**Title**: What are Some Major Concerns with Recommending Dietary Supplements?

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**Abstract**: How sure are you that your dietary supplement is providing you benefit? Americans spend more than $28 billion on dietary supplements annually. More and more people are becoming focused on maintaining and improving their health and that has caused the dietary supplement industry to explode in recent years. The number of different dietary supplements sold in the United States increased from approximately 4,000 in 1994 to more than 90,000 in 2014. A review of current literature was performed and found that many of these supplements can provide a number of different benefits from reduced risk of death, cancer, infection, and myocardial infarction as well as improved cognitive function, psychological well-being and physical performance in athletes while saving billions of health care dollars spent on preventable diseases. The problem is that not all dietary supplements are equal and with the industry growing and no changes to regulation or oversight, some issues have arisen. The Dietary Supplement Health and Education Act of 1994 (DSHEA) was passed by the Food and Drug Administration to put specific guidelines for dietary supplement manufacturing and safety into place. The responsibility is placed solely on the manufacturer to comply with good manufacturing practices and submit safety data for new substances. The problems are that dietary supplements are not required to go through pre-market testing to prove benefit or identify adverse effects and drug interactions. Also, the products only have to be “generally recognized as safe” and testing performed by the FDA is so limited that banned substances are able to make it onto the market unrecognized. Because of this, companies are coming up with ways to create products at high market value while deceiving consumers and maximizing profits by not being transparent. Some of these specific techniques include using recalled pharmaceutical ingredients, impure active ingredients, the “kitchen sink” formulation, proprietary blends, and protein spiking. A study found that chemical analysis of 32 fish oil supplements in New Zealand found that only 3 contained the amount of active ingredients on the label and 69% had 67% or less. Five different sports supplement companies were recently named in lawsuits because their protein powder products didn’t have the amounts of actual protein listed on the label, with some having less than 50%. Although there are many concerns with dietary supplements, it is possible to identify quality products. The Council for Responsible Nutrition is a great resource for education on this topic. Physician Select Vitamins is a company run by physicians who use scientific data to formulate their supplements and they have a program that allows them, health care providers and patients to communicate. Companies can electively put their products through special third party tests to certify there is no presence of banned substances and these products can be easily identified by special labeling. The choice to take a dietary supplement should stem from discussion between patient and provider and ultimately requires more education across the board.