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## Dr. Z's Medical Report



**Ed Zimney, MD**

Health and Medical News You can Use

July 24, 2007

### Immune system boosters are a scam, part 2

Last time, I wrote about why immune system boosters are both ineffective and undesirable. Far more diseases are caused by immune system over-action than by under-action. So it's more likely you'd need to be treated with an immunosuppressant like a steroid than you would with an immune system booster (if there were such a thing!). Why then is there such an apparent demand for these products? Of course, part of it is created by incessant advertising and the alluring promise of wonderful health benefits. But these scams only work because most people simply don't understand how the immune system works and can therefore be easily misled.

So a little painless education is in order. At its most basic level, our immune system is designed to do two things: to recognize dangerous things in the environment and then to get rid of them. We want to be able to respond to foreign organisms like bacteria, viruses and parasites so they don't cause infection, or, if they do, to get rid of them as soon as possible. So we have special cells that help identify the bad actors. And if you think about it, this identification process has to be pretty exacting. First of all, we have to be able to distinguish between self and non-self so we don't attack our own tissues. This is why you'd reject an organ transplant from an unmatched donor â€" it's not you! Moreover, within the realm of foreign, you have to know what's potentially harmful and what's safe. These activities require a very sophisticated ID system. And it's this ID process that makes the immune system so complex and so hard to "boost."

Think of it like a border crossing checkpoint. Every person (organism) has to be scanned, identified and checked for danger. They have to be checked every time they try to come in, and the identification has to be exact. And if we've encountered a dangerous person (organism) before, we'd like to remember that and be able to react quickly and efficiently. This is exactly the way the immune system works. Each foreign substance gets uniquely scanned, identified, reacted to and cataloged for future reference.

The immune system reacts to the environment. It works on a case-by-case basis, reacting specifically and uniquely to each foreign substance. There's no way to enhance its activity across the board because its activity occurs step-by-step, one substance at a time.

Actually, we do know how to increase immunity, but only on a case-by-case individual basis. Every time you encounter a bad actor you "boost" your immunity to it. But only to it. So vaccination is one way we've learned to "boost" our immunity. If you become immune to chicken pox, however, that doesn't confer immunity to measles. Every organism that we want to protect against has to have its own vaccine. That's why we've developed separate vaccines for tetanus, diphtheria, whooping cough, measles, mumps, rubella, chicken pox, influenza and, most recently, against the human papilloma virus responsible for genital warts and cervical cancer. It's the way we eliminated smallpox from existence. One organism at a time. Yes, some of these vaccines are combined into one shot (e.g., DPT: diphtheria, pertussis, tetanus and MMR: measles, mumps, rubella), but within the shot each vaccine is separate and unique.

I'm hopeful that it's now a bit clearer why even the concept of an immune system booster is essentially absurd. Except at the vaccine level of detail, whereby you get

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#### About this blog

[Ed Zimney, MD](#) is a physician with more than 30 years of experience. He's held positions in drug advertising review, drug safety surveillance, medical information and marketing with several bio/pharmaceutical companies.

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immunized against a particular foreign organism, there's just no way to "boost" immunity across the board. It just doesn't work that way.

So what is it that's being sold and why is it allowed? Great questions. The various products alleged to be immune system boosters are all nutritional supplements like vitamins, minerals, herbs and the like. And yes, they do contain components required by the immune system for proper function. You do need certain vitamins and minerals for all the various parts of your body to work. But assuming you eat a balanced average American diet, you're getting everything you need from your food. And if you add in a multivitamin/mineral supplement like many people take, you're surely covered (even that is really unnecessary, but some people like extra insurance).

The problem is that nutritional supplements are basically sold as foods and as such they are available over-the-counter for sale to all without a doctor's prescription. As to why they can make the health claims they do with impunity, your guess is as good as mine. But there is one thing you should know. For all its problems, it's not the FDA that is to blame. The FDA regulates the advertising of prescription drugs *not* over-the-counter products. That advertising is regulated by the FTC, the Federal Trade Commission. And if you think it might have something to do with the FTC not being staffed with medical professionals, you're probably right! But if you think it has more to do with the activity of lobbyists working Congress on behalf of the supplement industry, you're probably getting warmer!

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[1. Aug 14 2007](#)  
[2:32 pm](#)

Great post Dr. Z. Thanks!

**Posted by Lars**

[2. Aug 21 2007](#)  
[6:32 pm](#)

you can't believe the government, senators, congressmen, FDA, Doctors, drug companys, tehgy are all making money thru drug sales. the same drugs that are killing off the population. Doctors nix vitamins, first of all because they know very little about them, and why should they, they can't get rich from vitamins but they do from DRUGS. you can't trust most doctors today because they are controlled by the big bucks just as all those listed above. the many people know what is being done to them and by whom and the day will come soon with big fines and jail.

**Posted by george orsino**

[3. Oct 29 2007](#)  
[8:21 am](#)

I totally agree. Our family has gotten sick so many times from taking over-the-counter supplements. I wish more people could read this article.

**Posted by gail mattsson**

[4. Oct 29 2007](#)

Great article. I agree 100% with you. I have MS so I do a

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