Dr. Steven Chaney : Who's Testing Your Supplements?

PCBs found in Fish Oil Supplements on the Market….

Dr. Stephen Chaney is a frequent spokesman for health and nutrition issues. As a professor of biochemistry, biophysics and nutrition at the University of North Carolina, Chapel Hill, he teaches nutrition to medical students and has conducted a cancer research project for nearly 30 years. His name is on over 80 published studies in peer-reviewed journals.

It's so tempting...

You've been getting your supplements from a company that you know and trust - a company that does clinical studies on their products and performs rigorous quality controls. You know their products are pure, safe and effective...

BUT... You're shopping in your favorite drug store or discount store and you see the same supplements for just a couple of dollars! You can't help thinking..."Wow! Here's the same stuff I've been taking for a lot less money"..."Why not save my money?"..."They must have run some quality control tests on their products"... "After all, how bad can they be?"

The answer is - pretty bad! The events of last week illustrate just how bad.

On March 2nd, 2010 the makers and sellers of fish oil supplements were sued by the Mateel Environmental Justice Foundation in California for not telling consumers that their products contained toxic levels of PCBs.

I find it amusing and somewhat scary that the FDA did not initiate this action and force the manufacturers to take their contaminated products off the shelves. Instead an environmental consumers group had to sue them for not including PCBs on the label! They sued them under California proposition 65 which requires a warning label whenever a product contains toxic ingredients.

The defendants in this lawsuit were Omega Protein, a Houston-based company that is the world's largest producer of omega-3 fish oil, and the many companies that they produced fish oil for - companies like Rite Aid, CVS, GNC, Now Health Group, Pharmavite, Solgar and Twinlab.

And those aren't the only ones. The Mateel Environmental Justice Foundation only tested 10 omega-3 supplements manufactured by Omega Protein to date and have found PCBs in all of them. They plan to continue testing and to add other companies to the lawsuit if their products are also contaminated.

Even scarier is that many of labels on these products said that the omega-3 supplement was treated to reduce or remove PCBs. As a consumer you were lead to believe that they were safe! The bottom line is that the manufacturer probably didn't test for PCBs and neither did the companies selling their omega-3 supplements to the consumer. *The alternative - that they tested the products, knew that they were contaminated with PCBs and sold them to the public anyway - is even worse.*

As if that weren't scary enough the FDA announced a massive recall of products containing textured vegetable protein manufactured by a company called Basic Food Flavors because of salmonella contamination. The problem is that there are at least 56 different kinds of consumer products containing this company's textured vegetable protein - including salad dressings, dips, packaged snacks, potato chips and soup mixes (Who knew that salad dressings contained textured vegetable protein?). That means that this recall will be huge. It will affect many foods that most people buy and use every day. *Once again, the problem is that neither the manufacturer or the*

companies using the textured vegetable protein had run the basic quality control assays that would have detected salmonella contamination.

So what can you do as a consumer? Here are my recommendations:

1) Get your supplements from an established company with a reputation for quality and integrity. I would recommend choosing a company that has been around for a number of years so that you know that their reputation is based on their track record over the years rather than just on hype.
2) Make sure that they run rigorous quality controls on their products. I would choose a company that requires pharmaceutical grade quality controls on their products.
3) Make sure that they have published clinical studies on their products that prove both safety and effectiveness. Again I would recommend choosing a company that has many published clinical studies on their products rather than just one or two.
To Your Health!

Dr. Stephen G Chaney

P.S. **Shaklee supplements are my personal recommendation because Shaklee insists on rigorous quality control tests on every one of their ingredients and on their finished products.** For example, they import ultra pure, triple distilled fish oil from England and test it for PCB contamination after they receive it. They also have published over 70 clinical studies on their products in peer-reviewed scientific journals. They are unique in the industry.

There are many studies showing the benefits of Essential Omega-3 in a diet. Americans eat an average of only 13 pounds of fish a years - compared to the 176 pounds of meat! What's more, we may not be eating the *right* kinds of fish. Sardines, anchovies, and mackerel are the fish sources richest in Omega-3s. And scientists point out that few Americans eat these EPA-rich cold-water fish several times a week. OmegaGuard capsules are an easy way to get fish oils into your diet.

The known benefits of Essential Omega-3 *** EPA, DHA, and More

- Reduces triglycerides and cholesterol
- Raises HDL (good cholesterol)
- Lowers blood pressure
- Reduces risk of blood clots
- Reduces risk of heart attack & stroke
- Reduces inflammation
- Reduces arthritis inflammation and pain
- Alleviates autoimmune diseases
- Improves eczema, colitis, arthritis, MS, psoriasis, migraines
- May prevent toxemia
- Prevents preterm deliveries
- Essential for brain and eyes of developing fetus

Arthritis: *Lancet, 1985 – showed when taking fish oil capsules* - Significantly less morning stiffness and few tender joints when taking fish oil capsules **Migraines:** *American Journal of Clinical Nutrition 1985. – showed when taking fish oil capsules* - Chronic migraine sufferers reported reduced headache intensity

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Guidelines for Evaluating Nutrition Companies

By Dr. Stephen Chaney: *Bio: Dr. Stephen G. Chaney received his B.S. degree in Chemistry from Duke University and Ph. D. degree in Biochemistry from UCLA. He is currently Professor in the Departments of Biochemistry and Nutrition at the University of North Carolina where he has taught nutrition to medical students for over twenty years. He has authored numerous scholarly papers as well as two chapters on nutrition for one of the leading biochemistry textbooks for medical students.*

Nowadays everyone seems to claim that their nutrition products are backed by substantial clinical research. Here are some guidelines for evaluating these claims and deciding which company is the best.

1) Look for **intervention clinical studies (those involving giving the supplement to real people).** Studies in test tubes, cell culture dishes, and in animals don't always predict what will happen in people. Epidemiologic or population studies (those that compare what different population groups eat, for example) are good for proposing hypotheses, **but until they are tested in a clinical trial, they are not considered as proof of effectiveness.** As for the clinical studies, if the study is measuring the delivery of a nutrient to the bloodstream, it does not need to be double blind or placebo-controlled. On the other hand, if the study is measuring a health outcome (for example, lower cholesterol or decreased pain) it should be both placebo controlled and double blind

2) Look for studies that have been **published in peer-reviewed medical journals. If** a company tells "that their scientists have shown", you have no way of evaluating the quality of their data unless it has been peer-reviewed and published in a credible journal. You also need to know that there are advertising journals as well as credible scientific journals. **An advertising journal will accept any article for a price and there is no peer review to evaluate the quality of the data. If in doubt as to whether a journal is credible, check it out on PubMed, the National Library of Medicine web site.** http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=PubMed

Finally, the same is true for studies reported in the **newspaper, in magazines, and in books,** even in those written by popular authors. Many of those articles can **best be characterized as "nutrition fiction"** and have not been peer-reviewed by scientists in the field.

3) **The studies should be done with the company's actual product in the population group it is designed for.** Many companies will say that "their product contains ingredient "X" that has been shown to". In fact, that doesn't guarantee that the original studies were valid or that the ingredient will have that effect in their product. Companies will also quote studies that were done on other company's products. Because Shaklee does more studies than anyone else, many nutrition companies quote Shaklee's clinical studies in support of their products. Of course, their products were formulated differently than Shaklee's and they don't have Shaklee's quality controls, so there is no guarantee that their product will perform as well as Shaklee's product.

4) **Look for a large number of clinical studies on a variety of different products.** Some companies have only one or two credible products and all of their clinical studies are focused on that product. They'd like you to think their other products are just as good, but in fact many are not backed by any credible research.

5) **Make sure that they are not being selective in the studies they tell you about.** For example, one major manufacturer of garlic touts two clinical studies which show that their product lowers cholesterol, but neglects to tell you about two other studies which showed that their product had no effect on cholesterol levels.

If they tell you that such studies are impractical, too expensive, or unnecessary, don't believe them. Shaklee has shown that if a company is committed to making the best products possible, such studies are essential. Shaklee has conducted over 100 clinical studies on a wide variety of their products. Those studies are all published in peer-reviewed medical journals.

Sincerely,

Steve Chaney, Ph.D. June, 2011

February 21, 2011
Dr. Chaney on - How to Do Science Right *The Shaklee Difference*

Dr. Stephen Chaney is a frequent spokesman for health and nutrition issues. As a professor of biochemistry, biophysics and nutrition at the University of North Carolina, Chapel Hill, he teaches nutrition to medical students and has conducted a cancer research project for nearly 30 years. His name is on over 80 published studies in peer-reviewed journals.

Another one of Shaklee's clinical studies has been published in a peer-reviewed scientific journal (International Journal of Food Sciences and Nutrition, DOI: 10.3109/09637486.2010.536146, 2011). (As with most scientific publications today this is the online version. The print version will appear latter this year with the more traditional page numbers)

And, like most of Shaklee's clinical studies, it was a completely independent study. It was performed by Dr. Kevin Maki and his colleagues at Provident Clinical Research in Glen Ellyn, Illinois and Kaiser Permanente in Oakland California.

The study consisted of two parts. The first part looked at Shaklee's multivitamin Vita-Lea and the second part looked at Shaklee's Vitalizer supplement. For the sake of clarity I will just focus on the Vita-Lea portion of the study today.

Let me start by saying that I think that this study is a perfect example of how a supplement company should do science. Some companies do no science of their own. They just "borrow" the science from published studies on some of the ingredients in their product. They actually have no idea whether their product works or not!

Some companies decide to market a product and then dream up some studies to try and convince people that their product works. Shaklee does the science first and uses the science to drive the marketing decisions.

To help you understand this better let me take you back a couple of years.

That was when vitamin D was really starting to hit the headlines. Studies showed that most Americans had low blood levels of vitamin D. Everyone was rushing to market with vitamin D supplements. They were "hot".

Shaklee could also have rushed a vitamin D supplement to market and made lots of money.

But, with Shaklee it's not just about the money. They are committed to only making products that people need - and they had reason to believe that people using the Shaklee products might not need a separate vitamin D supplement.

In the Landmark Study (Nutrition Journal, October 24, 2007) people who had used the Shaklee supplements for 20 years or more had adequate levels of vitamin D in their blood at an

average intake of 1,200 IU of vitamin D/day - much less than many experts were saying was needed.

In addition, people in the Shaklee group had lower levels of triglycerides and C-reactive protein and higher levels of HDL cholesterol (the good cholesterol). That means that they were at reduced risk for developing metabolic syndrome - a precursor to diabetes, cardiovascular disease and cancer. However, almost everyone in the Shaklee group in that first study had high vitamin D intake and adequate blood levels of vitamin D.

To better gauge how much vitamin D intake was required to give adequate blood levels of D, Shaklee gathered dietary intake information and took blood samples from a second group of Shaklee supplement users and partnered with Dr. Maki and his colleagues to get the same information from non-supplement users in their clinics.

In that study there was a much wider range of vitamin D intakes. Once again 1,200 IU of vitamin D seemed to be sufficient to provide adequate blood levels of D (Maki et al., J. Clin. Lipidol. 3: 289-296, 2009).

And, as the vitamin D intake increased there was a decrease in the triglycerides and an increase in HDL levels.

Thus, it is easy to see why Shaklee felt that the products they already had might be sufficient to give healthy levels of vitamin D in the blood and reduce the risk of metabolic syndrome.

However, the people in the Shaklee group were using more than just vitamin D. So, to Shaklee's credit, they commissioned the ultimate clinical trial. This trial asked the question of whether Vita-Lea alone was sufficient to raise blood levels of vitamin D to the adequate level and reduce markers of metabolic syndrome.

Dr. Maki and his colleagues recruited 60 non-Shaklee using, obese subjects from their patient population. Shaklee created two forms of Vita-Lea - one with no vitamin D (placebo) and one with 1,200 IU of vitamin D3 for this study.

So, what were the results at the end of this 8-week study?

Blood vitamin D levels were significantly increased in the group using the Vita-Lea with 1,200 IU of vitamin D, but they didn't reach optimal levels.

The reason for the discrepancy between these results and Shaklee's long term studies is not known.

Perhaps 1,200 IU of vitamin D would have been sufficient to give optimal blood levels if the subjects had taken them for a longer period of time. Perhaps some of the other nutrients that the Shaklee group was getting in the previous studies improved their vitamin D status.

However, those types of scientific questions really don't matter. Shaklee did the responsible thing.

They introduced a vitamin D3 supplement for people to use along with their other supplements.

Making a vitamin D3 supplement is not a difficult thing to do. Shaklee could have introduced it earlier, but they chose to wait until they could be sure that the vitamin D supplement was both needed and beneficial to their customers.

This is a perfect example of letting science drive marketing, rather than the other way around. This is a very important part of the Shaklee Difference.
To Your Health!
Dr. Stephen G Chaney

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April 6, 2010
Dr. Chaney on Reader's Digest Article "The Vitamin Scam"

Dr. Stephen Chaney is a frequent spokesman for health and nutrition issues. As a professor of biochemistry, biophysics and nutrition at the University of North Carolina, Chapel Hill, he teaches nutrition to medical students and has conducted a cancer research project for nearly 30 years. His name is on over 80 published studies in peer-reviewed journals.

Lots of you have asked me to comment on the recent Reader's Digest article called "The Vitamin Scam".

If you believed that article you'd think that, except for vitamin D, all supplements were worthless - and they might even kill you. The sad thing is that I've written about this many times before...yet the myths keep resurfacing. It's sort of like "Whack a Mole". You whack one and another pops up somewhere else!

But let me start at the beginning: The author is a journalist - not a dietitian, a scientist or a doctor! And the role of journalists is to sell magazines, papers or TV ads. The more controversial the article the better. If it draws attention, it sells. Some critics have said that journalists "never let the truth get in the way of a good story". But that is, perhaps, not entirely fair. It's just that journalists seldom have the time or inclination to write about the subtleties of the science or point out that there are two sides to the story.

So let me make a few comments about each of the so-called myths that were "exposed" by Readers Digest article. Since I have discussed many of these "myths" in detail in past "Tips From the Professor" articles and those articles are now archived in http://www.socialmarketingconnection.com, I will often refer you back to the original articles for more details.

Myth #1: A multivitamin can make up for a bad diet:

The author quotes one study that suggests that multivitamin use did not decrease the risk of cancer, heart disease or stroke. There are several other studies that have come to the opposite conclusion, but the author failed to mention those. However, none of the studies are definitive by themselves, so I think that it is fair to say that the jury is still out on this one. I also think that it is asking a lot of a multivitamin tablet to believe that it could significantly reduce the risk of disease by itself.

For example, in the Landmark study the multivitamin user group had the same or higher risk of disease than the non-supplement user group, It was only the Shaklee group, who were taking a more comprehensive approach to supplementation, that had a significantly decreased incidence of heart disease, stroke and diabetes.

Myth #2: Vitamin C is a cold fighter.

The author says that vitamin C is ineffective in preventing the common cold, but does decrease the severity of the common cold. That is actually correct, but the author worded the findings in such a negative light that you might think
"Why bother?".

Vitamin C is actually often fairly effective at decreasing the symptoms of the common cold. If the cold symptoms are mild enough that you hardly know you have it, that's good enough for me.

Myth #3: Vitamin pills can prevent heart disease:

The author quoted several studies in concluding that vitamin E and B vitamins were ineffective at decreasing the risk of heart disease. I've covered this topic in past articles like "Vitamin E and Heart Disease Revisited", "The Truth About Vitamin E and Heart Disease Risk in Women", "The Truth About Vitamin E and Heart Disease Risk in Men", "The Truth About B Vitamins and Heart Disease Risk" and "The Study You Never Heard About".

You can read those articles for a more detailed discussion, but the bottom line is that supplementation makes little or no difference in cardiovascular disease or deaths if you are at low risk of heart disease - but makes a significant difference if you are at high risk. I'm not sure that we really needed a lot of high powered clinical studies to prove that. It's just common sense! By the way, are you really sure that you are at low risk of heart disease? The first symptom is often sudden death!

Myth #4: Vitamin pills can protect against cancer:

Again the author would have you believe that supplements were worthless in reducing cancer risk. I've covered this previously in articles like "The Truth About B Vitamins and Breast Cancer"

Once again supplementation had little benefit in women at low risk of breast cancer, but made a big difference in women at high risk.

Myth #5: Hey, It Can't Hurt:

Here the author dredges up those old reports that claim that vitamin E, beta-carotene or folic acid might even do more harm than good. I've covered this topic in some past articles like "What Can We Believe About Vitamin E?", "Folic Acid: Friend Or Foe?" and "Folic Acid Recommendations - Who Decides?".

There are several take home points here:

- most of those reports were single studies and were outweighed by many other studies showing no detrimental effects of those supplements.

- even if we take the supposed risks at face value, they are far outweighed by the other beneficial effects of those supplements.

- finally, if there are any detrimental effects they were probably due to use of high purity individual nutrients such as alpha-tocopherol alone, beta-carotene alone or folic acid alone. In theory that can be a problem because they could interfere with the absorption of related nutrients like gamma-tocopherol or alpha-carotene - which have health benefits of their own. Those risks would not apply to supplements that contained all of the vitamin E family, all of the carotenoids or all of the B vitamins in balance.

It is unfortunate that articles like this come out from time to time because they confuse and worry those people who might really benefit from supplementation. Of course, it's not just the anti-supplement group that writes misleading articles. There are just as many articles in the magazines hyping the latest "snake-oil" remedies. The truth, as always, is hard to find.

To Your Health! *Dr. Stephen G Chaney*

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FROM RICK MEDORA, Chiropractor, Kingston, ON

"The most trusted name in clinical science is SHAKLEE."

A Pharmacist tells why he takes SHAKLEE ~ and only SHAKLEE!

I thought you might be interested in this e-mail. I asked my friend, Harry Shurley, a pharmacist, why he took SHAKLEE vitamins when he could get others, as samples, for free. Here is his reply.....

Why do I take SHAKLEE vitamins? From a pharmacist's view you have to look at the clinical research that is done by SHAKLEE.

Mrs. Lindley and I are writing a book on prenatal nutrition -- not quite complete -- and we requested clinical studies from the makers of prenatal vitamins and NO major company (except SHAKLEE) could provide us with any studies!

Also, as you know, the SHAKLEE vitamins are natural as opposed to the synthetic prenatal vitamins available in drug stores. The makers of those prenatal vitamins stress the amount of folic acid in them, which is 1 mg. Because they have 1 mg of folic acid they have to be on prescription because folic acid can mask pernicious anemia, but if you look at the prenatal vitamins they have very few of the other vitamins and most leave out biotin completely.

It is funny that you ask me this question because a few weeks ago I had a nurse call in for some prenatal vitamins and I asked her what was the best prenatal vitamin and she said, I don't know. So I asked her how did they determine what brand of vitamin to give to the patients and she said, Whatever they can tolerate.

There are so many reasons why I take SHAKLEE over the vitamins I could get from pharmaceutical companies. I don' t have time to explain all, but the main reason is because the SHAKLEE vitamins produce results!

Artificial Foods Are Not the Nutritional

Equivalent of the Real Foods They Replace

However--the labels often claim they are.

The picture below shows two rats from the same litter 6 weeks after birth.

The one on the left was raised on nothing but eggs from birth

while the one on the right was raised on nothing but Eggbeaters.

Do they look like they were raised on nutritionally equivalent foods?

Thanks to Dr. Stephen Chaney