Doing The Least To Save Your Life

Why Alternative Medicine Is An Offensive Waste of Time

David Federlein

I am going to start by telling you a lot of things about my health you never needed to know. You see, if it were not for science I would be dead. Let's start with the major episodes in my life:

1975 - Pyloric Stenosis.

2004 - Solitary Plasmacytoma of Bone.

Both of these conditions were serious enough to warrant surgery. I'll start with what I have been told by my family about the first episode. From http://kidshealth.org/parent/medical/digestive/pyloric stenosis.html :

Pyloric stenosis is a narrowing of the pylorus, the lower part of the stomach through which food and other stomach contents pass to enter the small intestine. When an infant has pyloric stenosis, the muscles in the pylorus have become enlarged to the point where food is prevented from emptying out of the stomach.

This was solved by surgery a few weeks after birth. I then was in an oxygen tent for a few more weeks due to developing pneumonia in recovery from surgery. This was a serious, and very much life threatening condition that was successfully treated by modern medicine.

Then in late 2003 I began to have back pain. I went to physical therapy under the assumption that this was a herniated disk. The pain in my back became very serious. There were many days I could not get out of bed. Finally, when I began to lose feeling and range of motion below the waist, I went to get an MRI. The exact words of the MRI tech after my scan were "I don't know how the hell you're standing, let alone walking around." Walking around is a kind way to describe what I was doing. I was hobbling in intense pain, with serious difficulty in keeping my balance.



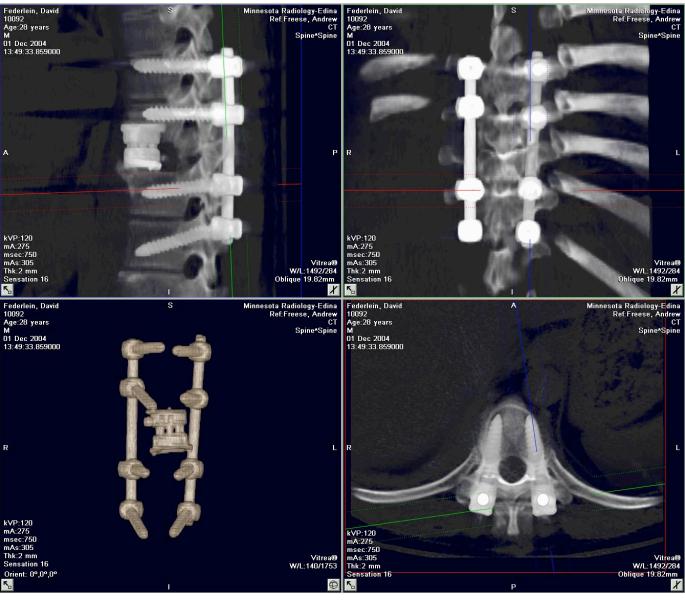
A tumor had destroyed the 9th thoracic vertebrae almost completely. On the left, you will see an MRI scan, and a CT scan of the damage.

Can you spot where the problem is? All things considered, I should have been paralyzed. You can see where the order of things in the spine goes vertebrae, disk, compressed tumor causing severe compression of spinal cord, disk, vertebrae. It was very hard to look at these scans and think I would ever walk again, and I was permanently an inch or two shorter. How about that?



Now I didn't have medical insurance at the time. I had to quit my temp job, and basically earn nothing to qualify for state medical aid that would pay for the operation to fix this. Thankfully, Minnesota has a very good support system in place for this, and on November 8, 2004 I underwent an 11 hour operation to remove as much of the tumor as possible, take bone from my ribs and pelvis to use as a bone graft to restore the height in my spine again, and then to surround that graft in a titanium cage, along with fusing the surrounding vertebrae with titanium screws and rods.

Below is a CT scan of the result of that surgery.



I spent the next few months learning to walk again. I underwent 24 sessions of radiation therapy and several bone marrow biopsies, MRI scans, CT scans, bone surveys (which are essentially an x-ray of every part of you from several angles), and blood tests. You see, Solitary Plasmacytoma of Bone has a 50% chance of progressing to Multiple Myeloma in 10 years. Once that progression has happened, 37% of those diagnosed make it past 5 years. Currently, there is a second tumor forming in my right arm, but with the help of my hard working doctors, it was found early and will be treated.

Because of all the hard work of my nuerosurgeon, oncologist, nurses, and me I was walking again by February of 2005 without a cane and had returned to work at a new job. A job that now pays for medical insurance.

Without the scientific method none of my treatments would have been available to save me. 100 years ago I would have died as an infant, and 50 years ago I would have been paralyzed - if not dead. What I mean specifically is that without properly blinded studies, peer reviewed publication, the removal of emotion when gathering knowledge (removing confirmation bias and cherry picking of evidence), and the self correcting nature of scientific advancement there would have been absolutely no chance for me.

You see, medical researchers come up with a hypothesis based on observed phenomenon. They then devise a test in which they cannot influence the end result, and then publish their findings for their peers to critique. If they did something wrong, it is caught, and more testing is done. In fact, more testing is done anyway. This is called Replication. That means if you have devised a study showing how much more effectively and quickly your pet rabbit learns to foil bungling hunters by watching cartoons, then I will also replicate that test to ensure the results are genuine. If they're not, we're going to have conflicting outcomes, and more and more study will happen until we get to the bottom of the true nature of how rabbits foil hunters.

Let me boil it down: science sticks to the facts in a way that negates whether those testing have an opinion about their studies, and it ensures that if they do botch it it will be caught and corrected. This is the reality of how science works. It is also the foundation to every single one of the modern conveniences you and I take for granted every day. Cars, refrigerators, televisions, telephones, cell phones, computers, antibiotics, vaccines, satellites, airplanes, indoor plumbing, skyscrapers, shoe insoles, birth control, iPods, compact discs, DVDs...

The list can go on for pages and pages. Science is leading us to more comfortable, productive, healthy lives and careers. It allows us to do things that would seem to be magic to someone from 200 years ago.

Recently, an acquaintance responded to my chiding of the belief in ghosts and those that claim to talk to the dead "Ah the faith you all place in science. It doesn't explain everything you know." I simply responded to such an absurd statement by pointing out that science had fixed both my and her spines. She has rods and screws in her spine

also, correcting a very severe case of scoliosis. She walks upright, has a straight spine and leads a healthy happy life because of science, and yet her attack on science was that it does not know everything.

Here's a news flash: science admits that. It continues to progress precisely because of that. You see, explaining "everything" isn't the goal. The goal is to continue to learn all we can on observed phenomenon with empirical data gathered from blinded study published openly for peer review and based on testable hypothesis.

Quite frankly to live your life in debt to science and then throw insults at science out of misunderstanding it is such an insult I don't know where to begin. Which leads me to the point of this paper.

Alternative medicine and therapies do not follow the scientific method. They all invariably have a supernatural explanation for their effectiveness, and do not pass scientific testing with any better results than placebo. If they did, they are no longer "alternative" and every drug company would clamor to release their version of it.

I have this to say to all of you alternative medicine proponents out there:

Yeah, I heard this crap about "Big Pharma" and the conspiracy to keep the public sick and reap the benefits of "just treating the illness." There's only one way to explain the way this looney idea perpetuates: mental retardation. I would have picked simple ignorance, but even those not heavily educated in science can use common sense and understand that massive conspiracy theories are asinine. For the love of pete if the President of the United States can't keep a blow job secret, what the hell makes you think several major corporations employing thousands and several branches of the government employing another population of thousands if not tens of thousands could keep it under wraps they secretly want us all sick? Are you really such a half-wit, mouth-breathing moron as to believe that bullshit? Really? No seriously, really?

If you are, please discard this paper and continue your studies in Dr. Suess. The real world is too complicated for you and I wish you well trying to navigate through it. I will heartily cheer and laugh at the news story about your death by coffee maker.

Look, auto companies make cars that continually are safer and more eco-friendly. Yes it's slow going, but you still drive a car don't you? The Ford Pinto is not evidence of a vast conspiracy of car manufacturers is it? Have you come to the conclusion that all car companies actively conspire for us to have horrific accidents and destroy all of the earth by suppressing alternative automobiles? If a better automobile comes along, do you not think the auto industry would stumble over itself trying to get that new car out there? The bottom line for corporations is money. A cancer cure would be worth billions. Cures for any serious disease are worth billions not just in sales, but in investors purchasing stock, in research grants for applications of this new discovery, and a whole host of other reasons. To think the big pharma companies would forego that in favor of pissant sales on current therapies is to delve into madness.

So we've gotten the conspiracy to make the world sick out of the way, what else is there? Well there's pseudo-science. This is a little more devious than the drooling rants of a raving conspiracy lunatic. Pseudo-science is basically dressing bullshit up as science and selling it that way. Psuedo-science talks about quantum mechanics without even understanding what is quantum mechanics. You see, according to these guys, quantum mechanics allows a quartz crystal to solve everything from flatulence to cancer, or cure your arthritis pain. Quantum mechanics can enlarge your penis! It can even make your water more wet! HALLELUJAH!

Ok here's the secret to pseudo-science. At the core, it has something working in a way that cannot be possible to known science. This is not to say that a new theory of something or other couldn't turn science on it's head, that certainly could happen (and is welcome to in science.) This is to say that an aluminum tube aligning the flow of molecules in your gas tank and improving your gas mileage is bullshit because despite the lengthy explanations of quantum mechanics to support this, you remember your 4th grade science classes explaining molecules in liquids and know somewhere in the back of your head what this company is telling you about the inset fuel stabilizer is complete horseshit. Most of the people that fall for the scam, however, can't verbalize that reservation effectively enough and don't call the product for what it is - something plucked solely from the ass of a scam artist.

Psuedo-science will have tons of statements like "Recent studies show..." or "Scientists agree..." but they sure as hell won't tell you what studies or which scientists. In real science, however, direct citations of those studies and scientists would be forthcoming as a matter of intellectual honesty. The next salesperson of questionable medical treatment or device that says "experts agree" or "studies show" that doesn't tell you who or what to back up that statement deserves a kick in the genitals. Seriously. After you put foot to groin, I invite you to hand them a copy of this paper and then shout as loud in their ear as you can for them to get fucked. These salesman care nothing for blinded study, proper experimentation, or even whether the product actually does anything. They are frauds, they want your money, and deep down I doubt they would give a second thought to your actual needs.

These frauds are doing the absolute least they possibly can to care for you. They care only to sell you a medical treatment. Would you really take that over the hardworking doctors and scientists who work diligently to provide evidence that their treatment will actually treat you, or conversely that they will then abandon flawed methodology or hypothesis when they provide evidence that their treatment does not work?

I've dealt with these frauds. As a cancer patient I get all kinds of crap thrown at me. I've been told over and over and over that Vitamin C, Shark Cartilage, Laetrile, or Coral Calcium will cure my cancer. I've been told the cancer was able to form because my body is too acidic and if it were more alkali that cancer would just shrivel and die. All of that was complete bullshit mixed in with the big pharma scare tactic, and a lot of psuedo-science. None of those substances has any effect on cancer, and the acidic/

alkali argument is so unbelievably ignorant of how the human body works it's completely laughable.

My cancer was faulty mitosis of platelet cells cloning out of control. When it becomes systemic it will be because one or two of those faulty cells broke off and nestled somewhere else in my body to start the whole process over. I didn't have the operation to remove my tumor because "surgeons like to cut," I had it because I needed it - plain and simple. I had radiation therapy not because some ugly conspiracy forces me to in order to keep me sick, I had it because it has shown time and time again to kill cancer cells. If or when this progresses to a systemic disease I will have chemotheraputic treatments not because that's what big pharma wants to sell me on, I will have them because I can read the many studies showing hard evidence that these treatments are effective. I will take the new emerging myeloma drugs like Revlimid and Velcade because I can read you the peer published papers based on double blinded studies showing their effectiveness, not because I saw a commercial with a puppy in it thought up by a greedy bunch of big pharma executives.

I will put my life in the hands of those that work on demonstratable data. I will put my life in the hands of those that will recommend course of treatment because empirical data shows us that treatment works. I will put my understanding of science and cancer to work destroying the intellectually lazy want to believe in fairy tales and simple quick cures because I KNOW why science is my best bet. This isn't faith. This isn't religion. This isn't dogmatic. This is being informed. This is understanding my disease and knowing what my options are.

I will place my life in the hands of those doctors and scientists that actually are doing everything they can to save my life. To be given advice based on little or no actual study is insulting. To be given advice that is magical or wishful in it's thinking, or downright ignorant, is insulting. To be given advice based on bullshit is insulting. If you were having car problems and someone told you to replace your blinker fluid you would tell them to fuck off. If you were having computer problems and you were told to hold the "any" key down while opening the CD-ROM drive you would tell them to shut the hell up.

If you tell me to treat my cancer with unproven and downright fraudulent health advice I won't tell you to shut the hell up or to fuck off. That wouldn't express my response fully. You won't get swearing or insulting language from me.

You'd get punched in the fucking face. It's THAT insulting to a cancer patient to tell us to use treatments that won't do anything for us. It is that insulting to shit on the front lawn of science's solidly built brick house and then offer us shelter in a straw hut.

It is insulting not only to me as a patient, but to the nuerosurgeons that repaired my spine, to the oncologist that helps me monitor and treat my disease; it is insulting to all the clinical researchers working hard to test new medicines and treatments; it is insulting to every science teacher you had in school; it is insulting to everyone that helped develop every modern convenience you take for granted every single day.

Thanks for listening to my story. I sincerely hope you (whoever you are reading this) never has to face a serious illness such as cancer but if you do remember everything I have said.

In the end it is science, and only science, working as hard as it possibly can to save your life. If you don't believe me, take a look at my spine one more time:

