## 12 supplements you should NEVER take

As you already know, I'm a big proponent of nutritional supplements. The majority of supplement manufacturers are responsible and ethical, and their claims are, by and large, science-based.

That does not mean that I suspend my critical faculties when it comes to supplements. As an active practitioner, I've had the opportunity to field-test many highly touted health products over the years. Sometimes they don't measure up to the extravagant claims.

In a recent Intelligent Medicine podcast with Steve Mister, Executive Director of the Council for Responsible Nutrition, he coined a memorable phrase: "The supplement industry," he said "is a 'tale of two industries.'" Regrettably, there are some players who put profits before service to consumers. Here are, in my opinion, some of the worst offenders:

1) Coral Calcium: The very personification of hype, extensive advertising campaigns have pitched "Coral Calcium" as a panacea for conditions ranging from cancer to chronic fatigue syndrome. But no evidence exists for these exaggerated assertions.

There's a romantic aura about sea coral as a natural source of calcium. The truth is that it's just calcium carbonate, the cheapest and least absorbable form of calcium. (I prefer calcium citrate.) Also, unless chemically purified or made synthetically, harvested calcium is likely to contain high levels of contaminants such as lead.

Besides, as an inveterate scuba diver, I like my coral just fine where it belongs, in the ocean.

2) Vitamin D2: Otherwise known as ergocalciferol, it's the active ingredient in most prescription vitamin D (e.g., Drisdol, Calciferol). Some discount supplements contain Vitamin D2, even advertising it as "vegetarian D" since it's made from mushrooms, as opposed to D3, which comes from sheep lanolin (technically "cruelty-free," because the sheep are shorn for wool anyway).

Studies now confirm that D2 is only about 60 percent as bioavailable as D3; moreover, it's been theorized that excess D2 may cancel out D3's benefits. Vitamin D2 should not be regarded as a nutrient suitable for supplementation or fortification, yet it continues to be sold.

3) "Flush-Free" Niacin: Vitamin B3 in the form of niacin commonly causes uncomfortable flushing. The effect is transient and harmless, but it can be disconcerting.

Unscrupulous manufacturers offer consumers "flush-free" niacin, which is inositol hexanicotinate. I've tried it on patients, and it never seems to work to lower cholesterol.

The verdict: When it comes to niacin for lowering cholesterol, the adage "no pain, no gain" is applicable. To minimize the flush, try taking 500 to 1,000 mg of quercetin a half hour before your niacin; be sure to take your niacin with some food to allow it to time-release.

**4) Policosanol:** A derivative of sugar cane, policosanol was claimed by Cuban researchers to be very effective for reducing cholesterol. But it never seemed to

work on my patients.

Then, Scandinavian researchers tried to replicate the Cubans' results, and policosanol came up short.

5) Raspberry Ketones: Promoted as a "fat-burners in a bottle," raspberry ketones actually possess meager scientific bona fides.

NO scientific studies have been performed in humans. The few studies that exist were done on rodents and were small in size and published in obscure Asian journals. One test-tube study showed favorable metabolic changes when cells were exposed to raspberry ketones, but in vitro results often don't translate to real live people.

6) 3-6-9: These healthy fatty acid supplements are said to provide a balanced blend of omega-3, 6, and 9 oils. But most people have too many omega-6 fatty acids already, and omega-9 oils can best be obtained by consuming extra-virgin olive oil, which offers the additional benefit of healthy polyphenols.

The business end of these supplements are the omega-3 oils, which are usually more costly than omega-6 and 9, hence it's to the manufacturer's advantage to convince you that you need all three in a combo pill. With all that cheap omega-6 and 9 crammed into your capsules, there's little room for meaningful amounts of the high-quality EPA and DHA that you need.

Bottom line: Just take a high-quality fish oil supplement, and let your diet provide you with healthier, more economical natural sources of omega-6 and 9.

7) Potassium: Studies show that one of the problems with the modern diet is that we have an increased ratio of dietary sodium to potassium. Over-the-counter potassium pills are limited by regulation to contain no more than 99 milligrams of potassium because excess potassium can be a problem for people with poor kidney function (prescription potassium delivers more).

By comparison, a banana yields 425 mg, a baked potato with skin 925 mg. Fresh fruits and vegetables are generally rich sources of potassium, packed with healthy additional nutritional factors.

What about potassium gluconate supplements that advertise 550 mg of potassium? Actually, that's sleight of hand: potassium gluconate is a heavy molecule, of which only about 20 percent is elemental potassium—one pill delivers only 90 mg of potassium, just under the legal threshold. A mere cup of ordinary lettuce delivers more.

8) Human Growth Hormone (HGH)Enhancers: These are wrong on two counts. First, it's never been clearly established that these pricey supplements, consisting of amino acids such as L-arginine, actually increase levels of HGH.

Even if they were to do so, it's by no means clear that raising HGH in adults is beneficial. Adults receiving expensive shots that really do raise HGH obtain transient improvements in appearance and well-being, but side effects such as carpal tunnel syndrome and arthritis are common, and there's the real concern that HGH's growth-promoting effects might accelerate cancer growth.

Worse yet, researchers now suspect that unnecessary injections of this "anti-aging" elixir may curtail longevity, not extend it.

9) Cheap "One-a-Day" Supplements: Typically, to cram small amounts of all the

essential vitamins and minerals into a single small tablet requires considerable "triage." Magnesium and calcium are particularly bulky, so only small fractions of the Recommended Daily Intake make their way in.

In addition, there's a price point to match, so only the cheapest, mass-produced, synthetic raw materials are used. Then, artificial colorings, binders and excipients are added, and shiny waxes are applied to polish the pill surfaces.

Opt for a higher-quality multi that may require four or even six pills to deliver a more complete blend of high-quality, full-spectrum, natural, bioavailable nutrients.

- 10) "Intestinal Cleanse" Products: These are little more than tarted-up laxatives, often containing harmful, habit-forming ingredients such as cascara sagrada. They can cause laxative dependency, and irreversible dark pigmentation of the colon walls. Sometimes, in susceptible individuals, they reinforce bulimic cycles of binging and purging.
- 11) "Gluten-Aid" Products: "You can have your cake and eat it, too" goes the old saying, and that's what these products promise to gluten-sensitive individuals. They supposedly act by "digesting" gliadin proteins before they trigger intolerance and autoimmunity. But there's no real evidence that they mitigate even mild gluten intolerance, and there's the very real danger that they might give a false sense of security to individuals with full-blown celiac disease who might do themselves irreparable harm by consuming even tiny, occasional amounts of gluten.

If you have gluten intolerance or celiac disease, it's wishful thinking that there's an antidote to gluten products.

12) Caffeine Pills: There's plenty of caffeine in coffee or tea, and you get beneficial polyphenol compounds via nature's natural delivery systems. No question caffeine promotes alertness and athletic performance, but . . .

Putting caffeine in pills makes it too easy to spike blood pressure, trigger palpitations, stoke anxiety and override the body's sleep needs. Besides, caffeine is addictive and withdrawal is a bitch. And caffeine tempts us to overdraw our energy bank accounts. True energy is not built on a shaky foundation that is jacked-up with stimulants.

I hope you take this advice to heart and ditch these subpar supplements from your cabinets. Opt instead for supplements with a proven track record of efficacy, from a reputable source.