## The Tim Ferriss Show Transcripts Episode 23: Do "Homeopathic" Remedies or Medicines Work? Show notes and links at tim.blog/podcast

**Tim Ferriss:** This is Tim Ferriss and welcome to another episode of the Tim Ferriss Show. Thank you for listening. This is a short in between-isode. It is a short essay intended to be food for thought for this week, the coming week, or the weekend. And this episode is meant to be a change of pace in between the larger, longer interview episodes that can run from one to two hours in length. And today we are going to talk about homeopathy. This is something that has bugged me for me for many, many years and the title of this essay is The Truth About "Homeopathic" Medicine.

So, homeopathy. Homeopathic medicine – these are terms that get thrown around a lot. We see many, many proponents. We see a lot of propaganda, advertising, even clinical studies in some cases. What does it all mean? And to explain that – to get to that point, we can start with a bit of background.

I personally routinely use an arnica gel for minor muscular strains, different types of injuries and what not. In fact, it is one of my go to treatments and there are many different ways to apply this topically.

In 2010, however, I found myself swallowing Boiron Arnica Montana 30C pellets. We'll come back to that, but it is an oral version that was the only option at the closest GNC. So, I started at five pellets, six times a day, which was twice the recommended dose. You would think I would have a risk of overdose, but it is not very likely. 30C, which I looked up that evening, tells you pretty much everything you need to know about traditional homeopathy.

See, this consumable option of Arnica, unlike the creams I had used in the past was a homeopathic remedy. Samuel Hahnemann, a German physician, pioneered the field of homeopathy in 1796. If you could even use the term pioneer and apply it to an alternative "medicine" founded on concepts like mass delusion and beatings with horse hair implements, I kid you not. Form the Wikipedia entry for homeopathic delusions last I looked, we find the following.

Homeopaths use a process called "dynamization" or "potentization" where by a substance is diluted with alcohol or distilled water and then vigorously shaken by ten hard strikes against an elastic body in a process called succussion. Hahnemann believed that the process of succussion activated the vital energy of the diluted substance. And that is the end of the excerpt that I pulled out of Wikipedia.

To this I would respond with, right. So, let us look again at 30°C. What does this mean? 30°C indicates a ten to the negative 60 – ten to the negative 60<sup>th</sup> dilution. The dilution most recommended by Hahnemann. To put that in perspective, 30°C would require giving two billion doses per second to six billion people for four billion years to deliver a single molecule of the original material to any one person. Put another way, if I diluted one third of a drop of liquid into all of the water on the face of the earth, it would produce a remedy of a concentration of about 13°C, more than twice the so called strength of our 30°C Arnica that you can find at whole foods and all sorts of other outlets.

Most homeopathic remedies in liquid are indistinguishable from water and do not contain a single molecule of active medicine. In systematic review after systematic review – and you can find this on PubMed and elsewhere. These diluted homeopathic remedies display no ability to heal beyond placebo.

I found this particular bothersome. Now, why would I find all of this bothersome? Seems pretty straight forward, right? I found it bothersome because I appeared to heal faster using oral 30C Arnica. What the hell? There are a couple of potential explanations. The first is option number one, homeopathic remedies work as advertised. The water actually retains some "essential property of the original substance because of the beatings and shakings." I give this a probability of somewhere between zero and epsilon. Where epsilon is almost zero.

The concept violates the most basic laws of science and makes my head hurt. Important note here, some people use the term homeopathic interchangeably with organic or herbal. I am not addressing this misnomer, no the associated compounds. Some herbal, nonprescription medications have tremendous effects. I am only speaking to the original use of the word homeopathic as related to dilutive treatments, which is really the traditional most conventional use of the term.

Okay, explanation option number two, the placebo effect. I did not realize that this Arnica 30C was a homeopathic remedy until after four or five doses and I had been told it could reduce my pain up to 50 percent in 24 hours by someone I trusted. Placebo is strong stuff. People can become intoxicated from alcohol placebos. The placebo knee surgeries – or otherwise called sham knee surgeries for osteoarthritis for example. Where incisions are made, but nothing is repaired, can produce results that rival the real deal.

Seems crazy, totally true and there is a great article in wired magazine that talked about the evolution and distinctions between different cultures of the placebo effect. It is fascinating stuff. So, this explanation, the placebo effect, gets my vote. I think this is what happened. Now, of course, if I could forget what I read on the label and all this research into homeopathy, I could then repeat it again and again. But, unfortunately, now I know too much.

Alright, option number three, regression toward the mean and this is an important concept to understand for many, many different reasons. Imagine you catch a cold or get the flu. It is going to get worse and worse, then better and better until you are back to normal. The severity of symptoms, as is true with many injuries, will probably look

something like a bell curve, although not exactly typically. The bottom flat line – the X axis basically represents normalcy. That's the mean. So, when are you most likely to try the quackiest shit you can get your hands on? The miracle duck extract that Aunt Susie swears by or the crystals your roommate uses to open his heart chakra or whatever.

Naturally, you are going to reach for that stuff when your symptoms are the worst and nothing seems to help. This is the very top of the bell curve. At the peak of the roller coaster before you head back down to normalcy. How you feel – feel better. Naturally, heading down is called regression toward the mean. It is a natural process. If you are a fallible human, as we all are, you might misattribute getting better to the duck extract or whatever, but it was just coincidental timing. The body had healed itself, as could be predicted from the bell curve, like timeline of symptoms, right?

Mistaking correlation for causation is very, very, very common. Even among very smart people and furthermore, I would say that in the world of big data, which is exploding and becoming a major industry among other things, this mistake will become even more common not less common. And this is particularly true if researcher seek to "let the data speak for themselves" rather than test hypotheses. And what the data will say among other things, is spurious connections – spurious connections galore. So, [inaudible]

Option number four for explaining my response to the 30C. Some unexplained mechanism. It is possible that there is some as yet unexplained mechanism through which homeopathy works. Some mechanism that science will eventually explain and certainly stranger things have happened. And while we do not need to know how something works if we observe it work, which clinical trials have not demonstrated in this case. Regardless, until something even remotely plausible comes along, I will do my best to scratch my psora, it is P - S - O - R - A and that is an itch miasm that Hahnemann felt caused epilepsy, cancer, and deafness. I will do my best to scratch that with at least one molecule of active substance.

And that is my take on homeopathic medicine based on all the research that I have been able to do myself. So, do you agree or disagree? Do you have evidence to the contrary? I would love to hear your thoughts.

So, please let me know on Twitter @tferriss is my handle. @T - F - E - R - R - I - S - S. Let me know. You can also let me know in comments on my blog and elsewhere. Fourhourblog.com is the blog. This is something that has bothered me for a very, very long time, but I am open to being proven wrong and if you enjoyed this essay – this type of writing, feel free to check out my second book, *The Four Hour Body*, which contains a lot of this kind of stuff.

So, without further ado, I will wrap this up. Thank you very much for listening and you can find show notes and all previous episodes on the podcast at fourhourworkweek.com/podcasts, all spelled out. Thank you again for listening.