioner, she says she is well aware of the more typical scenario, where a patient is treated unsuccessfully, year after year, jumping from modality to modality and practitioner to practitioner, because most often the home is not routinely checked as a possible culprit.

I have worked on many cases throughout the years that involved successful remediation, but I have also worked on many that required clients to sell their homes. The most important factor is the health of the client. After a serious acute exposure, many clients, until they can heal deeply enough, can be easily triggered by minute amounts of the same or similar contaminants (because they may become cross sensitized), so eliminating exposures completely for an appropriate period of time is critical. After healing, a client should then be able to tolerate small exposures more successfully. I would also like to point out the complex interrelationship among the systems of the house, the type of construction, contaminants and “pollutant pathways”. Just like the body, the interrelationships must be studied carefully to fully and accurately assess the health of the home before jumping to cause and solutions.

Biological Medicine is the science of working with the laws of nature and life to heal the body. When these principles are followed, and the patient is compliant, and providing we are not too late, we can be successful.

The next issue will present a case of protein malnutrition with gastroscsis. 🌸

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*Please send me your illustrative Biological Medicine cases. I would love to share them with others.*

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