

8

Facts You Should Know About Minerals

1. Inorganic minerals are mined from rock or are salts manufactured from a chemical process—they are cheap to make.
2. Human bodies are not designed to eat rock (even small particulates). Plants digest rocks and humans eat plants.
3. Inorganics have poor solubility and bioavailability—most pass through the digestive system without being absorbed.
4. Inorganic minerals usually end with “-ate” or “-ide.” For example:



| | | | |
|-------|-----------|-----------|---------|
| “ate” | ascorbate | carbonate | citrate |
| | aspartate | gluconate | sulfate |
| “ide” | chloride | iodide | |
| | disulfide | oxide | |

5. Calcium supplements are often made from calcium citrate or calcium carbonate (chalk).
6. Calcium is usually given at 1200 milligrams because only 5–7% of the inorganic calcium is ever absorbed by the body.
7. Plant-based calcium, such as that in dark leafy greens, has a higher rate of solubility and bioavailability in the body.
8. European study* found too much calcium doubles the risk of heart attack.

*British Medical Journal Online Edition, Feb 12, 2012



“Choosing a vitamin/mineral supplement can be challenging even in the best of circumstances—I know! I remember taking 50 different supplements just trying to get through the day. It’s frustrating, to say the least, especially when you learn that most of what we are taking isn’t even recognized by our body. While there are reputable companies which bring to market good products, we now know there are supplements that should absolutely be avoided. We are committed to guide you through the process so you can make sense of it all.”

Angie Law

If you need personal assistance, please contact the person who shared this brochure with you.

What’s Natural About Being Synthetic?



8 Facts You Should Know About Natural Vitamins

1. They are derived from living things like plants and are essential for normal human physiology.
2. They come in a food matrix family of factors that control the way the body utilizes them.
3. Natural vitamins have high bioavailability due to the synergistic effect of several co-factors (e.g., vitamins, minerals, enzymes). They are biologic cogs within cogs.
4. It is expensive to extract natural vitamins from plants and to standardize the amounts.
5. They are not toxic. They contain the whole vitamin not just a portion. Of the thousands of supplement companies, very few bring 100% whole, natural vitamins to market.
6. Since the FDA and USDA have no effective definition of "natural," marketing claims of "natural" can contain as much as 90% synthetic.
7. Many "natural" vitamin supplements have synthetics added to increase levels depleted by the manufacturing process.
8. Petroleum comes from nature and yet it is not natural to eat it.



How to Distinguish Natural From Synthetic

Natural Vitamins: On the container's label, a parenthesis is present listing the plant or source derived from nature.

Synthetic Vitamins: On the container's label, no source is listed or they have a chemical name.

| Vitamin | Natural | Synthetic |
|------------------|------------------------------------|--|
| A or Retinol | Fish Oils, Liver, Vegetables | Acetate, Palmitate, No Source Given |
| B1 | Nutritional Yeast | Thiamine Mononitrate, Thiamine Hydrochloride |
| B2 | Nutritional Yeast | Riboflavin |
| B6 | Nutritional Yeast | Pyridoxine Hydrochloride |
| C | Citrus, Rose Hips, Acerola Berries | Ascorbic Acid, No Source Given |
| D | Fish Oils | Irradiated Ergosterol, Calciferol |
| E | Mixed or D-alpha Tocopherols | DI-alpha Tocopherol (plain or acetate/succinate) |
| Biotin | Liver | D-biotin |
| Choline | Soy Beans (non-GMO) | Choline Chloride, Choline Bitartrate |
| Folic Acid | Nutritional Yeast, Liver | Pteroylglutamic Acid |
| Niacin | Nutritional Yeast | Niacin |
| Pantothenic Acid | Rice Bran, Nutritional Yeast | Calcium D-Pantothenate |
| Beta-carotene | Carrot, Sweet Potato | No source (almost all is from acetylene gas) |

8 Facts You Should Know About Synthetic Vitamins

1. They are man-made, occur in laboratories not nature, are derived from petroleum/coal tar and are cheap to manufacture.
2. They are isolated chemicals lacking the transporters and co-factors associated with natural vitamins.
3. They appear to be the same as natural vitamins but do not work the same way in the body.
4. They are fractionated—often offering only a piece of the complete vitamin.
5. 95% of all vitamins sold are synthetic and are often made by pharmaceutical companies.
6. Synthetic fat soluble vitamins (A, D, E, K) build up in the liver and adipose tissue causing toxicity.
7. When synthetic vitamins are baked on a cookie sheet at 350 degrees for 10-15 minutes, black petroleum distillates ooze out of them.
8. Scientific studies have implicated synthetic vitamins as increasing these risks:
 - mortality (↑ in 47 clinical trials)¹
 - death from lung cancer (↑ by 46%)²
 - death from cardiovascular disease (↑ by 26%)²
 - birth defects (↑ by 400%)³



¹ Journal of the American Medical Association
Feb 28, 2007

² New England Journal of Medicine
May 2, 1996

³ New England Journal of Medicine
Nov 23, 1995