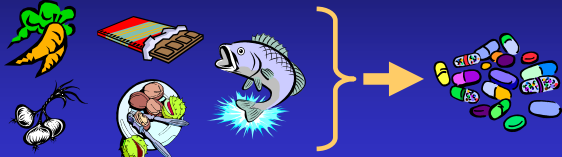


Supplement Savvy:

Swallowing Hype or Health?

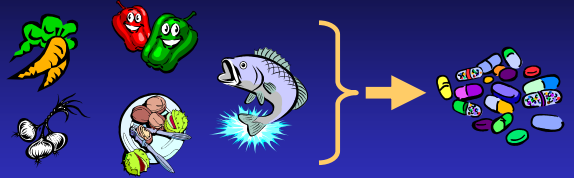


Christopher D. Gardner, PhD

Stanford University
School of Medicine

Stanford Prevention
Research Center

Tremendous Potential



Generally safe
Relatively inexpensive

Tremendous Potential

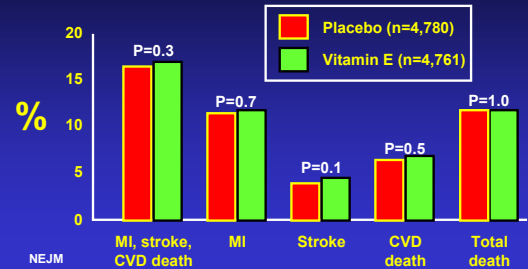
Largely unrealized

Negative / Inconsistent
findings from trials

Lack of agreement on
dose / form

H.O.P.E Study

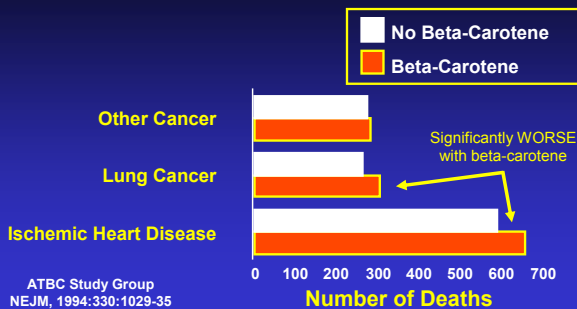
2545 women, 6996 men, CVD or diabetes and 1 risk factor, 4.5 years
400 IU Natural Vitamin E



NEJM
2000;342:154

Alpha-Tocopherol, Beta-Carotene Study

29,133 Finnish men, smokers, (5-8 year follow-up)



ATBC Study Group
NEJM, 1994;330:1029-35

DSHEA (1994)

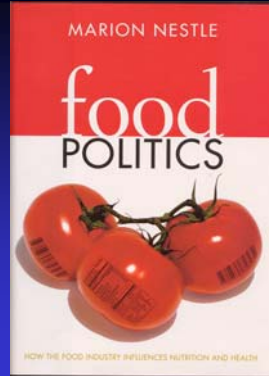
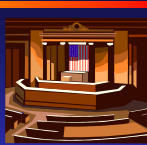
Dietary
Supplement
Health
Education
Act



DSHEA (1994)

Dietary Supplements

- Limited regulation
- Limited standardization
- Limited monitoring
- Limited substantiation of benefits or health claims



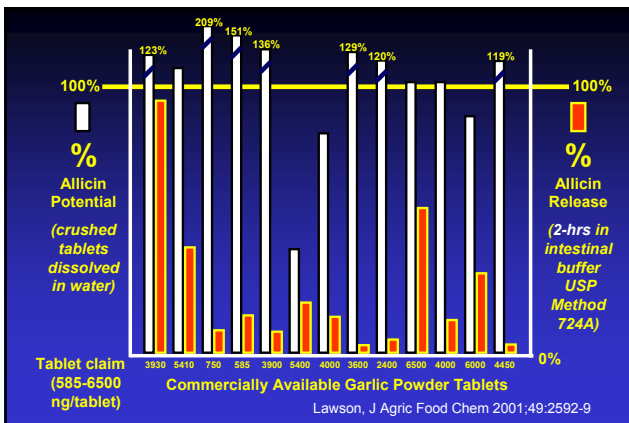
The FDA has fought for decades to regulate supplements, but have been defeated politically, and economically, by the supplement industry

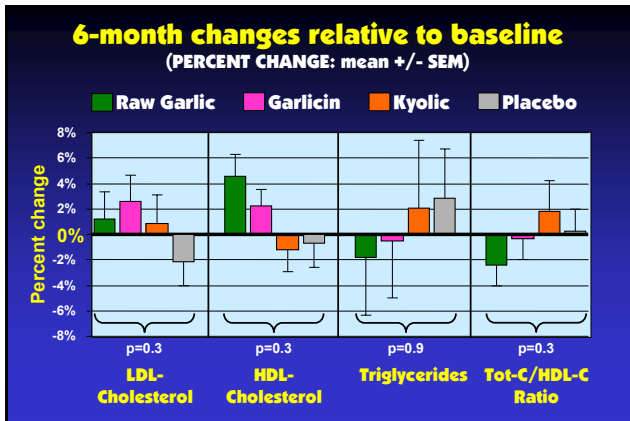
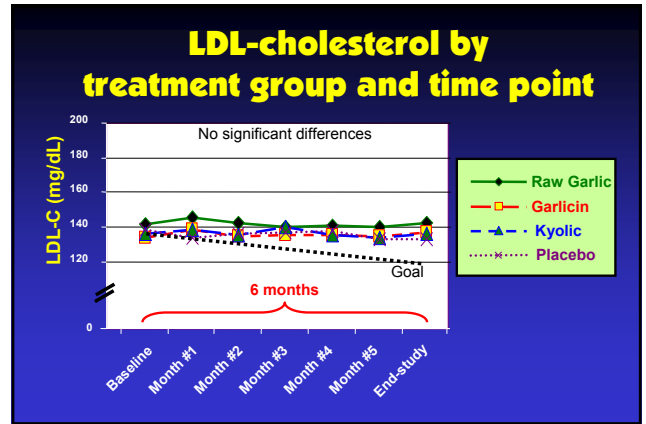
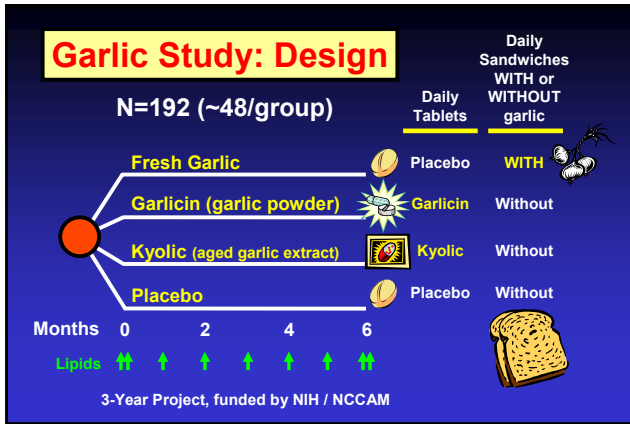


Garlic



- Kwai
- Fried garlic
- Kyolic
- Steam distilled oil
- Oil macerate
- Garlic ether extract
- Hoefels Original Garlic Oil
- Raw garlic
- Tegra
- Allicor
- Garlicin
- Garlet
- Pure-Gar





Conclusions/Implications: Garlic study

Neither raw garlic, nor herbal supplements effectively lowered LDL-cholesterol over 6 months among moderately hypercholesterolemic adults, when taken at a dose of ~1 clove/day

The major effect of garlic on your cholesterol is more likely due to the foods you flavor with garlic, than to the garlic itself.

Commercial supplements, despite claims of effectiveness, are not helpful for high cholesterol

Echinacea
Saw Palmetto
Glucosamine
Chondroitin

The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812 JULY 28, 2005 VOL. 353 NO. 4

An Evaluation of *Echinacea anjustifolia* in Experimental Rhinovirus Infections

Ronald B. Turner, M.D., Rudolf Bauer, Ph.D., Karen Woelkart, Thomas C. Hulsey, D.Sc., and J. David Gangemi, Ph.D.

CONCLUSIONS

...extracts of *E. angustifolia* root, either alone or in combination, do not have clinically significant effects on infection with a rhinovirus or on the clinical illness that results from it.

The NEW ENGLAND
JOURNAL of MEDICINE

ESTABLISHED IN 1812

FEBRUARY 9, 2006

VOL. 354 NO. 6

Saw Palmetto for Benign Prostatic Hyperplasia

Stephen Bent, M.D., Christopher Kane, M.D., Katsuto Shinohara, M.D., John Nuehaus Ph.D., Esther S. Hudes, Ph.D., M.P.H., Harley Goldberg, D.O., and Andrew L. Avins, M.D., M.P.H.

CONCLUSIONS

...saw palmetto **did not improve symptoms or objective measures** of benign prostatic hyperplasia

The NEW ENGLAND
JOURNAL of MEDICINE

ESTABLISHED IN 1812

FEBRUARY 23, 2006

VOL. 354 NO. 8

Glucosamine, Chondroitin Sulfate, and the Two in Combination for Painful Knee Osteoarthritis

Daniel O. Clegg, M.D., Domenic J. Reda, Ph.D., Crystal L. Harris, Pharm D., Marguerite Klein, M.S., James R. O'Dell, M.D., Michele M. Hooper, M.D., and H. James Williams, M.D.

CONCLUSIONS

Glucosamine and chondroitin sulfate alone or in combination **did not reduce pain effectively** in the overall group of patients with osteoarthritis of the knee. *May be effective in subgroup with moderate-to-severe knee pain.*



**Fish oil /
n-3 fatty acids**

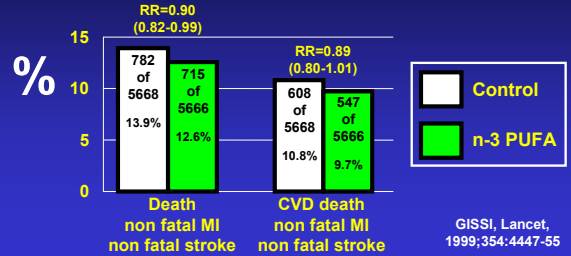


GISSI

Gruppo Italiano per lo Studio della Sopravvivenza nell'infarto miocardico

850 mg EPA:DHA (1:2) – Comparable to 100 g fatty fish (300 mg synthetic alpha tocopherol)

11,324 Women and Men, MI survivors, 3-5 year follow-up



GISSI, Lancet, 1999;354:4447-55



Does the product contain what is says it contains?

<http://www.consumerlabs.com/>

One-year subscription is \$27.00



Berkeley Wellness Letter
www.wellnessletter.com

5-HTP
Airborne
Aloe Vera Drink
Alpha-Lipoic Acid
Aripine
Avacor
Bee Pollen
Beta-Carotene
Bilberries
Black Cohosh
Blue-Green Algae
Calcium
Cat's Claw
Chaperal
Cholesterol-
Lowering Supplements
Choline
Chondroitin sulfate
Chromium
CLA
Cod Liver Oil
Coenzyme Q-10
Cold Remedies
Colestrum Revine
Coral Calcium
CoRTISlim
Creatine
DHEA
Echinacea
Enzyme
Supplements

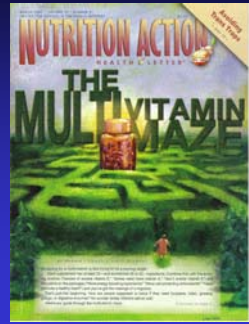
Ephedra
Evening Primrose
Oil
Exercise in a Bottle
& Fat Trapper
Eye Supplements (Ocuvite)
Feverfew
Fish Oil
Flaxseed
Focus Factor
Folic Acid
Garcinia
Garlic Pills
GABA
Gero Vita
Ginger
Ginkgo Biloba
Ginseng
Glucosamine
Glyconutrients
Goldenseal
Grape Seed Extract
Gugguloid
Hawthorn
Herbal (Diet) Teas
Homeopathic
Remedies
Hoodia
Human Growth
Hormone
Hyperzins A
Iron

Juice Plus+
Kava
Lecithin
Liver Supplements
Lysine
Lutidin
Magnesium
Mangosteel
Melatonin
Memory and Brain
Supplements
Microhedra
Milk Thistle
Minerals, Chelated
Minerals, Colloidal
MSM
Multivitamins/
Minerals
Muscle Supplements
Niacin
Noni Juice
Phosphatidylserine
Probiotics
Pycnium
Psychogenol
Red Yeast Rice
Extract
Rosa Hips
Royal Jelly
SAM-e
Sassafras
Saw Palmetto

Selenium
Senior Moment
Sex Supplements
Soy Isoflavones
St. John's Wort
StanolSterol
Supplements
Starch Blockers
Tocotrienols
Valerian
Vanadyl Sulfate
Vitamin A
Vitamin B-12
Vitamin C
Vitamin D
Vitamin E
Vitamin K
Wheat Grass
Wheat Grass
Yohimbe
Zinc
Zinc

Password for this month: ~~XXXXXX~~

Nutrition Action Health Letter
Center for Science in the Public Interest



The Good

- Iron** – for anemia
- Calcium** – for bone density (and fractures?)
- Stanol esters** – for blood cholesterol
- Folic acid** – for neural tube defects
- Fish oil** – for triglycerides and heart disease

The Benign

- Vitamin E** – for cardiovascular disease
- Garlic** – for blood lipids
- Soy Isoflavones** – for menopausal symptoms
- Vitamin C, Echinaceae** – for colds
- Ginkgo biloba** – for cognitive function
- And many more**

The Dangerous

- Ephedra** – for energy/weight loss
- Beta Carotene** – for lung cancer (among smokers)
- Aristolochic acid** – for weight loss, immune stimulation, cough therapy, GI symptoms
- Kava** – for anxiety, insomnia, depression, stress

My personal daily regimen of dietary supplements?
Chewable, chocolate flavored calcium

Ongoing Research Studies

Antioxidant Study



Omega-3 Study



UPBEAT Study

Understanding Pine Bark Extract as an Alternative Treatment



Ongoing Research Studies



Antioxidant Study



Omega-3 Study



UPBEAT Study

<http://nutrition.stanford.edu/>

<http://ppop.stanford.edu/>