

Plants, Mushrooms and Herbal Supplements

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A Lesson from History . . .

- A young princess ate part of an apple given to her by a wicked witch
- She was found comatose and unresponsive, as if in a deep sleep

and the **antidote** is . . .

- ***Mouth to mouth ventilation was performed and she recovered fully***

[A contemporary interpretation of “love’ s first kiss”]

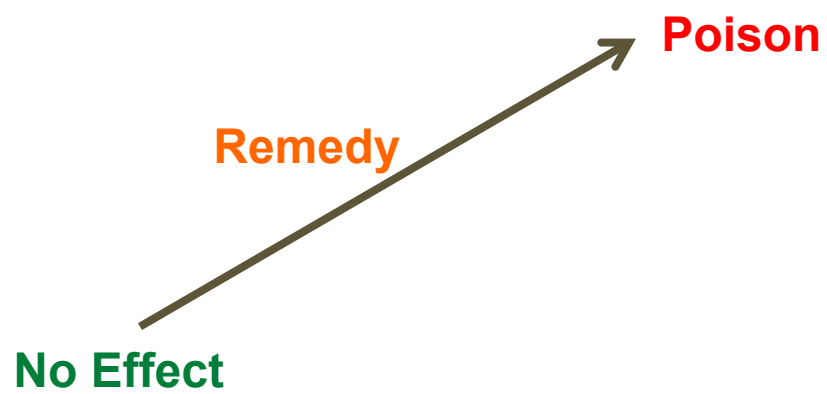


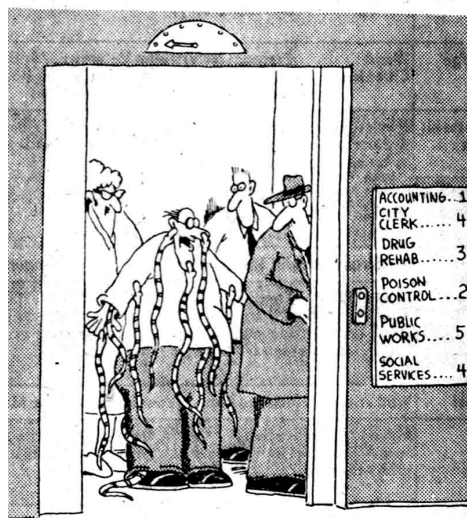
Belladonna → Atropine



http://en.wikipedia.org/wiki/Atropa_belladonna

The DOSE is KEY



THE FAR SIDE/Gary Larson

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6-4 Larson

Second floor, please

U.S. Poison Center Data

~2.5 million exposures/year*Most common exposures in children < 5:*

1. Cosmetics
2. Pain relievers
3. Household cleaning products
4. Foreign bodies
5. Skin medicines
6. Vitamins
7. Antihistamines (eg, Benadryl)
8. Cough & Cold medicines
9. Pesticides
- 10. Plants (nearly 40,000 cases – deaths rare)**



Froberg: Emerg Med Clin NA 2007; 25:375-433

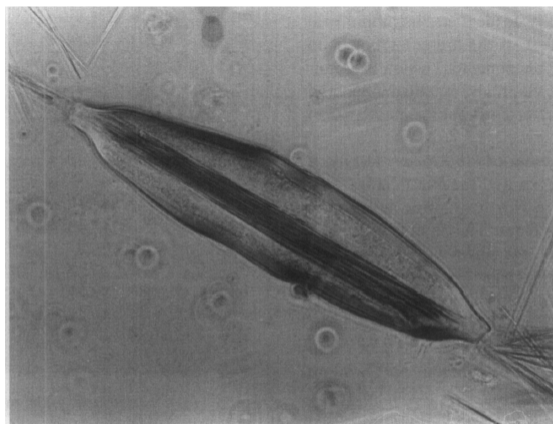


Fig. 3. Idioblast from petiole of *Dieffenbachia*. Some crystals (raphides) have been extruded from idioblast, whereas others remain within cell. (Fresh preparation; original magnification $\times 520$.) (Courtesy of Dr. H.T. Horner, Ames, Iowa)

Gardner: Oral Surg Oral Med Oral Pathol 1994; 78:631-633



Froberg: Emerg Med Clin NA 2007; 25:375-433



© William S. Justice

Poison hemlock

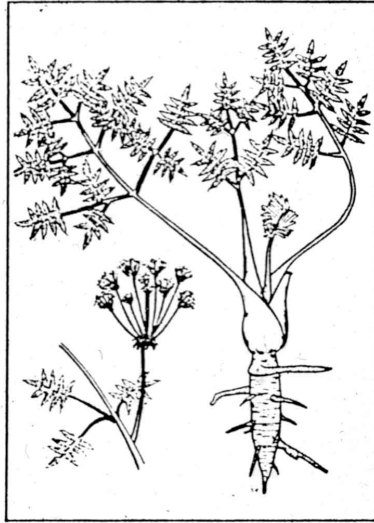


Figure 3.—*Conium maculatum*. A young poison hemlock plant with a long, unbranched taproot.

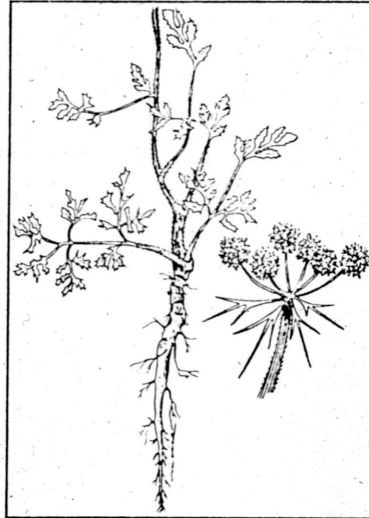


Figure 4.—*Daucus carota*. A young wild carrot plant with a long, unbranched taproot. Note resemblance of taproot to that of poison hemlock.



Oleander

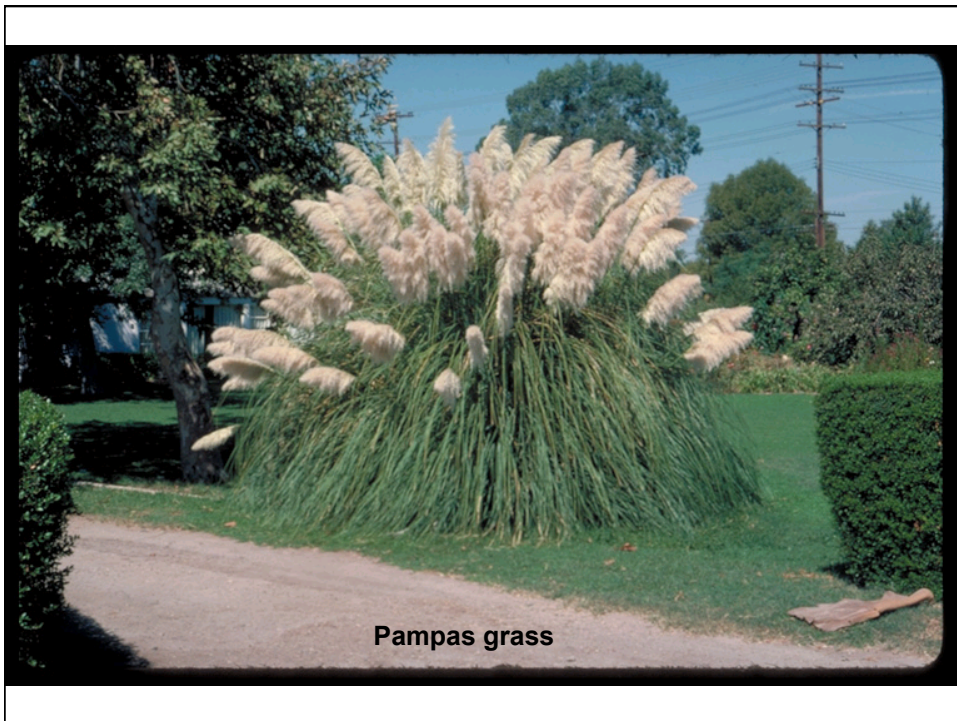
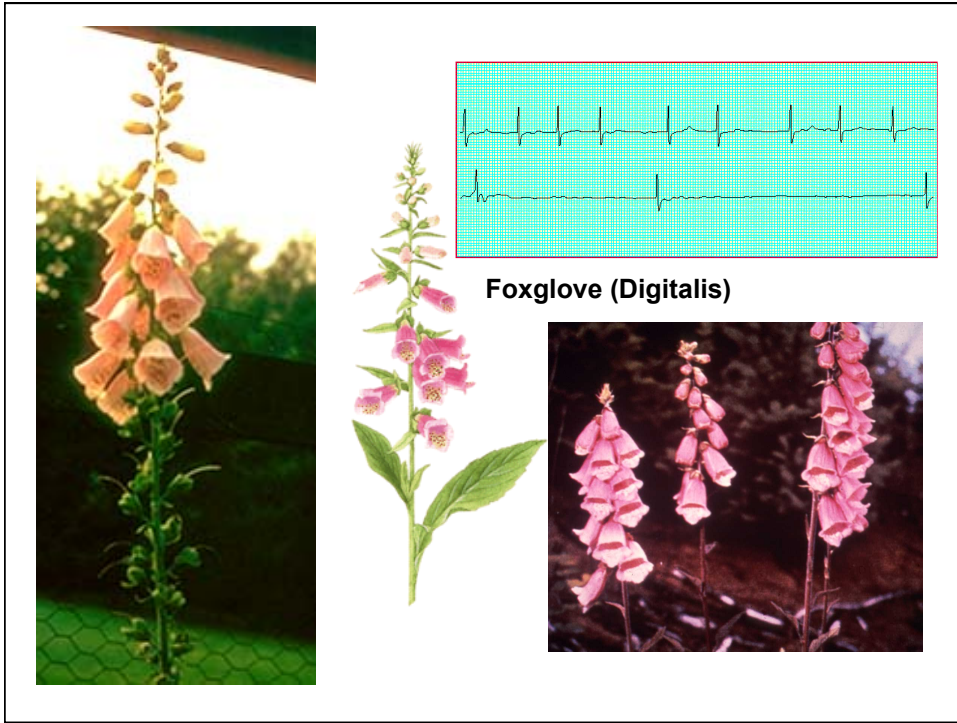




Fig. 29. *Datuna stramonium* (jimson weed).



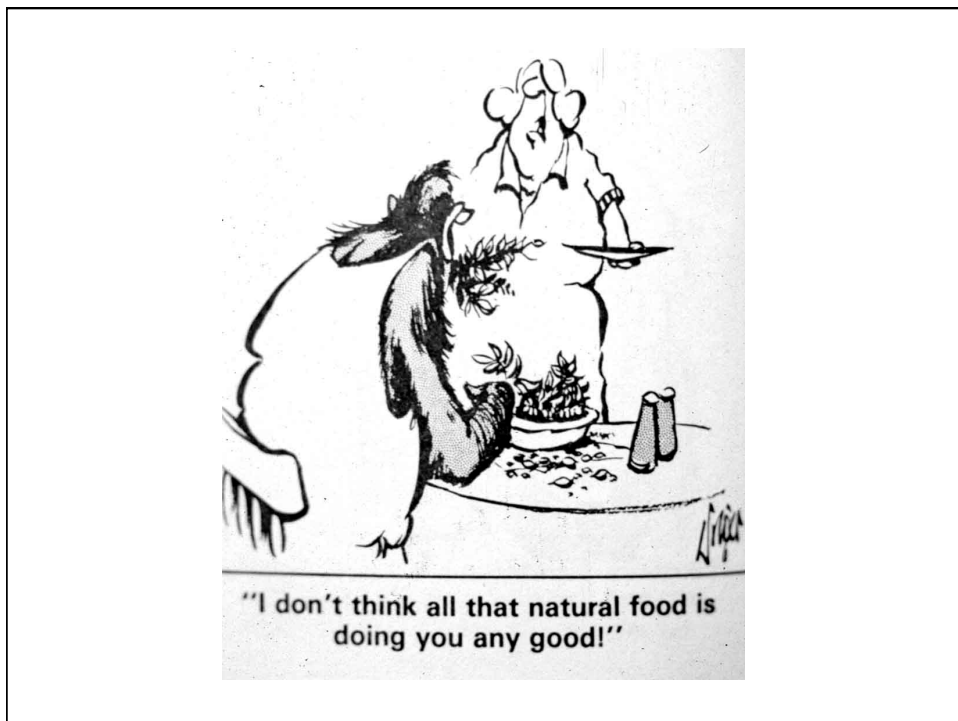
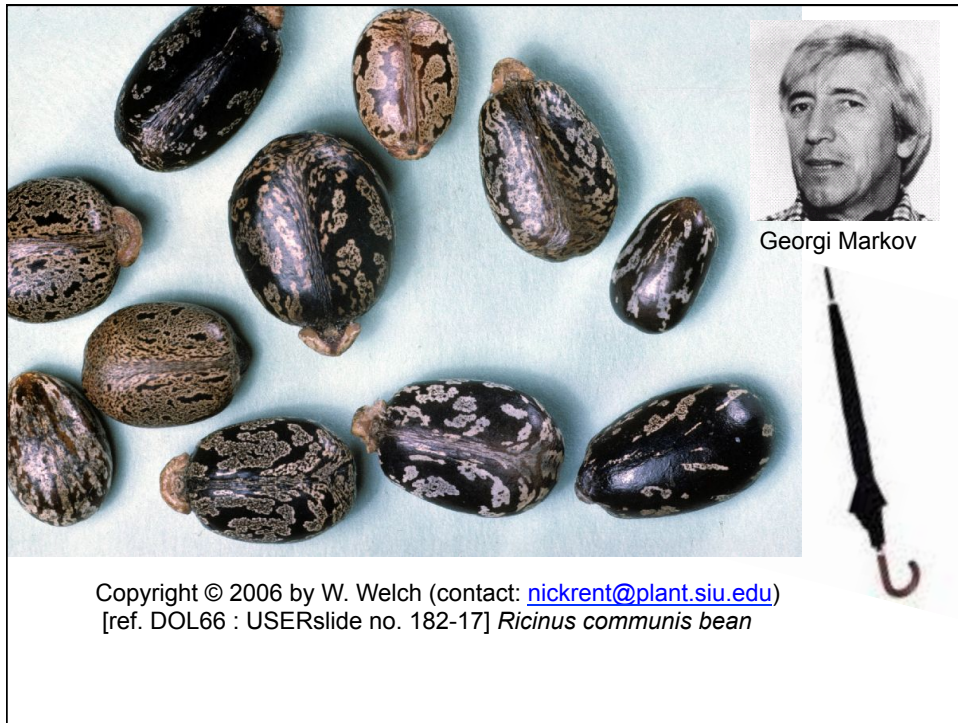


Anticholinergic syndrome

- *Mad as a hatter*
- *Blind as a bat*
- *Red as a beet*
- *Hot as a hare*
- *Dry as a bone*



http://ispb.univ-lyon1.fr/cours/botanique_old/photos_dicoty/dico%20Q%20a%20Z/Ricinus%20communis%202.jpg

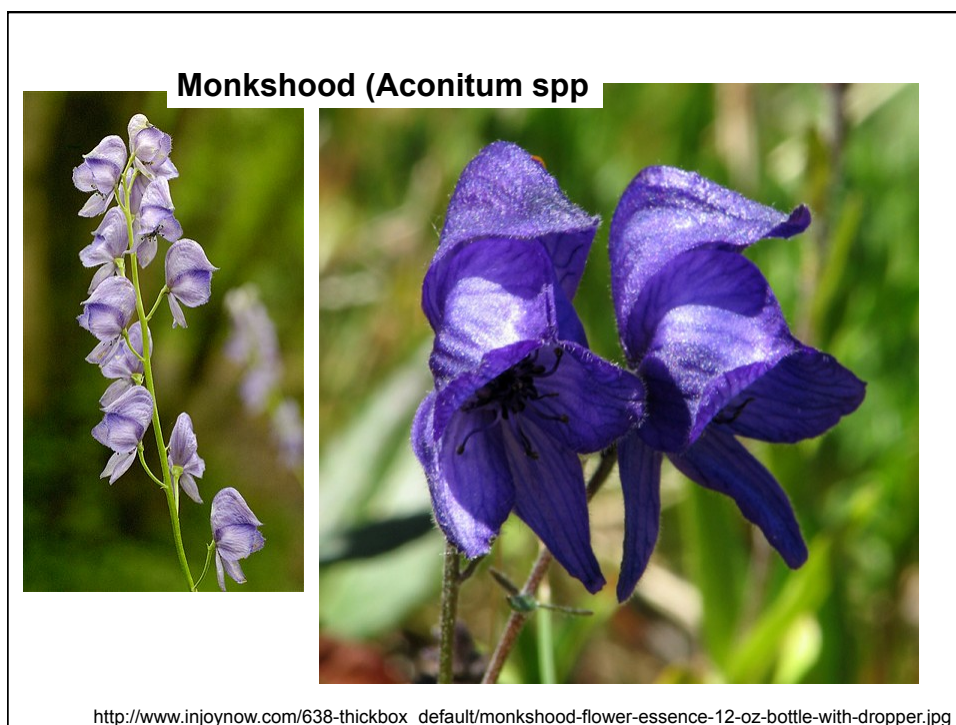


Toxic tea from Chinatown shop in SF sends 2 to hospital

By J.K. Dineen Updated 7:34 am, Saturday, March 11, 2017

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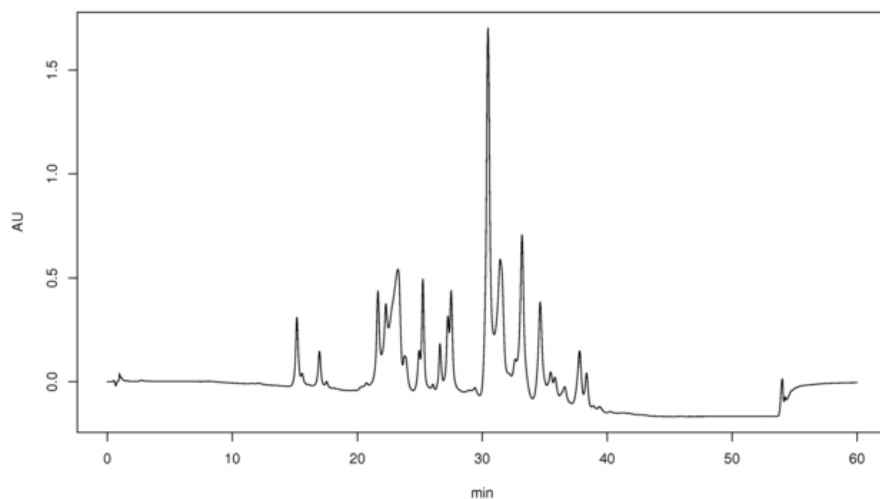


Herbals not always herbal

- 42 yo woman previously in good health
- Presented with acute hepatitis
- Had been taking an “herbal” remedy for insomnia

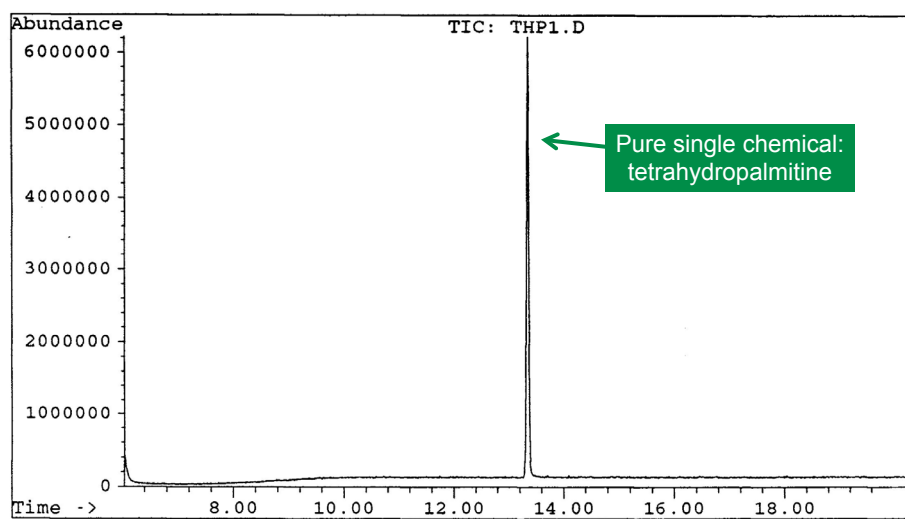


Example of HPLC Lab Analysis (perfume)



<https://www.polymersolutions.com/blog/wp-content/uploads/2014/04/perfume-chromatogram.png>

File: D:\CHEMPC\DATA\THP1.D
Operator: FB
Date Acquired: 14 Dec 93 9:28 am
Method File: THPM.M
Sample Name: 1 UL JIN BU HUAN ANODYNE EXTRACT
Misc Info:
ALS vial: 1



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Eric Schneiderman leads state attorneys general in push for 'comprehensive inquiry' into herbal supplement industry

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Secure | https://ods.od.nih.gov/About/DSHEA_Wording.aspx

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Office of Dietary Supplements

Strengthening Knowledge and Understanding of Dietary Supplements

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DIETARY SUPPLEMENT HEALTH AND EDUCATION ACT OF 1994 PUBLIC LAW 103-417 103RD CONGRESS

An Act

To amend the Federal Food, Drug, and Cosmetic Act to establish standards with respect to dietary supplements, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled

§1. Short Title; Reference; Table Of Contents.

- (a) Short Title.

This Act may be cited as the "Dietary Supplement Health and Education Act of 1994".

- (b) Reference.

Whenever in this Act an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision

DSHEA (1994) limits the FDA

- Dietary supplements do not need to be proven safe or effective before they are marketed
- Burden of proof is on the FDA before a dangerous product can be removed
- Marketers cannot claim a specific disease treatment, but they can promote “nutritional support” (eg, “supports eye health”)

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Article: Supplements Need Review Before They Can Do Damage, Not Afterward

New England Journal of Medicine examines liver cases

BY DAN FLYNN | APRIL 4, 2014

Nearly 100 severe hepatitis and liver failure illnesses — nearly half requiring hospitalization, including three transplants and one death — are raising new questions about the nation's \$32-billion-a-year supplements industry.

This comes only three months after the prestigious *Annals of Internal Medicine* found that all those vitamin and mineral supplements peddled by the industry are worthless if taken for preventing the occurrence or progression of chronic diseases.

All the recent liver damage was caused by a supplement called “OxyELITE Pro” sold by Texas-based USPlabs LLC, according to the U.S. Centers for Diseases Control and Prevention (CDC).

The supplement was recalled after it started crashing livers last May. While the U.S. Food and Drug Administration (FDA) was then able to get two substances, aegeline and 1,3-dimethylamylamine (DMAA), that



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STAT

Federal officials raise alarm on dietary pill use

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FITNESS & PERFORMANCE **DIETARY SUPPLEMENT INGR**


DMAA in Dietary Supplements

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July 16, 2013

DMAA, also known as 1,3-dimethylamylamine, methylhexanamine or geranium extract, is an ingredient found illegally in some dietary supplements and often touted as a "natural" stimulant. DMAA, especially in combination with other ingredients such as caffeine, can be a health risk to consumers. Ingestion of DMAA can elevate blood pressure and lead to cardiovascular problems ranging from shortness of breath and tightening in the chest to heart attack. Dietary supplements containing DMAA are illegal and FDA is doing everything within its authority to remove these products from the market. In 2012, FDA issued warning letters to companies notifying them products with DMAA need to be taken off the market or reformulated to remove this substance. Most companies warned are no longer distributing products with DMAA. While FDA is working to get these products off the market, consumers should not buy or use any dietary supplement product containing DMAA.

On July 2, 2013, as a result of follow-up legal action by FDA, the dietary supplement firm USPlabs voluntarily destroyed its DMAA-containing products located at its facility in Dallas, Texas. The products - USPlab's OxyElite Pro and Jack3d - are estimated to have been worth more




A TODAY

TS LIFE MONEY TECH TRAVEL OPINION 43° CROSSWORDS WASHINGTON VIDEO STOCKS APPS MORE

Dangers of 'herbal Viagra': What every man should know

Liz Szabo, USA TODAY Published 11:19 a.m. ET Oct. 15, 2015 | Updated 5:39 p.m. ET Oct. 15, 2015



(Photo: Jae C. Hong, AP)

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Basketball player Lamar Odom's collapse this week – after allegedly using cocaine and sexual supplements – has raised questions about the supplements and their safety and whether they could increase the dangers posed by illegal drugs. Odom is now on life support at a Nevada hospital.

USA TODAY's Liz Szabo talked to medical experts about these products.

Q. What is in a sexual performance supplement?

A. Although these supplements are often called "herbal Viagra" – suggesting that they contain a safer or more natural form of the little blue pill – many contain the active ingredient in real Viagra, according to the [Food and Drug Administration](#).

Odom apparently took supplements called Reload 72-hour Strong and Libimax, according to a spokesman for the legal Nevada brothel where he collapsed, who spoke to the Associated Press.

Boost Free Testosterone

One fast and easy way to boost your body's free testosterone
nugenixsamples.com

Watch: Hitlers Last Confession - Revealed After 71 Years

Did Adolf Hitler

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Medication Health Fraud

Resources for You

- [Sign Up for Email Alerts on Tainted Products Sold as Dietary Supplements](#)
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Public Notification: Rhino 9 Premium 3500 Contains Hidden Drug Ingredient

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[12-22-2016] The Food and Drug Administration (FDA) is advising consumers not to purchase or use Rhino 9 Premium 3500, a product promoted for sexual enhancement. This product was identified by FDA during an examination of international mail shipments.

FDA laboratory analysis confirmed that Rhino 9 Premium 3500 contains sildenafil, the active ingredient in the FDA-approved prescription drug Viagra, used to treat erectile dysfunction (ED). This undeclared ingredient may interact with nitrates found in some prescription drugs such as nitroglycerin and may lower blood pressure to dangerous levels. Men with diabetes, high blood pressure, high cholesterol, or heart disease often take nitrates.

Health care professionals and patients are encouraged to report adverse events or side effects related to the use of this product to the

1023

HOMEOPATHY
THERE'S NOTHING IN IT

What is Homeopathy?

Contrary to popular belief, 'homeopathy' is not the same as herbal medicine.

Homeopathy is based on three central tenets, unchanged since their invention by Samuel Hahnemann in 1796.

1.5K

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Homeopathy

What is Homeopathy?

Why Not Homeopathy?

What's The Harm?

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The Campaign

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2010: The 10:23 Event

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The Law of Succession

While transporting his remedies on a horse-drawn carriage, Hahnemann made another 'breakthrough'. He decided that the vigorous shaking of a homeopathic remedy would further increase its potency. This shaking process was named 'succussion'. When ritually preparing a homeopathic remedy, the homeopath will shake or tap the preparation at each stage of dilution, in order to 'potentize' it.

Modern homeopaths believe that this 'potentization' process allows the water to retain the 'memory' or 'vibrations' of the original substance, long after it has been diluted away to nothing. Of course, there is no good scientific evidence to suggest that water has such an ability, nor any indication of how it might be able to use this 'memory' to cure a sick patient.

Does it work?

Despite being rooted in superstition, ritual and sympathetic magick, the laws devised by Hahnemann are still in use by homeopaths today.

For Hahnemann's Laws to be correct, we would have to toss out practically everything we have learned over the past

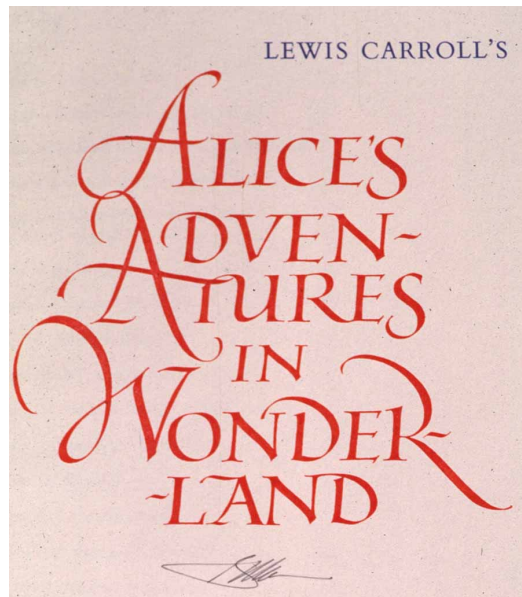
The Law of Similars

The law of similars states that whatever would cause your symptoms, will also cure those same symptoms. Thus, if you find yourself unable to sleep, taking caffeine will help; streaming eyes due to hayfever can be treated with onions, and so on. This so-called law was based upon nothing other than Hahnemann's own imagination. You don't need to have a medical degree to see the flawed reasoning in taking caffeine - a stimulant - to help you sleep; yet caffeine is, even today, prescribed by homeopaths (under the name 'coffea') as a treatment for insomnia.

The Law of Infinitesimals

Following on from his 'law of similars', Hahnemann proposed he could improve the effect of his 'like-cures-like treatments' by repeatedly diluting them in water. The more dilute the remedy, Hahnemann decided, the stronger it will become. Thus was born his 'Law of Infinitesimals'.



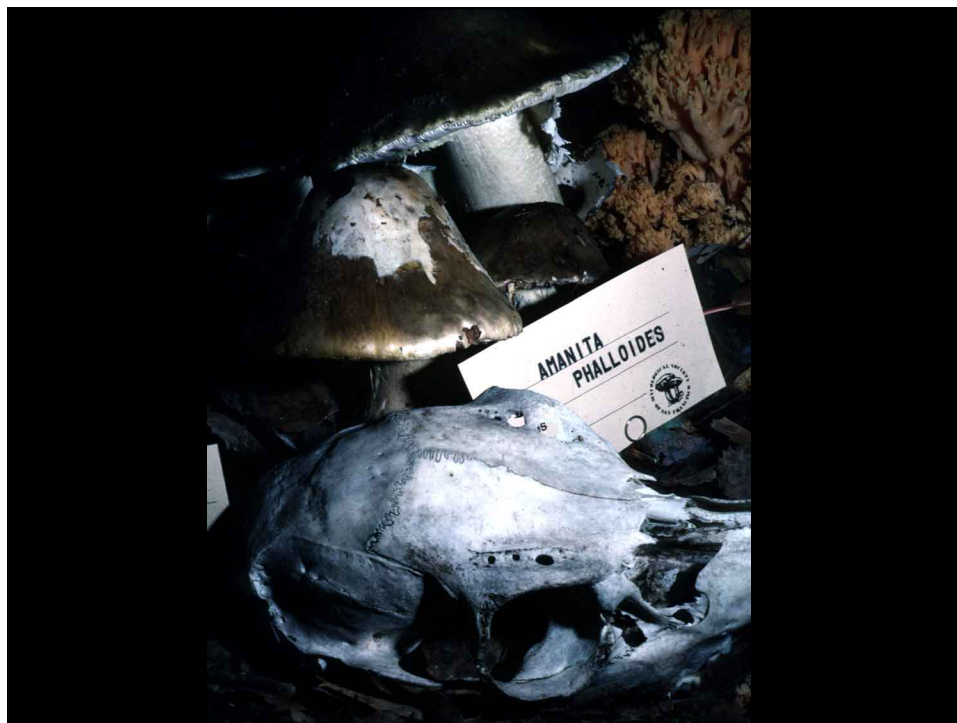


A brief review of the literature . . .



However, at last she stretched her arms round it as far as they would go, and broke off a bit of the edge with each hand.

... the Caterpillar said, “One side will make you grow taller, and the other side will make you grow shorter.”



Amanita phalloides

- The “death cap”
- Very common mushroom in Bay Area
- Reportedly very tasty
- Causes severe vomiting and diarrhea, followed by liver failure
- Death or liver transplant in ~20% of patients
- Many unproven “antidotes”



Amanita phalloides ☠
a.k.a. “DEATH CAP”


Amanita calypttrata (edible)
a.k.a. “coccola” mushroom




Courtesy of www.mykoweb.com

Courtesy of www.mykoweb.com


HOW ABOUT ONE OF THESE?




**Gyrometra esculenta ("False morel")
POISONOUS**



"True" Morel (edible)



**Gyrometra esculenta ("False morel")
POISONOUS**



Snow Morel (EDIBLE)

Poison Information Hotline

1-800-222-1222

24-hours/day

