Ref. #Vitamin

Women's Health Men's Health Children's Health

There are a lot of misunderstandings about vitamins and supplements, and in my 40-plus years in the industry, I'm pretty sure I've heard most of them. However, there are always a few that stand out and seem to be "evergreen". I call them the "Vitamin Myths".

You've probably heard them yourself in one form or the other. They are usually the basis for many of the popular articles that circulate around the press or on the web every month. A few of the arguments are pretty common, and in this *Terry Talks Nutrition*®, we'll look at what I consider to be the Top Ten.

Hopefully, my answers here can help you refute any misinformed friends or family members who know about your interest in natural health.

So let's get started!

1. I can get all of my daily nutrients from food

Not so fast. Even if you do eat the recommended 5 to 9 servings of fruits and vegetables per day, only dine on healthy, grass-fed meats, free-range chickens and cold water fish, limit your refined carbs, and don't overdo it on sugars, alcohol and the rest; you're *still* not getting all the nutrients your body requires.

A good diet is definitely a good start. But here's the problem. Many of the foods today that *should* have a modicum of mineral content, including magnesium, silicon, manganese and such, really *don't*. The soil that we grow fruits and vegetables in has been terribly depleted, and many of the newer hybrid forms of apples, tomatoes, carrots, and the like sacrifice nutrients for the sake of easier shipping.

Aside from this is the fact that even the best intentioned of us can't always maintain vigilant control of our diets, especially if we're traveling or under a hectic schedule.

So you need to get more nutrients, in meaningful amounts, from a reliable source. At the very least, this means finding a full spectrum multivitamin and mineral formula that provides nutrients at optimal dosage levels throughout the day. This last point leads us to myth #2.

2. A once-daily multivitamin supplies all the vitamins & minerals I need

Once-daily multiples provide some nutrients, but only in one shot, and only in suboptimal amounts that can't supply the body and mind with the levels of nutrients you *really* need. Humans are designed to acquire nutrients several times a day, which is why our bodies tell us to eat 2-3 meals daily. Water soluble vitamins like vitamin C and the B family are quickly flushed from the body. So in order to get the most out of these vitamins, they have to be continuously resupplied.

While vitamins are small, minerals are huge by comparison. You cannot obtain meaningful amounts of minerals in a once per day formula. And without proper amounts of minerals, even the vitamins you *do* take in can't do their job very well. For real levels of nutrients that will make a difference to your health, look for a multiple that is designed to be taken 2-3 times daily.

3. The RDA for vitamins and minerals is all I need.

Not necessarily. The Recommended Daily Allowance is simply a minimum requirement. It is the minimal amount you need to prevent deficiency, like scurvy and rickets – not the amount you need for optimal health.

Take vitamin C, for example. To prevent scurvy, a disease caused by lack of vitamin C that causes swollen gums, tooth loss, joint pain, and other problems, you only need 30 to 60 mg of vitamin C per day. But, we also know that taken at dosages of 500 – 1000 mg, vitamin C also helps promote wound healing, boosts the immune system, and fights oxidative stress. For those reasons, you'll want to have more than the bare minimum.

Vitamin D is another example. For many years, the RDA for adults was 200 IU daily. That slowly increased to 400 IU daily, but even that may not prevent the damage from vitamin D deficiency, as current clinical surveys have shown. I think it's safe to say that we'll see a time when the minimum requirement for vitamin D is much higher – closer to what is considered the therapeutic dosage right now – 1,000 to 2,000 IU daily.

So remember, the RDA isn't there to promote optimal, vibrant health. It is simply a set of recommendations to help prevent disease states, and nothing more.

The best and most responsible formulations are made with therapeutic levels that have shown the most benefit. So while some ingredients will be higher than what you'd see in a standard multiple's RDAs, for example, they are intended to be effective, not excessive.

4. Vitamins can kill you

The media *love* to sensationalize any story that has to do with supplements and are always quick to cast natural products in a negative light. The truth, however, is that dietary supplements are *extremely* safe. It is very difficult to find anyone that has been seriously harmed solely through the use of a dietary supplement. Let me just repeat my friend Chris Kilham's wise words about supplements and safety: "Approximately 300,000 Americans die every year from the proper use of over-the-counter and prescription drugs: most years, not one single American dies from using herbs."

5. Capsules are better than tablets (or is it the other way around)?

Some people believe that capsules are *always* better than tablets. However, tablets are an excellent delivery system for many nutraceuticals, too. Unfortunately, there have been irresponsible manufacturers that have sometimes created poorly formulated tablets that did not properly break apart. This has led to people believing that the tablet delivery form is inferior to capsules and liquids.

The truth is that capsules can *also* have these problems if they are not formulated correctly, as the interior can bind together and not release its nutrients once the hard shell capsule dissolves. Liquids often have significant stability issues, both on the shelf, and with repeated exposure to oxygen. Therefore, there is no one single correct or incorrect method for delivering nutrients - different nutrients, depending on their individual properties, call for different delivery systems. Regardless of the delivery system used, what's important is the quality and expertise used in creating the product.

Tablets are well-suited to delivering larger amounts of nutrients in a smaller, easier-to-swallow size. There are also certain

nutrients that maintain better stability and retain their nutrient value better in the tablet form.

Responsible supplement manufacturers test their products for dissolution and disintegration in simulated gastric conditions, as specified by the United States Pharmacopeia (USP). These laboratory tests verify that the products release their ingredients at the proper time for optimal absorption in the body. These tests include placing the product in a fluid that simulates stomach fluid, heating it to the level of internal body heat, and creating the motion (motility) of the stomach. This testing has been verified to yield accurate results for both tablets and capsules.

6. Poor-quality supplements have fillers and binders

Some companies market their products to be superior because they do not contain "fillers and binders." These substances are more correctly called "excipients." Excipients are those ingredients in a product that do not play an active role. Excipients are used for many reasons. Some are opacifiers, which means they protect key nutrients from light exposure and degradation, or antioxidants that help to resist oxidative reactions. Others help the product resist moisture, or other stressors might reduce the product's efficacy. Some are included to make the products easier to swallow, so they do not stick in the throat. Still others assure that the tablet or capsule disintegrates after ingestion in an optimal time span. Therefore, excipients are tools to be used judiciously to create *effective* products.

That said, there *are* problematic excipients. There are excipients that are synthetic chemicals, derived from petrochemicals, etc. that responsible companies do not include in *any* of their products because they have concerns regarding these materials' impact on health. The best products are created not only to contain a specific amount of nutrients, but to ensure that these nutrients are delivered in full potency to the person ingesting them.

7. Nobody really needs supplemental iodine – it's already in table salt

Iodine is present in table salt because it is purposely *added* to it. And that was only done to prevent goiter (enlarged thyroid), not to support the thyroid's ability to synthesize much-needed hormones, or your metabolism, or to help prevent cancer. In fact, the absence of iodine in much of our lives (especially when many people are lowering their salt intake), is alarming.

In the United States, we typically consume 240 mcg per day. That's just enough to prevent goiter, but not enough for truly beneficial health effects.

Other minerals – chlorine, fluoride, and bromide – which lower iodine levels in the body by blocking iodine receptors – are increasingly consumed in foods or through environmental exposure. Chlorine is now used to purify water instead of iodine. Fluoride is almost universally found in toothpaste and drinking water. Bromines began to replace iodine in commercial baked goods in the 1980s.

Unfortunately, these minerals aren't just toxic for your thyroid – they're dangerous for your health overall. Fluoride is a problem because it blocks the ability of the thyroid gland to concentrate iodine, while bromide can cause depression, headaches, and even hallucinations.

In Japan, where seafood, kelp, and other iodine-rich foods are a regular part of the diet, the regular intake of iodine per day is about 12 mg (12,000 mcg) – about 50 times more than the average American.

So what difference does that make? Studies have noted a strong connection between thyroid abnormalities and breast cancer, and iodine intake may be a factor. Today, **one in seven** American women will develop breast cancer during her lifetime.

Compare that to thirty years ago, when iodine consumption was much higher, and one in 20 women developed breast cancer.

Women in Japan who consume high amounts of dietary iodine have much lower rates of breast cancer and thyroid problems. However, when women emigrate from Japan to the United States and begin eating a Western diet, with its fractional amount of iodine, their breast cancer and thyroid diseases increase dramatically.

As it happens, life expectancy in Japan is just over 82 years old, while in the United States it is about 78 years. The infant mortality in Japan is half of that found in the United States. And, America faces **three times** the number of deaths from breast cancer than Japan.

It doesn't have to be this way. In fact, before the advent of the synthetic drugs that are used today, iodine was one of the most beneficial and universal medicines used by physicians around the world. It was effective for everything; healing wounds and disease, destroying bacteria, viruses and pathogens, and possibly even preventing cancer. But iodine was soon forgotten in favor of new pharmaceutical drugs. Now we're seeing the result – skyrocketing cancer rates, an epidemic of thyroid dysfunction, and problems detoxifying our bodies.

So iodine is more relevant than ever. And supplemental iodine is definitely necessary. By adding even as little as 6.25 mg of iodine per day to your diet, you could see a dramatic improvement in your metabolism, ability to focus, and overall well-being. For more information about this, read my article, "Iodine – The Forgotten Medicine", at http://www.terrytalksnutrition.com/weekly-articles/2010/03-12/iodine-the-forgotten-medicine-2/

8. The supplement industry is completely unregulated

This is a common myth. Both the pharmaceutical industry and the supplement industry are regulated by the same agency, the Food & Drug Administration (FDA). They are simply regulated differently. The supplement industry is regulated as a "food", because it is a "supplement" to the diet, and legally considered a product that helps maintain health, not cure diseases. That is why you'll see explanations on supplements that read, "Helps maintain blood pressure already within normal levels", and not "lowers blood pressure."

But here's the thing: The FDA can – and does – inspect supplement manufacturers and marketers all the time. They can arrive when they want, and without warning, to verify that Good Manufacturing Processes are being followed. Reputable companies need to have very well defined standard operating procedures and high quality standards for quality, purity, and safety if they are going to stay in business. Are there poor players in the system? Sure. But they don't stay around long, and they typically don't include clinically-studied ingredients and don't cite these studies in their literature or information.

The best way to know if you're dealing with a quality manufacturer is to ask questions. Talk to the experts at your health food store, and contact the company in question.

9. Dietary supplements can never be as effective as prescription drugs

Not true. In fact, there are many herbal ingredients that are as effective as prescription drugs – without the same concerns regarding adverse effects. Consider curcumin. It's become much more popular as people look for a way to reduce pain without using common over-the-counter or prescription medicines that can harm the liver, damage the stomach lining, and put them at risk of heart attacks.

In fact, a high-absorption curcumin extract was recently judged just as effective – and without the health concerns – as the prescription rheumatoid arthritis drug, diclofenac sodium.

The 8-week study, "A Randomized, Pilot Study to Assess the Efficacy and Safety of Curcumin in Patients with Active Rheumatoid Arthritis," followed 45 subjects, randomized to three groups. All study participants had been diagnosed with rheumatoid arthritis, functional class I or II.

Group one received diclofenac sodium, 50 mg, twice daily; group two received 500 mg of high-absorption curcumin twice daily; and group three received both diclofenac sodium and high-absorption curcumin. In each curcumin group, there were no drop outs due to adverse effects, but in the diclofenac sodium group, 14% withdrew due to adverse effects.

Laboratory studies on kidney and liver function, blood sugar, and a complete blood count were performed before and after participation. There were no significant changes in these measurements in general in all the groups. One laboratory analysis adverse event was reported in the drug (diclofenac sodium) group.

In the Disease Activity Score (known as "DAS") 28 assessment, the curcumin group noted the highest impact for reducing disease symptoms, followed by those taking the combination therapy of curcumin with diclofenac sodium. Interestingly, the diclofenac sodium-alone group scored in last place.

The curcumin group also showed improvement over others in reducing C-reactive protein (CRP), a measure of chronic inflammation, and anti-streptococcal antibodies (ASO) titers, which are associated with severity of rheumatoid arthritis activity.

And that is just *one* of many examples.

10. All supplements are the same

Because there are so many generic over-the-counter medicines available, it can be tempting for people to think that all supplemental ingredients are exactly alike. Be careful here. Quality matters, and finding the right ingredients you need means reading labels carefully.

Take a look at St. John's wort, for example. Although the herb had been studied for quite some time, it exploded in popularity in the 1990s, so much so, that it looked like the marketplace might actually run out of St. John's wort.

Bear in mind that only extracts from the aerial parts of the plant are effective. However, this didn't stop some manufacturers from making powder from the roots or stems, filling capsules, and selling it as "St. John's wort."

Factually, they were being honest. It *was* St. John's wort. It just wasn't the part of the botanical that had any studied effect.

Now imagine being the person who starts using a generic supplement that doesn't really work very well. You're probably not likely to give supplements another chance, which could mean missing out on something truly life-improving.

Always seek the truth

Chances are you'll see a lot of recurring stories out there about supplements. My advice is to seek out a variety of trustworthy sources of nutrition and health news and stay current on any of the latest developments and research studies. By being informed and making reasonable decisions, you can do a lot more for your health than chasing after the latest fads or falling for questionable advice.