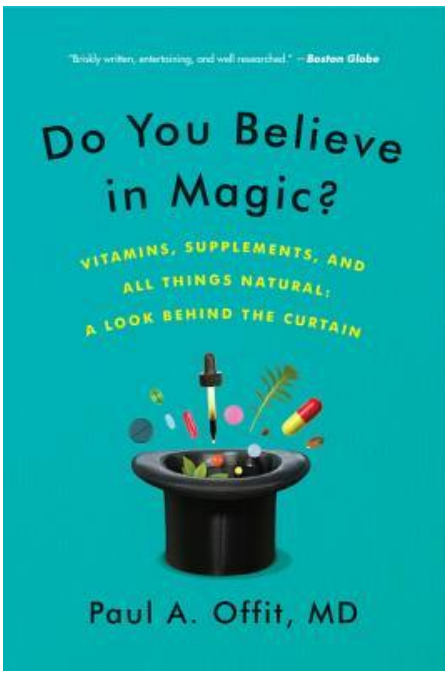

Do You Believe in Magic?: The Sense and Nonsense of Alternative Medicine

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In *Do You Believe in Magic?*, medical expert Paul A. Offit, M.D., offers a scathing exposé of the alternative medicine industry, revealing how even though some popular therapies are remarkably helpful due to the placebo response, many of them are ineffective, expensive, and even deadly.

Dr. Offit reveals how alternative medicine—an unregulated industry under no legal obligation to prove its claims or admit its risks—can actually be harmful to our health.

Using dramatic real-life stories, Offit separates the sense from the nonsense, showing why any therapy—alternative or traditional—should be scrutinized. He also shows how some nontraditional methods can do a great deal of good, in some cases exceeding therapies offered by conventional practitioners.

An outspoken advocate for science-based health advocacy who is not afraid to take on media celebrities who promote alternative practices, Dr. Offit advises, “There’s no such thing as alternative medicine. There’s only medicine that works and medicine that doesn’t.”

Do You Believe in Magic?: The Sense and Nonsense of Alternative Medicine Details

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From Reader Review Do You Believe in Magic?: The Sense and Nonsense of Alternative Medicine for online ebook

Gendou says

This book is like a vaccine against quackery.

Offit names several of these quacks, and describes the tragic consequences of their alternative (non-)medicine.

It contains demystifitude of these truly awful myths:
* Acupuncture
* Chiropractics
* Homeopathy
* Mega vitamins
* "Supplements"
* "Natural" medicine
* Anti-vaccine
* Antineoplastons
* Bogus cures for autism
* Bogus cures for cancer
* Chronic Lyme Disease

And debunkment of these truly awful people:
* Dr. Oz
* Dr. Mercola
* Deepak Chopra
* Andrew Weil
* Jenny McCarthy
* Suzanne Somers
* Stanislaw Burzynski
* Linus Pauling

Elizabeth Fuller says

On one hand, I agree with just about everything the author says in this book. On the other hand, I can't help feeling that he's preaching to the choir (of which I'm a member), and I doubt that what he says here, and the way he says it, will do much to change the views of those who do "believe" in alternative medicines.

Still struggling to figure out what he could have done differently to pull those folks in and give them something to shift their mindsets, but not quite sure what it would have been. Perhaps a checklist of words or techniques to look for when evaluating promotions or publicity for alternative medicines and healing techniques? Stories from people who had pursued such treatments and had their minds changed by the failure of the efforts (rather than just third-party descriptions or lists of patients who tried it and then died)?

I'm reminded of something I read about the success of conservative media a few years ago, in which it was

noted that recitations of "facts" are perceived as condescending to those who disagree with them, and that audiences of true believers are much more responsive to and convinced by personal stories told by people they can identify with (which are perceived as more "true" than actual statistical facts).

Thus a book like this might be more successful if, along with the litany of names and numbers of people who have died, pulled from various news accounts, we have personal stories from them or their surviving families talking about the failures involving them or their loved ones...which may be the only thing that will counter the positive testimonials paraded by the practitioners.

Just a thought.

Danielle says

This book was fascinating! I didn’t expect to get sucked in as much as I did. There was a recent Parks and Recreation episode where Leslie Knope says “All we have on our side are facts and science, people hate facts and science!” It’s all I kept thinking when reading this book! Most of the situations in this book highlight the fact that people are drawn to shiny advertisements and hearsay more than science. I agree, it seems like the author picked out some of the craziest situations with the most quacky doctors, but I thinks that’s what made it an interesting read. I was expecting the book to focus on both alternative medicines that work and those that don’t, but this book was almost solely about the ones that don’t. I kept googling everything I read being line “No wayyyyy!”. I had NO IDEA that “dietary supplements” were not regulated by the FDA. I feel like this book just taught me to make sure I know what I’m putting into my body and not be swayed by the fads.

Sue says

I am not sure what I was expecting from this book..but I felt like this was a repeat of a lot of other things I have read.. he is repeating the same stories about a lot of people.. I don't know why he bothered to put the 'sense' of alternative medicine in the title as he seems to have no use for any kind of it.. I would like to think that there is value in some supplements but I guess I need to do my own exploring to find that out for sure.. and maybe it is because I am a fan of Dr. Oz - Dr. Weil - and even Dr. Chopra that I found his put-downs of them hard to take... to me the whole idea of alternative medicine is to just use common sense.. and some of his stories were about people who did not do this... I guess I just felt like this was a very negative book...

Kris Patrick says

Probably a four star book but I'm giving it a bonus star for dedicating 2 full pages to what an idiot Indiana's own Dan Burton is. I could probably write a ten page essay on my personal experiences related to Do You Believe in Magic, but it's summer and who wants to write that let alone read that. As someone who has dealt with rheumatoid arthritis for over fifteen years, I needed this book. It helped me reconcile a lot of my conflicted thinking. I've let media and individuals trick me into believing that I should have been pursuing "alternative" medicine since the beginning when Offit repeatedly reminds us that there are two types of medicine: medicine that works and medicine that doesn't. I appreciate that Offit doesn't touch food based

therapies though I'm pretty sure he'd wary of a gluten free or casein free diet acting as a panacea for any given ailment. While I, too, am wary of elimination diets performing miracles, I remain a steadfast advocate on the powers of a plant-based diet for everyone!

Nancy says

Interesting, but extremely one sided an annoying. The author seems totally on the side of big pharma and the FDA. He does acknowledge though that a lot of modern medicine (aspirin, for example) comes from old folk remedies and herbal treatments. But he seems to think if it isn't FDA approved as a drug, then it's useless. The FDA has done just as much harm as good. Drug recalls, anyone? In his view, if the FDA does it, it was just to lack of long enough trials or "oops", but if some trying to help someone does it, then they are money grubbing murderers. Yes, there are plenty of quackadoodles out there, but not everyone is. Those who do it only for the money claiming to cure cancer or autism with urine and good vibes truly are scum.
This book is very biased toward chemicals and states that man made are just as good as natural, which I don't believe. But then he turns around and claims man made vitamins are bad. Which is it? Make up your mind! I think some alternative medicine does work and can be a good idea. Even if it is just placebo. If its not hurting you or someone else, then fine. I for one, will continue to take glucosamine and chondrotin because its the of thing that works for my knees. Devils claw is the only thing that works for my back. It may be placebo, but for $10 a month, who cares?

Kathryn says

As a person who suffers from a chronic health condition, I've tried EVERYTHING to alleviate symptoms. Acupuncture, supplements, ayurveda, homeopathy, reiki. Name an alternative medicine, I've done it. **And while some treatments mitigated pain, none--as promised--eradicated my condition.** What finally helped? The correct, evidence-based medical treatment. I've spent THOUSANDS experimenting with potentially harmful therapies. Therapies that barely worked. **Boy, do I wish I had read Dr. Paul Offit's *Do You Believe in Magic* earlier. I would've saved both money and a fuckload of heartbreak.**

Dr. Paul Offit has an extensive resume. He's a **pediatric doctor specializing in vaccines, immunology and virology.** He's a medical pioneer who is responsible for saving millions of lives. **Translation: he knows of what he speaks.** In *Do You Believe in Magic,* Dr. Offit creates an **easily digestible read perfect for the medical layperson.** He comprehensively evaluates various complementary and alternative treatments without condescension.

If you worry that Dr. Offit will discredit or disparage your healing modality, never fear. While he uses science to disprove fanciful treatments, he places the onus on the "doctor." Patients and parents are given their due respect. Dr. Offit never wholly rejects complementary medicine--as long as it isn't harmful. **Offit's central thesis is that complementary and alternative medicine CAN be used in conjunction with evidence-based treatment, but should never be a replacement.** Offit is trying to make patients informed consumers, rather than victims of **modern snake oil salesmen.**

Summary: if you want sound, evidence-based medical advice, give this book a read.

Jonathan Hiskes says

Offit delivers an impassioned call against the misuse of complementary and alternative medicine (CAM), documenting troubling cases of people taking megadoses of vitamins without medical supervision, and fraudulent hucksters deceiving families desperate for miracle cures. This may be a public service, but it doesn't advance knowledge on the proper role for CAM, as Offit focuses only on irresponsible practitioners. He is more than a little arrogant in mocking non-mainstream, non-Western bodies of knowledge. And he is more than a little naive in arguing that all conventional medical practice rests on solid clinically tested foundations. Curiously, Offit notes that many Americans have turned to CAM out of dissatisfaction with the conventional system, yet he shows no interest in ways conventional care might be informed or re-formed with CAM influences (such as payment systems that allow doctors to spend more time with patients, or doctors with better training in nutrition and stress-reduction practices).

For a much more helpful approach to CAM and mainstream medicine, see David H. Freeman's 2011 Atlantic article, "The Triumph of New-Age Medicine." Freeman shows how modern medicine has been spectacularly successful with infectious diseases that used to end lives earlier. Now that we live longer, we face chronic diseases (cancer, heart issues) -- and we even have near-consensus on the roles that diet, exercise, and stress play as solutions. The key question is what kind of healer can help people with those factors -- a question Offit might have explored.

Allie says

I highly recommended this book for any science-minded person with questions about alternative medicine. The main thrust of the book talks about specific therapies, celebrity spokespeople, and practitioners who peddle risky false-cures and are certainly extremely dangerous. I alarmed to see how many of these absurd people and treatments persist today. This book sent me down a PubMed rabbit hole reading about clinical trials and lit reviews of most treatments mentioned in the book.

[Note: Before the rest of my review, let me define some terms. I use the verb “works” when a treatment is scientifically proven, with peer-reviewed, repeatable, reputable, accurate results in a scientific trial. “Medicine” means evidence-based medicine. I will use the term “practitioner” to refer to people who practice alternative therapies and are definitely not medical doctors.]

Science denial is one of the most frustrating things in the world for me. Alternative medicine becomes really dangerous when practitioners discourage patients from using treatments that actually work. Any practitioner who claims that their therapy works just because it’s innately true is a total quack. If it works, test it. People who create something “miraculous” then refuse to have it tested or refuse to believe the results of a trial are hucksters and frauds. Any doctor who demands patients not question their methods or their treatments is a quack. So many of these alternative practitioners and celebrity spokespeople refer to conventional medicine as being dangerous, harmful, or something vital that doctors withhold from patients. That’s idiotic. Magic bullets don’t exist, but that won’t stop people from looking for them and believing in fake miracle cures. Sadly this book only briefly took on chiropractic, so I highly recommend How to Fake a Moon Landing’s chapter on it.

Throughout this book I was repeating to myself the mantra of the (highly recommended) medical history podcast Sawbones: CURE-ALLS CURE NOTHING. It was truly shocking to read how often coffee enemas are used to treat everything from cancer to aging to autism. That's madness. Or how many many many different causes for a disease are put forth (for example autism being caused by misalignment of the spine, lack of oxygen, immune cell imbalance, heavy metal poisoning, incorrect wiring, chronic viral infections, intestinal parasites, lymph gland blockage -- to name just a few!), with myriad absurd and contradictory treatments (like chiropractic manipulation, hyperbaric chambers, infecting children with hookworms and whipworms, coffee enemas, magnetic stimulation, antiviral medications, chlorine dioxide [an industrial bleach], and lymphatic drainage massage, respective of the causes listed above).

Autism and cancer were probably the two most difficult sections, because it's really clear how practitioners take advantage of desperate people. Even rational and reasonable people can be taken in when dealing with a traumatic diagnosis. So many of these therapies are so expensive, completely unregulated, and completely unproven. Stanislaw Burzynski's antineoplastons (for cancer) Rashid Buttar's use of chelation therapy/topical creams (for everything basically) are two horrifying science-denying "doctors" who prey on people in desperate situations.

One thing that stuck in my craw so bad: the lack of regulation in the vitamin/supplement industry. This is totally unconscionable to me. I don't know why I assumed there was regulation in that industry, but it's likely because of how vitamins are portrayed as essential and medical. The industry is seen as healthy and natural, but it is completely unregulated by the FDA (or anyone else!). Why should these supplements/remedies not be held to the same rigorous scrutiny as other drugs? They don't have to report side effects! All the testing and regulation falls to the manufacturers and there is no regulatory oversight for manufacturing practices! They can also put virtually any health claim on a supplement label so long as it's accompanied by, "These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease." That's unbelievable. There are no guaranteed purity standards and no standardization of active ingredients. They have to prove NOTHING before selling a supplement or herbal remedy. And basically nothing after. I highly recommend this article from Science Based Medicine about supplement regulation (link). I also recommend this article (link) from the NYT about contaminants found in supplements, and this article (link) from Consumer Reports about the false claims of herbal remedies.

The last part of the book touched the very important effect of a lot of alternative therapies: the placebo effect. This can be incredibly effective with alternative treatments provided the treatment itself isn't harmful and it's not given with a discouragement toward actual medicine. Homeopathic "medicine" is literally just a placebo, so provided it's not actively harmful it could possibly be beneficial in the short term. The placebo effect is powerful, and should be studied more to really understand how science can harness it better.

My only complaint is that there are tons of endnotes to support the claims made in the book, but no indication of that as you're reading. It makes the book more readable (you're not constantly being interrupted by numbers or symbols), but it makes it seem like he's pulling things out of the air unsupported. The support is there, it's just way at the end.

Text Addict says

Written in a clear and conversational tone, this book explains a lot about what's going on with the "alternative medicine" movement in the US. I actually found myself staying up late reading it because it was

both so absorbing and so appalling that I couldn't put it down.

It's not likely to convince those who already believe in these things - but it also tackles some things that might have flown under the radar of even informed citizens, such as myself. I hadn't known, for instance, that studies have shown that people taking megavitamin supplements had higher incidences of cancer and heart disease than the control group. I didn't realize how self-serving the "Chronic Lyme Disease" crew actually are (they claim the bacteria can hide so well that there are no antibodies to find, which is absurd). And I hadn't read before that trials of acupuncture have actually been done that showed that retractable needles (which can be felt touching the skin but stop there) work just as well as regular needles (placebo effect in action).

And something I sort of know but hadn't really thought through before: All of these supplement type things are completely exempt from FDA regulation. Totally. They can grind up rat turds as part of their preparations or sell plain sugar pills as treatments and the US government has deliberately legislated away any power to do anything about it. Which is just insane and really needs to change.

The really short version of the book would probably be: There's no such thing as "alternative medicine" - there are things that work, which are medicine; and there are things that don't, which are not medicine (I'm paraphrasing from memory something that he actually says). Which must be followed up by an important question: If treatment X, Y, or Z works so well, why don't its proponents run formal clinical trials to demonstrate it?

Offit also gives space to the importance of the placebo effect, wondering what the medical profession can do to better harness it (and the ethical conundrums that arise from the very idea). Altogether a very interesting, and sometimes disturbing, examination of a very important social phenomenon.

Keith says

“Snake Oil, Hustlers and Hambones'; Flimflam; Quackery and Nostrums; Hucksters." One can provide a sense of Dr. Paul Offit's book by cherry picking words from the titles in his bibliography. Offit provides an energetic profile of some of the worst charlatans in the current iteration of nutritional pseudo-science. He names names: the celebrities Suzanne Somers, Jenny McCarthy; the mad doctors, Andrew Weil, Joe Mercola, and from Oprah's inner circle, Mehmet Oz. He details the invention of a new disease "Chronic Lyme Disease," the Burzynski urine cure for cancer, and more.

Chapter 8, “Curing Cancer: Steve Jobs, Shark Cartilage, Coffee Enemas, and More” gives a capsule history of medical chicanery in the early twentieth century. Men such as Albert Abrams, William Koch, Harry Hoxsey and Andew Ivey promoted the most astonishing "cures" to a public both gullible and desperate. Abrams was one of the first to exploit new technologies:

> “Abrams claimed that cancers—as well as diseases like tuberculosis, gonorrhea, and syphilis—emitted different vibrations, like radio waves. To detect them, he invented the Dynamizer, a boxed jungle of coils, batteries, and rheostats. Two wires came out of the box: one plugged into a wall socket, and the other cupped onto the patients’ forehead. To make the correct diagnosis, Abrams took a drop of the patients’ blood and placed it inside the box. Patients then stripped to the waist, faced west, and stood in a dimly lit room while Abrams felt

> their abdomen. The Dynamizer could also detect the patients' place of birth, ethnic background, year of death, religion (Jews had duller abdomens than Christians), and golf handicap. Abrams leased his machine for $250 (the equivalent of about $8,000 today), with a $5 monthly user fee. Robert Millikan, winner of the Nobel Prize in Physics in 1923, described the Dynamizer as something "a ten-year-old boy would build to fool an eight-year-old."

Or Koch:

> "In the 1940s, William Koch invented a bogus cancer cure called glyoxylide, a combination of two carbon monoxide molecules. Unfortunately, carbon monoxide molecules don't stay together very long—separating in less than a hundred-millionth of a second into a gas. Koch sold his cure to thousands of doctors, who charged $300 per injection. When analyzed, chemists found that Koch's glyoxylide contained water—and water only"

Such flimflam might seem humorous now, " oh how silly and stupid our ancestors were, but we have progressed, we have a government agency, the FDA that protects us, a result of beneficent government." Would that this was true since, in addition to providing profiles of our current roster of quacks, Offit also details the all-too-successful lobbying efforts that placed the regulation of vitamins and supplements beyond the reach of the FDA. It's a brisk and often all too sad read. The stories of desperate parents willing to do anything and to spend everything to save a sick child only to have their child die and be left with only bitter memories and empty bank accounts is truly heart wrenching. Recommended.

Diane S ? says

3.5 I have always had a great deal of curiosity for alternative therapies, so many people have claimed it has made a huge difference in their lives. After reading this book I think it might be a case of mind over matter. Offit tackles everything from the laetrile nightmare that cost so many people their lives, to Dr. Oz and his menage of alternative mystics and n to Suzanne Sommers and her multi million
empire based on the supposed assumption that not only did she recover from cancer by going her own way but that she has also found the fountain of youth. I am a skeptic, I will admit it, fr every one person that says something has helped them, there are usually many more that say it didn't. Vitamins are covered. Are they good for you? Many will probably be surprised at some of the contentions in this book. Am I any less confused, maybe some but as long as there are competing experts out there, some saying do this and others saying no, that is not good for you, do this, I will just keep using my common sense and make my way somewhat in the middle.

Jakob J. says

The most frustrating thing about *alternative* medicine, is that there is, in reality, no such thing. If *alternative* medicine is beneficial, then it's medicine, and there's nothing alternative about it. The *alternative* in alternative medicine refers to it being an exclusive, proudly divergent industry from conventional medicine with its clinical trials, replicable studies, and recalls of harmful or ineffective drugs; and make no mistake, it

is a massive and lucrative industry. To top it off, the completely unregulated market means that not only can its proponents and sellers make any wild claim about a particular treatment's efficacy (often times they are magical cure-alls), but they can also charge virtually whatever they want. After all, how can you put a price tag on your health? You get what you pay for, right?

Paul Offit became the arch-villain and poster-boy for evil Big Pharma in Jenny McCarthy's misguided campaign to stop children from being vaccinated. I happen to think he is fighting an important fight. He is a pediatrician and he devoted twenty five years to co-developing the rotavirus vaccine, RotaTeq. I'm sure many have seen the map displaying the resurgence of several preventable diseases due to vaccine fear and denialism over the past few years. This has in large part been due to a discredited medical researcher named Andrew Wakefield, who conducted doomed studies (with conflicts of interest up the ass) asserting that the MMR vaccine caused autism. Hardly an unknown story, so I won't get into it here. Offit has written books, articles and has appeared in documentaries to push back against this anti-progress and ultimate irresponsibility.

Anything that is claimed to be a cure-all is probably a cure-nothing. Worse, it is probably a prevent-nothing, alleviate-nothing, but it is not always a harm-nothing. Even Offit, who has been studying medicine for decades, has had it recommended to him that he abandon his experience and, as the mantra often goes in alt-med circles, 'take control of your health'. Of course there are debates going on within medical science as to the best, most effective, safest treatments for patients, as with any field of science (punctuated equilibrium, string theory, anyone?), but the naturopaths, homeopaths, acupuncturists and, often times, chiropractors, have somehow discovered that their treatments render all other drugs and therapies and treatments for various diseases irrelevant. It's strange how practitioners (I use the title loosely) of these alternative methods rarely disparage each other's methods (certainly not to the degree of conventional methods). Perhaps this is because the Achilles heel for one of them is the Achilles heel for all of them; namely, lack of evidence.

It's very difficult to untangle the mess of products available on the market, their praise-singers (some of them real doctors), and how seriously to take them. Our world is replete with afflictions and ailments and pestilences that have forced every human being ever born to watch someone they love degenerate, writhe in pain, or die horribly. I think it could be inherent in us to flock to whatever promises an end to the suffering we will all one day endure. Denial of death is a common theme in all major religions (even tech-and-science ones like Kurzweil's Singularity sect). Is it any wonder that anti-aging gurus and natural, side-effect free dogmas have such devoted followings? Offit takes much-deserved shots at the media darlings responsible for pumping this stuff through its many circuits. Not surprisingly, Oprah Winfrey was kind of the seed that sprouted the middle-America movement through daytime television (or perhaps, more appropriately, the virus that infected its viewers). Through Oprah, we got Dr. Oz, and through Dr. Oz, we got Deepak Chopra and Andrew Weil; the trifecta of new-age healing, humors balancing, and energy restoration. Not that these people weren't around prior to Oprah's touting, but that on such a platform they became mainstream and highly trusted because, hey, they're on TV!

Offit incorporates a concise history of medicine and uses it to convey why ancient remedies are not remedies at all. Science is a progressive endeavor, always rectifying itself to be most effectively applied, and rejecting past attempts which were borne of ignorance. My favorite example of this, which Offit explains perfectly, is acupuncture:

> *"Chinese physicians believed that energy flowed through a series of twelve meridians that ran in longitudinal arcs from head to toe, choosing the number twelve because there are twelve great rivers in China. To release vital energy, which they called chi*, and restore normal balance between competing energies, which they called *yin* and *yang*, needles were placed

> under the skin along these meridian lines. The number of acupuncture points—about 260—was determined by the number of days in the year. Depending on the practitioner, needles were inserted up to four inches deep and left in place from a few seconds to a few hours."

This exposes the arbitrary nature of ancient *wisdoms*. Just because something is old and has somehow endured, does not make it useful. This practice was implemented two hundred years before that Jesus fellow was allegedly born, when we didn't know germs from demons, and the concept (or discovery) of the nervous system was centuries out.

There is quite a controversy stirring in the vitamin industry. I can hardly begin to sift through this mess. On the one hand, we know vitamins are essential. We also know that most of these vitamins are not produced by the body, so we have to ingest them, thus the Recommended Daily Allowance. Studies have been being conducted in recent years and they are controversial to a degree. Some experts have expressed their doubts as to the legitimacy of certain studies, though I haven't been able to find which specific studies (all of them?). In more than one study, vitamin supplementation had been ostensibly linked to higher cancer risk and death. Linus Pauling, the nobel-prize-winning chemist and peace activist, was the grandfather of the vitamin craze, as Offit explains, *"What few people realize…is that their fascination with vitamins can be traced back to one man…*" He's the reason Vitamin C is supreme in public consciousness. He recommended taking 3,000 milligrams of the stuff per day and that it could cure the common cold (inevitably, this gave way to even crazier claims of its curative powers), and here's where I get really confused. On a recent episode of Joe Rogan's podcast, The Joe Rogan Experience, one Dr. Rhonda Patrick bemoaned findings (again, which specific findings, I am not at all sure) that vitamin C, taken orally, was not effective in combating or preventing any illness. Dr. Patrick's contention was that Pauling had taken his dosages intravenously and so the orally supplemented studies were moot. But, if that's the case, why was Pauling recommending supplementation, and so much of it? A far as I can tell, Pauling never specified that it should be taken intravenously, and what's more, that would be impractical for your average patient to inject themselves, or to hook up to an I.V. every day for vitamin intake. And why are ingestible vitamin C tablets and pills the only things readily available, if intravenous is the way to go? I know I'm missing something, and I'm no expert, but until evidence tips the scale in the other direction, I'll eat oranges instead of supplementing. Apologists for Pauling ostensibly like to ask "do *you* have a Nobel Prize?", to which I would respond, no, and neither does Pauling…in medicine.

The FDA is not perfect, and they have been pressured to and have allowed drugs to pass through the approval-stage without enough diligence, but here's the thing; they are held accountable for mistakes and perfunctory approvals. The FDA issues recalls, pharmaceutical companies must face the consequences; the supplement industry has no such regulation in the first place and so never has to answer for its useless or potentially dangerous products. It has successfully merged leftist-anti-corporate animus with libertarian free-market-anti-government-intervention values. The market has spoken, and supplements are big business. Of course, its customers don't like acknowledging this. No, these are the more natural products that big bad pharma **doesn't want you to know about!** Gerry Kessler, founder of the supplement company Nature's Plus *"must have known that he couldn't defeat the FDA by proving his product's claims. His best chance was to persuade the American public that what the FDA really wanted was to limit their freedom."* Sound familier? Proponents of deregulation don't care to rely on evidence, as it is often inconvenient for them. What they invoke is the freedom to sell snake oil, or tainted meat, or to pollute, or poison water, or eschew worker safety because it is their inalienable right to do so and these are acceptable prices to pay for their profits. (Yes, I am comparing the supplement industry to the oil, gas, and meatpacking industries [I invoke Upton Sinclair's name far too often, but even Offit does in this chapter]). The market itself will not sort this stuff

out, despite libertarian dogma, and I'm not suggesting government is the sole, or even the best, overseer of these practices, but the FDA was implemented for a noble, and inarguably necessary, reason, and it's as good as whoever is conducting it at any given time, the government as a whole be damned.

"Although mainstream medicine hasn't found a way to treat dementia or enhance memory, practitioners of alternative medicine claim that they have: ginkgo biloba." This sentence resonates across so many fields, I could hardly contain myself as I read it. Neil degrasse Tyson has famously dubbed Intelligent Design a 'philosophy of ignorance', meaning, not that anyone advocating such a position is ignorant, but that the theory itself is based entirely on what we do not yet know. Alternative health claims are perfect corollaries to this philosophy of ignorance and sync up in parallel with the attitude of religious apologetics when it comes to morality, consciousness, the origins of life on earth and the cosmos as a whole. I like to call it the 'you don't have the answers, therefore we do' argument.

Cranks and quacks are everywhere, sometimes they're charlatans and hucksters, sometimes they're well-meaning hopefuls, and sometimes they're conspiracy nutcases who see the lack of forthcoming evidence in their favor as a personal affront and deliberate orchestration to hide the truth. All types can and have gained traction in the medical and health sphere. Wakefield, Oz, Pauling, Blumenthal, Burzynski are only a few of the more well-known proponents of unproven, or disproven treatments, causes, and preventions.

Magnanimously and justifiably, Offit ends with positive words on behalf of the placebo response (not *effect*, because it's not a given treatment itself that does it, but the body's [brain's] response). The placebo response is spectacular. The brain can essentially be tricked into thinking it feels better. If someone feels something working, whether it's homeopathy or a sugar pill, it's that person's mind creating a response to an interchangeable and expendable treatment. This has been remarkably useful for things like joint and muscle pain. The only problem is, it's not an actual cure. It provides temporary relief, and that's when, even if it helps you feel better and lifts your spirits, homeopathy (or any bogus treatment) becomes dangerous. Placebos, powerful though they may be, cannot cure cancer, diabetes, AIDS, or anything else. Being aware of its limitations is important, lest someone desist from their chemotherapy, insulin, dialysis, antiretroviral drugs in favor of coffee enemas, herbs, spices, and therapeutic touch. However responsive one may be to a placebo, there is no evidence to suggest it shrinks tumors or wards off terminal illness.

I think Offit's thesis with this project is that we should not give alternative medicine a free pass "because we're fed up with conventional medicine". It's saddening and maddening to live in a world that has no qualms with infecting us with horrible diseases and maladies, and doesn't even have the courtesy to lay out obvious treatments for us. When it comes down to it, everything is natural, and natural does not equal good, or safe. This capriciousness in nature has paved the way for fearful people, parents in particular, to veritably lose their minds in their pursuit to keep themselves and their children safe and healthy.

I will take my leave with these fine words from the prologue to this book:

> *"I learned that all therapies should be held to the same high standard of proof; otherwise we'll continue to be hoodwinked by healers who ask us to believe in them rather than in the science that fails to support their claims. And it'll happen when we're most vulnerable, most willing to spend whatever it takes for the promise of a cure."*

Lisa says

Paul Offit states, "The purpose of this book is to take a critical look at the field of alternative medicine--to separate fact from myth.... There's only medicine that works and medicine that doesn't."

Offit begins with the "Laetile" treatment for cancer which resulted in the deaths of many including actor Steve McQueen.

Offit takes on so called celebrities Oprah and Dr. Oz who hold out questionable therapies to a desperate public who distrust modern medicine based on the long and questionable early history of medicine. Offit puts modern medicine in its proper light, "From the beginning to the end of the twentieth century, the life span of Americans had increased by thirty years. None of this increase occurred because healers balanced humors, restored chi, or offered sacrifices to the gods; it occurred because we finally understood what caused diseases and how to treat or prevent them."

Do you take supplements? "On Oct 10, 2011, researchers from the University of Minnesota found that women who took supplemental multivitamins died at rates higher than those who didn't. Two days later, researchers from the Cleveland Clinic found that men who took Vitamin E had an increased risk of prostate cancer."

Perhaps in chemistry class you remember reading about Linus Pauling who revolutionized thinking about the bonding between atoms. Pauling went on to other accomplishments and to make other great discoveries.However, in 1966 when he was 65 years old, Pauling started experimenting with taking vitamins supplements. He noted his increased feeling of well being and so he wrote a book that suggested vitamin supplements as the cure for the common cold and flu.

Author Offit sites studies that show no correlation between supplements and curing the cold. Forty years later the common cold and the flu are still with us, so draw your own conclusions.

In 1971 Pauling doubled down and claimed that Vitamin C cured cancer. Later Pauling suggested that mega vitamins could cure every disease.

Offit points out, "Studies have shown that people who eat more fruits and vegetables have a lower incidence of cancer and heart disease and live longer. The logic is obvious: if fruits and vegetables contain antioxidants--and people who eat lots of fruits and vegetables are healthier--then people who take supplemental antioxidants should also be healthier. In fact, they're less healthy."

Offit sites a 1994 National Cancer Institute Study, "Those taking vitamins and supplements were more likely to die from lung cancer or heart disease than those who didn't take them."

In 2005 a study published in the Journal of the American Medical Association found "those who took vitamin E were more likely to develop heart failure than those who didn't."

Offit cites more studies and concludes, "High doses of vitamins and supplements increase the risk of heart disease and cancer; for this reason, not a single national or international organization responsible for the public's health recommends them."

Offit asks the big question, "Despite a wealth of scientific evidence, most Americans don't know that

megavitamins are unsafe. So why don't more people know about this? And why hasn't the FDA sounded an alarm? The answer is predictable: money and politics."

Enter the politicians, the lobbyists, the FDA, Hollywood, and lots of $$$.

"In the end, industry money trumped common sense. On May 11, 1994, the Dietary Supplement Health and Education Act became law." The politicians always give it a nice name; too bad it is deceiving! "Put lamb's brain in a drug or food, and prepare to spend millions of dollars and a few years on studies showing that it is safe and effective; put it in a supplement and you're good to go, no evidence necessary."

An interesting thought of mine: politicians happily report negative stats comparing the US system of health care to other nations. The implication is that our doctors and health care facilities are not up to par. The real truth is that the US score is based on the fact that many do not have health insurance and on the bad health habits of so many in the US brought on by obesity, smoking and alcohol/drug abuse.

Meanwhile our politicians are in bed with supplement makers (and anyone with $$$), and so they look the other way on something that could negatively influence the health of real people.

Offit goes on to examine various supplements and studies evaluating their effectiveness.

Offit concludes that the best way to get the nutrients necessary for the human body is through diet.

Offit takes on Hollywood stars who have wares to sell in one chapter. If you have ever been tempted by those interviews with Suzanne Somers (and others), read this book!

Offit also has chapters on autism, Chronic Lyme Disease, shark cartilage, Burznski's urine cure, and modern snake oil salesmen. He also looks at why placebos appear to be effective.

If you live in CT, please read the chapter on Chronic Lyme Disease and the part played by now Senator Richard Blumenthal who serves on the Health, Education, Labor and Pensions committee. Once again our politicians are willing to take $, play on the emotions of the sick, and garner power as they do it! Need I say it?? We need transparency and accountability in Washington, D.C.!

This book was a real eye opener for me and I highly recommend it to all. I know some of you are now thinking about those studies on vitamins and thinking, "Correlation does not prove causality." I agree on that point and it is possible that people with unhealthy habits take vitamins in hopes that the vitamins will cancel out all the bad things they take in their bodies. However, read the book and form your own opinion!

Alexis says

This is a fairly brief survey of alt-med/pseudoscientific quackery. It covers a bunch of the Greatest Hits of Woo: Suzanne Somers, Deepak Chopra, Dr. Oz, cancer quackery (Burzynski, laetrile), the lack of regulation of the supplement industry, autism, and the placebo effect.

The only real flaw of the book is that it could easily have been twice as long, if not longer. In only 250 pages, Dr. Offit only gets to touch on a lot of the issues surrounding alternative medicine. If you've been a regular reader of blogs such as Respectful Insolence, a great deal of the material will be familiar to you. (I

read the bibliography and went "know him, woo, woo, read that, read that, woo, woo, woo...." - Let no one accuse Dr. Offit of not having read the material he criticizes.)

I have two specific criticisms of the book: First, he attributes Steve Jobs' death to his decision to delay traditional cancer treatment. Other physicians have taken issue with this interpretation. Second, his chapter on harnessing the placebo effect is a bit of a mishmash and doesn't take the time to explore how this can be done ethically and the implications of encouraging quackery, particularly homeopathy.

If you're just dipping your toes into learning about alternative medicine and quackery, this is a good intro. Also read Trick or Treatment (Edzard Ernst and Simon Singh) which goes into greater depth on several topics, with a more rigorous focus.
