This issue of Healthy Camels, written by Drs. Eileen De Bauche and Gil Steiner, is dedicated to vitamin supplementation. In this issue we will focus on the positives and negatives associated with the use of non-prescribed vitamin supplements and will offer suggestions for safe use of over-the-counter vitamin products.

**Over-the-counter vitamin use: the good, the bad, and the unnecessary**

Have you ever stopped to look at all the products available on the vitamin aisle of a drug store or pharmacy? The amount of items available to choose from seems overwhelming, and ordinary consumers often report that there does not seem to be much distinction between the products or guidance as to which product to select. Despite the lack of information available to consumers, many Americans tend to self-treat their health conditions with seemingly “safe” vitamins and other over-the-counter products. In fact, according to the National Institute of Health Office of Dietary Supplements, Americans spent approximately $8.6 billion on vitamin and mineral products in 2004. With the rising cost of health care and prescription drugs, it is no wonder that many people are taking matters into their own hands. Below is a quick reference for important information on the most commonly used vitamins and offers some discussion of the pros and cons of using over-the-counter vitamin supplements.

**Overview:**

Vitamins are nutrients that that cannot be produced by the human body but are necessary for normal bodily functions. Vitamins are usually divided into two categories, fat soluble and water soluble. Examples of fat soluble vitamins include vitamins A, D, E, and K. If large amounts of these vitamins are ingested, a person’s body can store the excess amount in body tissues. On the other hand water soluble vitamins, such as vitamins B and C, are not stored in the body regardless of the amount ingested. Any excess amount of water soluble vitamin consumed will not be used and will be excreted.

To help consumers and health care professionals understand how much of each vitamin a person should consume every day, many multivitamins have a Recommended Daily Allowance (RDA). The RDA is defined as the “quantities of nutrients in the diet that are required to maintain good health.” Another value that is helpful to consumers is the percent daily value (%DV). This is a value that is commonly listed on the bottle of most vitamin products. It informs users how much of their daily intake of a vitamin is supplied by the serving size of the supplement. For example, a bottle of Nature Made® 500mg tablets of vitamin C lists one tablet as supplying the user with 833% of his or her percent daily value of vitamin C. Therefore, if the
consumer takes one of these tablets daily and consumes no more vitamin C for the rest of the day, he or she would still have taken in more than eight times the necessary amount of vitamin C necessary to maintain good health.

Understanding the labeling on the back of vitamin products can help a person select a product that best meets their needs. It is recommended that a person always talk to his or her doctor or pharmacist before beginning to take a new vitamin supplement. This is because there are always risks and benefits associated with putting these products into the body, regardless of whether it is a prescription or over-the-counter product. While some of these products are in fact “safe,” they can still be harmful at high doses or to people with particular health conditions. Taking vitamins without consulting with a health care professional can have good and bad results, and some supplements or supplement doses are unnecessary.

The Good:

- People with dietary limitations or deficiencies benefit the most from vitamin supplement use. Vegans, vegetarians, and those suffering from alcoholism or medical conditions that prevent proper absorption of nutrients will likely need vitamins to meet the RDA of many vitamins.²
- Vitamin products can be purchased for prices that are often less expensive than similar prescription products. However, it is still recommended that a physician or pharmacist suggest a dose of a particular vitamin or mineral to ensure the product is taken properly.

The Bad:

- It has been said that Americans have the most expensive urine in the world. The thought behind this strange statement is that Americans spend a lot of money each year on over-the-counter vitamin supplements, and only a small proportion of these supplements is actually absorbed and used by the body.
- Many people think taking a multivitamin supplement is a replacement for healthy nutrition. Eating a balanced diet offers a person many more benefits than eating poorly while taking a supplement. If a person eats a well balanced diet full of fruits and vegetables and lean meats, they likely don’t need a multivitamin supplement because they are meeting most vitamin RDAs.
- Many vitamins can interfere with the absorption and action of some prescription drugs. Just because the vitamin is available over-the-counter does not mean that it is safe for everyone.

The Unnecessary:

- Taking “mega doses” of vitamins in amounts over the recommended daily allowance does not necessarily offer any benefits over taking a dose within these guidelines. For example, taking high doses of vitamin C and vitamin E have both been linked to negative health effects.³ In fact, many vitamins and minerals have been linked to side effects when taken in high doses. Choose a product that offers the vitamin at a percent daily value as close to 100% as possible. Anything more than 100% is likely unnecessary and may be harmful.
- Spending extra money on a “natural” vitamin supplement may be a waste of money. A person’s body cannot tell the difference between a vitamin extracted from nature and a vitamin that is synthetically created.³ Go ahead and purchase the product that is less expensive as it will work just as well as the expensive, all natural product.
- Always select a vitamin, mineral, or herbal product that has been quality tested. This can be verified by locating an emblem on the bottle that attests to the fact that the product has been made under good
manufacturing practices and contains the proper amounts of all ingredients listed. An example of quality testing would be a circular stamp on the label stating a product has been “USP verified.”