Reactive Hypoglycemia

I. Definition
   a. Reactive hypoglycemia (also called functional hypoglycemia) is a condition in which a patient feels low blood sugar symptoms but has a blood sugar reading within the normal range. The symptoms then resolve with eating or drinking.

II. Symptoms of hypoglycemia
   a. Symptoms of low blood sugar include hunger, irritability, sweating, nausea, shaking, heart racing, dizziness or lightheadedness. If hypoglycemia is severe, a person may have a seizure or pass out.

III. How does our body respond to low blood sugar?
   a. Our brain is dependent on sugar for energy. The human body wants and tries to keep the blood sugar normal so the brain and other vital organs can have enough energy. When the blood sugar drops, our body makes hormones such as cortisol, growth hormone, glucagon, and epinephrine to help keep the blood sugar in a good range.

IV. Why does functional hypoglycemia occur?
   a. Functional hypoglycemia occurs after a person eats. The blood sugar initially increases and then decreases 2-4 hours after eating. The increase in the blood sugar depends on what is eaten. The more carbohydrates or sugar in a meal, the higher the blood sugar goes. Also, foods and drinks that are a pure sugar (like soda, non-chocolate candy, or popsicles) cause a faster increase in blood sugar because there is no fat or protein to slow down the absorption of the carbohydrates at the stomach. Once the body starts releasing insulin into the blood, the blood sugar decreases quickly. Rapid decline in blood sugar can cause the symptoms of hypoglycemia listed above.

V. Diagnosis/Treatment
   a. Diagnosing reactive hypoglycemia is challenging and each endocrine provider may have a different approach. Routine testing is generally not needed. Treatment of reactive hypoglycemia is through dietary modifications. Fewer simple sugars should be consumed, more fat and protein should be added to the diet, and meals/snacks should be consumed more frequently.
   b. Examples of snacks or meals with a complex carbohydrate, protein and fat:
      i. Meat or cheese sandwich on whole wheat bread
      ii. Yogurt and fruit
      iii. Cottage cheese and whole grain crackers
      iv. Turkey and cheese slices and veggies on salad
      v. Salad with bean or nuts added
      vi. Peanut butter or cheese and whole grain crackers
      vii. Whole grain bagel and cream cheese

VI. When to be concerned/see a doctor
   a. If you have symptoms of hypoglycemia (see above) make an appointment with your doctor or endocrinologist to determine what further testing needs to be done, if any. Generally, dietary changes are always recommended first before any blood work is done.