

Ginseng

Ginseng is a herb that is traditionally used in Chinese medicine, with claims of anti-tumour, anti-inflammatory, antioxidant, and anti-apoptotic properties that are thought to help improve the immune system, brain function, erectile dysfunction, and many other things. Ginseng grows naturally in both China and in parts of the United States. Because of its perceived health benefits, the plant has become very valuable in the Asian market. As such, the harvesting and export of American ginseng is strictly regulated to protect the wild plant. There are however, no restrictions on its use in supplements. In the United States, the FDA has not approved ginseng supplements.

Ginseng contains various bioactive components including tetracyclic triterpenoids (ginsenosides), polyacetylenes, polyphenolic compounds, and acidic polysaccharides of which ginsenoside is highly pharmacologically active. One of the effects of ginseng on oral health is been described as antibacterial. Ginsenoside has shown to damage bacterial cell membrane integrity of *P.gingivalis* and inhibit the growth of bacteria.

Most of the health claims from ginseng are not backed by significant data, but the plant is shown to be safe, and nontoxic. However, it has been shown that there are some herb-drug interactions present. Ginseng may antagonize blood thinner medication such as Warfain and others. Also, ginseng may induce enzyme CYP3A4 (which we now know -- this enzyme is involved in the metabolism of over 50% of clinic drugs) and change the metabolism of drugs.

In my local CVS I found only one brand of Ginseng Complex made by Nature's Bounty. I believe in other parts of the city or in Asia, there are many more available. The bottle contains 75 capsules of herbal supplement with three types of ginsenosides as active ingredients. The bottle clearly says not use during pregnancy and nursing, if you have bee allergies, and if you are under 18. It says it's not for people who take any medication it's recommended to consult with doctor. It also says the product is not intended to diagnose, treat, cure or prevent any disease and functions only as support of immune function and energy.

It was surprising to see how in the Frontline documentary “Supplements and Safety” exposed the supplement business in the USA. Multiple customer complaints of serious issues are not enough to trigger recall; only the death of a customer can make it happen quickly. After watching the documentary I was searching the similar “ingredients exposed,” lab test, for ginseng supplements. I came across The New York Times article “What’s in Those Supplements?,” where ginseng supplements are not ginseng. The lab test conducted by The New York State Attorney General’s office found no ginseng in three supplements brands purchased in Walmart, Walgreens, and GNC. Instead the test detected rice, dracaena, pine, wheat/grass and citrus. If only the supplements had FDA approval then cases like this would not have happened. As we found out during our first lecture the process of getting FDA approval is complex and expensive. As a consumer, it’s scary to think that something you buy in the pharmacy, take daily and with good intentions, can be non-beneficial and even harmful.

References:

1. What you should know about harvesting wild ginseng
<https://dailygazette.com/article/2017/10/30/what-you-should-know-about-harvesting-wild-ginseng>
2. What’s in Those Supplements? <https://well.blogs.nytimes.com/2015/02/03/sidebar-whats-in-those-supplements/>
3. Improved antimicrobial effect of ginseng extract by heat transformation
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5386132/>
4. Ginseng <https://www.mskcc.org/cancer-care/integrative-medicine/herbs/ginseng-american#references-19>