

Gym Science, Marketing Science or Real Science?

Capsules vs. Tablets

The science of nutrition is the study of nutrients and the body's handling of them. Within the nutritional scientific community, disagreement often occurs among legitimate scientists who are interpreting legitimate scientific data. This type of disagreement among experts is certainly confusing to lay people who are trying to figure out what type of diet to eat, and which nutritional supplements to take to assist them in achieving their health goals. Obtaining accurate scientific information becomes even more difficult when the source of the data is "gym science" and "marketing science" rather than real science.

In the case of gym science and marketing science, many so called "experts" have part, but not all of their facts correct. This partial correctness often lends credibility to claims which are not, in fact, accurate.

THE MARKETING SCIENCE APPROACH TO CAPSULES VS. TABLETS

Advertisements and product literature from certain companies within the nutritional supplement industry have claimed that capsules are superior to tablets since they can breakdown immediately in the stomach, and since they do not contain any binders, fillers, excipients, etc. This is a perfect example of misleading marketing science at its best.

Capsule breakdown, nutrient destruction

It is certainly true that stomach acids tend to dissolve capsules quite rapidly. This is not necessarily an advantage, however. When capsules breakdown in the stomach, all the nutrients they contain are exposed to destruction by the same stomach acids. When these micronutrients (vitamins, minerals) are found in whole foods, the naturally occurring fibers and other macronutrients (protein, fat, carbohydrate) provide a certain degree of protection against destruction by stomach acids. Through the use of enrobing/microencapsulation technology (a process of coating micronutrient granules with food glazes, food gums, food lipoproteins, etc.) vitamins and minerals in a tablet can be protected

from acid destruction. Ordinary capsules do not offer this same type of protection.

Furthermore, nutrients are absorbed in the intestines, not the stomach. Consequently, there is no real advantage (and a significant disadvantage) to having a vitamin supplement breakdown in the stomach.

No binders = No enrobing = No protection

In addition, the capsule manufacturers' touted feature of "no binders" is also a disadvantage. Without binders, nutrients cannot be enrobed. Besides protecting nutrients from destruction by stomach acids, enrobing also protects nutrients in a tablet before you even swallow it. Here's how it works:

In the purified form of a nutritional supplement, some nutrients can chemically interact with one another in a negative or antagonistic way, resulting in the degradation, destruction, oxidation or inability to absorb one or both nutrients. The same problem does not occur with nutrients in whole foods. This is probably due to the fact that the vitamins and minerals are physically separated by proteins and other nutritional structures. Either in the case of supplements or food, the problem also does not exist once the nutrient enters the body. It seems that the body separates or otherwise protects the nutrients once they have been ingested.

The enrobing process protects the nutrients from negative interactions within the tablet, and sustains their activity until they are ingested and the body can take over. If antagonistic vitamins and minerals are not treated with this process of enrobing, then their inclusion in the same nutritional supplement is a partial waste of money for consumers who purchase the product.

Capsules are OK for certain supplements

Now that you've just read the case for why tablets are actually better than capsules for vitamin and mineral supplements, you should also know that there are certain supplements which can be used safely and effectively in capsule forms. These include any "food" type of supplement such as herbs, amino acids and fish oils. In certain formulations where there is a significant quantity of these food ingredients, specific vitamins and minerals may also be included since the "food" can help protect them from stomach acids.

What about captabs, softgels, etc.?

When you see terms like captabs and softgels, you may wonder how this differs from tablets and capsules. For clarification, see the following explanations:

CAPTABS: These are tablets which have the oblong shape of a capsule. This shape makes them easier to swallow for some people.

GELCAPS: Same as capsules. A two-piece hard gelatin capsule.

SOFTGELS: A soft gelatin capsule. Often used for oil based supplements (i.e., fish oils)