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The Supplement Story
Part 1: What’s it all about?

Supplements are pills, powders, and liquids that are meant to add value to someone’s diet. Supplements are not meant to treat, cure, or help manage any disease. They include vitamins, minerals, protein powders, herbs, amino acids (building blocks of protein), and things like fish oil. Supplements can be found at drug stores, supermarkets, and specialty stores.

Supplements are regulated (monitored or “policed”) by the Food and Drug Administration (FDA), but in a different way than medicines. Medicines go through lots of testing before the FDA will allow them to be sold to consumers. The makers of medicines must show that the medicine is safe and effective (does what it is supposed to do). For example, a blood pressure lowering medicine must be shown to lower blood pressure and be safe for most people when taken the way it is prescribed. Again, FDA does not allow medicines to be sold until the companies can prove they are safe and do what they are supposed to do.

The Dietary Supplement Health and Education Act (DSHEA) of 1994 states that the FDA has the power to regulate supplements. But, supplements are regulated in a different way than medicines. The makers of supplements do test their products to show they are safe and have the ingredients they are supposed to. But, they don’t have to share the results of this testing with the FDA before they can sell their products. Instead, supplements are considered “safe” until people report problems with a supplement, the FDA investigates the supplement maker.

Supplements should follow the FDA’s Current Good Manufacturing Practices (CGMP). CGMPs are a set of rules for making a high quality and safe product. They should also have a Supplement Facts panel. This panel lists active ingredients (the ones that make the supplement do what they say they will) and other ingredients. The panel also shows the amount the company recommends you take (suggested serving size). But remember, supplement companies don’t have to prove anything about their products before they are sold. At times, supplements have been found to contain ingredients not listed on the label. For example, lead and other prescription medicines have been found in supplements.

Remember, supplements are not approved to treat, diagnose, or cure any diseases. They are not “natural medicines” and at times, some have been illegally contaminated with medicines. Supplements can also react with prescribed medicines. For people with diabetes, this could mean that a supplement could keep your prescribed medicine from working the way it should. This might mean you blood sugar goes too high. Or, something in the supplement could react with your blood sugar lowering medicine and then your blood sugar dips too low.

Continued on next page.
So, you can see how supplements can be dangerous. Some supplements, like a multivitamin or a mineral, like calcium, might be recommended by your doctor. Sometimes you need supplements because of your age, your diet, or a medical condition. Many vitamins and minerals and a few other supplements have a history of safe use. Your doctor will be able to help you choose the safest options. Only take a supplement if your doctor tells you too, but always remember to talk to your doctor before you start or stop taking any supplements or change the amount you take. Also, remember to list any supplements you are taking when you are asked about medicines you take. Stay tuned for the next part in The Supplement Story where we discuss specific supplements marketed to people with diabetes.

References:


The Supplement Story

Part 2: Supplements and Diabetes

There are several supplements that are currently marketed as supporting healthy blood sugar or treating diabetes. Claiming that a supplement “treats diabetes” is illegal because supplements are not supposed to be marketed as preventing, treating, or curing a disease. Saying that a supplement helps support healthy blood sugar is OK, because all people with and without diabetes have changes in blood sugar every day.

Recently, a group of scientists decided to look at studies on cinnamon and diabetes. They found that the studies were all very different from each other. Studies differed in the amount of cinnamon that people took, when they took it, and how they took it (with or without food, in a pill, mixed into a food). Also, some studies looked at fasting blood sugar. Some looked at A1C. So, as you can see, all the studies were very different.

The scientists determined that at this point, these studies don’t support using cinnamon to support healthy blood sugar. This means you should not take cinnamon to help with diabetes, unless your doctor tells you to do so.

There are many other supplements that are marketed to people with diabetes. You may have seen advertisements on TV or the internet that claim a supplement can help people with diabetes. The table on the next page shows some examples of supplements that have been marketed to people with diabetes. The table tells you the supplement, what the science says about whether it works or not, and some of the side effects or problems with taking these supplements. As you can see, none of them should be considered safe to use, and they probably won’t work. We need more scientific studies before we can say for sure if any of these supplements should be taken for diabetes. Until then, watch your diet, be active, and take your medicines for proven ways to manage diabetes! And stick around for our final article about what you can do to protect yourself if you do take a supplement.

Continued on next page
<table>
<thead>
<tr>
<th>Supplement Name</th>
<th>Diabetes Verdict (Thumbs up means may work, Thumbs down means does not work)</th>
<th>Side Effects and Other Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cinnamon</td>
<td><img src="image" alt="Thumbs Down" /> (2)</td>
<td>No known side effects</td>
</tr>
<tr>
<td>Alpha-lipoic acid (ALA) or thioctic acid</td>
<td><img src="image" alt="Thumbs Down" /> (3)</td>
<td>Can cause GI (stomach, intestines) upset⁴</td>
</tr>
<tr>
<td>Aloe Vera</td>
<td><img src="image" alt="Thumbs Down" /> (5)</td>
<td>Stomach cramps and diarrhea, medication interactions⁵</td>
</tr>
<tr>
<td>(Asian) Ginseng</td>
<td><img src="image" alt="Thumbs Down" /> (6)</td>
<td>Not well studied, could have unknown risks⁶</td>
</tr>
<tr>
<td>Bitter Melon or Momordica Charantria</td>
<td><img src="image" alt="Thumbs Down" /> (7)</td>
<td>Not well studied, could have unknown risks⁶</td>
</tr>
<tr>
<td>Chromium</td>
<td><img src="image" alt="Thumbs Down" /> (8)</td>
<td>Stomach pain, bloating, kidney damage, muscle problems, skin reactions; Medication Interactions⁴</td>
</tr>
<tr>
<td>Fenugreek</td>
<td><img src="image" alt="Thumbs Down" /> (7)</td>
<td>May be unsafe for those with estrogen-sensitive cancers⁹</td>
</tr>
<tr>
<td>Magnesium</td>
<td><img src="image" alt="Thumbs Down" /> (10)</td>
<td>Large doses may cause diarrhea and abdominal pain⁸</td>
</tr>
<tr>
<td>Omega-3s</td>
<td><img src="image" alt="Thumbs Down" /> (11)</td>
<td>Minor GI upset</td>
</tr>
</tbody>
</table>

Due to space limits, references for this article provided upon request.
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The Supplement Story
Part 3: Be Supplement Safe!

In the last two articles, we discussed what supplements are and some specific supplements marketed toward people with diabetes. Now, we will discuss what you can do to help protect yourself, and if you do take a supplement, what you can do to make sure you are as safe as possible.

When it comes to food, we say just read the label. But we have learned when it comes to supplements, sometimes what is on the label isn’t what is in the bottle. So, there are organizations that scientifically test supplements. These organizations report results to the public. There are also organizations that offer “seals of approval” for supplements that they test. These seals mean that the products they tested have what the label says they do and that they do not have anything else in them, like lead or prescription or over-the-counter medicines. These tests do NOT mean the supplements are safe or effective (do what they are supposed to do). Some organizations that do this type of testing are ConsumerLab.com, NSF International, and United States Pharmacopeial Convention (USP). If your doctor recommends you take a supplement, like a multivitamin or mineral, ask if there is a certain brand or if he/she wants you to pick one with a seal from one of the organizations mentioned above.

The Federal Drug Administration (FDA) and the Federal Trade Commission (FTC) also share information about supplements. The FDA has consumer warnings and updates on their websites. The FTC has information on false advertising of supplements on their website. Their websites are listed below. You can look to see if a supplement has been talked about on one of these sites.

Ask your doctor where you should purchase a supplement. Online ordering can be tricky. Be wary of anything that sounds too good to be true. A supplement being sold for much less than its competitors is a red flag! And remember, a supplement or natural foods store doesn’t necessarily sell better products than a grocery or drug store.

Two of the best things you can do for your safety are to, 1) tell your doctor if you are taking a supplement now, and 2) ask your doctor before you buy or take any supplements. Your doctor will know if the supplement interacts with prescription medicines, foods, or other supplements you take. Lastly, any time you start, stop, or change the dose of a supplement, monitor your blood sugar closely. And whatever you do, don’t take a supplement instead of your prescription medicine! If you have more questions, ask your doctor at your next appointment. In the meantime, stay tuned for more helpful tips from Diabetes Life Lines.

For more information on supplements:

- The National Institutes of Health Office of Dietary Supplements (ods.od.nih.gov)
- The Food and Drug Administration (FDA.gov)
Florida Cucumber Salad

Ingredients:

- 2 cucumbers, peeled and seeded
- Red onion, thinly chopped
- 3 tablespoons green onions, chopped
- 1 tomato, sliced thin
- 2 tablespoons raspberry vinegar
- 2 tablespoons olive oil
- Pepper to taste

Directions:

Chop and slice vegetables and combine in bowl. Drizzle with raspberry vinegar and olive oil. Add pepper to taste.

Makes 4 Servings

Nutrition per serving:
Calories: 98, Carbohydrate: 8 grams, Fat: 7 grams, Protein: 2 grams, Sodium: 11 milligrams, Fiber: 2 grams, Cholesterol: 0 milligrams

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Dear Friend,

*Diabetes Life Lines* is a bi-monthly publication sent to you by your local county Extension agent.

It is written by an Extension Nutrition and Health Specialist and other health professionals from the University of Georgia. This newsletter brings you the latest information on diabetes self-management, healthy recipes and news about important diabetes-related events.

If you would like more information, please contact your local county Extension Office.

Yours truly,

County Extension Agent