

# How Onion and Garlic Ruined My Research

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## 1 Introduction

It was a very hectic summer week. Almost everyday I stayed up until midnight in the lab. On the final day, even my host professor stayed up with me up to 4 AM in the morning when we did the final submission. It was a prestigious international conference and we thought we made it, our results seeming to be of pretty good quality.

But alas! After a couple of days I discovered a severe silly mistake in my experiments and actually there was a gross mismatch between what we said we have done and what we had actually done. I could immediately foresee the fate of the paper that was going to come out after three months (and no surprise we got the rejection notification in due course in time). But how could I be so stupid? I have had many failures in life, but never through such a silly casual unforgivable error.

When the shock calmed down, someone from inside uttered: “isn’t it due to the onions?” “May be” - I answered. Actually, since almost ten years I have been practicing a *Vedic* diet without onion and garlic. And of course I had experienced a positive change in my concentration level and thinking power after I had left onions and garlics for ever. But for the very few days before the above paper submission, I had to eat onions under compelling circumstances. In the past, I had heard from many reliable sources that onion and garlic affect the concentration level and have a negative impact on the brain functions. But could it be so bad, when so many people on earth are eating it everyday? I started doing some research and found some amazing facts that changed my “May be” cause to “Must be.” I would like to share these facts here.

## 2 Chemical Composition

Both onion and garlic have sulphoxide, a compound that contains sulfinyl (SO) functional group attached to two carbon atoms.

In a *New York Times* article [8] it is commented that onions and garlics have a lot in common with gunpowder! Both onion and garlic belong to the genus *allium* that includes shallot, leek, chive and rakkyo. Their sulfur-based defense systems give the alliums their

distinctive flavors. The plants deploy them when their tissues are breached by biting, crushing or cutting. The chemicals are highly irritating, and discourage most creatures from coming back for seconds. They kill microbes and repel insects, and they damage the red blood cells of dogs and cats.

Garlic cloves produce a chemical called *allicin* (2-Propene-1-sulfinothioic acid S-2-propenyl ester), which is responsible for their strong pungency and aroma. It is a relatively large molecule and acts mainly on direct contact with the eater.

Onions, shallots, scallions and leeks share a special stockpiled chemical and a second defensive enzyme. They produce a sulfur molecule that is small and light enough to launch itself from the damaged tissue, fly through the air and attack our eyes and nasal passages. This long-distance weapon is called the *lachrymatory factor* because it makes people's eyes water.

For a more technical details, one may refer to the book [2] by Dr. Eric Block.

### 3 Poisonous Effects of Onions and Garlics

Dr. Robert [Bob] C. Beck, DSc. discovered [3, 4] that garlic is toxic because the sulphone hydroxyl ion penetrates the blood-brain barrier, just like *Dimethyl Sulf-Oxide* (DMSO), and is a specific poison for higher-life forms and brain cells.

Dr. Beck was in flight test engineering in Doc Hallan's group in the 1950s. He recalls that the flight surgeon would come around every month and remind all of them: "Don't you dare touch any garlic 72 hours before you fly one of our airplanes, because it'll double or triple your reaction time. You're three times slower than you would be if you'd not had a few drops of garlic."

Dr. Beck continues in his lecture as follows: "Well, we didn't know why for 20 years later, until I owned the Alpha-Metrics Corporation. We were building biofeedback equipment and found out that garlic usually desynchronizes your brain waves." They would have people come back from lunch that looked clinically dead on an encephalograph, which they used to calibrate their progress. "Well, what happened?" "Well, I went to an Italian restaurant and there was some garlic in my salad dressing!" So they had them sign things that they wouldn't touch garlic before classes or they were wasting their time, their money and his time.

Later, he funded a study at Stanford and they found that indeed garlic is a poison. "You can rub a clove of garlic on your foot - you can smell it shortly later on your wrists. So it penetrates the body. This is why DMSO smells a lot like garlic: that sulphone hydroxyl ion penetrates all the barriers including the *corpus callosum* in the brain. Any of you who are organic gardeners know that if you don't want to use DDT, garlic will kill anything in the way of insects. Now, most people have heard most of their lives garlic is good for you, and we put those people in the same class of ignorance as the mothers who at the turn of the century would buy morphine sulphate in the drugstore and give it to their babies to put them to sleep."

He continues, "If you have any patients who have low-grade headaches or attention

deficit disorder, they can't quite focus on the computer in the afternoon, just do an experiment - you owe it to yourselves. Take these people off garlic and see how much better they get, very very shortly. And then let them eat a little garlic after about three weeks. They'll say "My God, I had no idea that this was the cause of our problems." And this includes the de-skunked garlicks, Kyolic, some of the other products. Very unpopular, but I've got to tell you the truth. Garlic can affect the mind and concentration. Do not eat it if performing activities requiring concentration and mental acuity."

In recent years there have been several studies that establish that onions may cause allergies, intestinal gas, diarrhea and heartburn [1, 9, 6, 7, 10]. Though there are some medicinal benefits of onions and garlicks (some Homeopathic medicines like *Allium Cepa* are produced from onions), as food items their ill effects outnumber the good ones.

## 4 Prohibition in Several Cultures

The article [5] gives a good review on how onions and garlicks were traditionally prohibited in many cultures around the world for similar reasons.

The **Taoists** realized thousands of years ago that plants of the allium family were detrimental to humans in their healthy state. In his writings, one sage Tsang-Tsze described the Alliums as the "five fragrant or spicy scented vegetables" - that each have a detrimental effect on one of the following five organs - liver, spleen, lungs, kidneys, and heart. Specifically, onions are harmful to the lungs, garlic to the heart, leeks to the spleen, chives to the liver and spring onions to the kidneys. Tsang-Tsze said that these pungent vegetables contain five different kinds of enzymes which cause "reactions of repulsive breath, extra-foul odour from perspiration and bowel movements, and lead to lewd indulgences, enhance agitations, anxieties and aggressiveness," especially when eaten raw.

Similar things are described in **Ayurveda**. As well as producing offensive breath and body odour, these (allium) plants induce aggravation, agitation, anxiety and aggression. Thus they are harmful physically, emotionally, mentally and spiritually.

Even when garlic is used as food in **Chinese** culture it is considered harmful to the stomach, liver and eyes, and a cause of dizziness and scattered energy when consumed in immoderate amounts.

Onion and Garlic was never adopted into traditional **Japanese** cuisine and was shunned by Zen masters.

**Reiki** practitioners explain that garlic and onions are among the first substances to be expelled from a person's system along with tobacco, alcohol and pharmaceutical medications. This makes it apparent that allium plants have a negative effect on the human body and should be avoided for health reasons.

**Buddhists, Vaisnavas** and **Jains** completely avoid onions and garlicks in any form.

An old **Turkish** legend explains that when Satan was thrown out of heaven, garlic sprouted where he first placed his left foot, and onions grew where he placed his right foot.

The **Greek** citizenry, especially the aristocracy, firmly rejected garlic and found its smell repugnant. Anyone smelling of garlic was considered vulgar and was prevented from enter-

ing the temples. However, in Aristophanes' play "Wives at the Feast of Thesmophores", the women who were cheating on their husbands found garlic the perfect cover-up for a night of indulgence.

Horace, **Roman** lyric poet and satirist, said of garlic in his Epodes, that it is "more poisonous than hemlock."

In **Shakespeare's** *Midsummer Nights Dream*, the character Bottom tells the other actors not to eat garlic or onion, for we are to utter sweet breath.

The seventeenth century **British** view of garlic was solidly negative, with expressions like, "not fit for Ladies' Palates, nor those who court them," or that eating garlic "was part of the Punishment for such as had committed the horridst Crimes." When famous poet Percy Shelley visited Italy with his friend Lord Byron, he was shocked and appalled to see his friend eating the garlic that was served at a social gathering.

Nor is garlic always seen as having entirely beneficial properties in **Western** cooking and medicine. It is widely accepted among health care professionals that, as well as killing harmful bacteria, garlic also destroys beneficial bacteria, which are essential to the proper functioning of the digestive system.

## 5 Conclusion

One may argue that so many people are eating onions and garlics everyday. However, so many people are regularly doing other things as well - smoking, drinking alcohol, etc. and are apparently functioning great. So that does not prove anything; but what I cannot deny is what I have experienced myself. Onions and Garlics have killed my research at least once and who knows - it may affect your activities as well.

## References

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