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C What Happens to Your Vitamin C

My purpose is to discover what factors influence vitamin C content in orange juice. My first question is does the process method affect vitamin C content? My second question is do storage time and temperature affect vitamin C content? I tested four types of orange juice: fresh-squeezed, 100% orange juice (not from concentrate), store-bought orange juice made from concentrate and orange juice homemade from frozen concentrate. I determined the amount of vitamin C by adding a starch solution, then titrating each juice with iodine. When all of the vitamin C reacted with the iodine, the starch in the juice turned a blue-black color. The amount of iodine used is an indicator of how much vitamin C is present. Fresh-squeezed orange juice had the most vitamin C. Store-bought orange juice made from concentrate had the lowest. Vitamin C content in orange juice is inversely related to processing, with one exception. Orange juice homemade from frozen concentrate had the second highest vitamin C content, which may be due to being frozen until reconstitution. I also discovered that vitamin C content in orange juice is inversely related to length of storage. Vitamin C content declines the longer it is stored. The decline was greater when stored at room temperature compared to refrigeration. This is important to understand so you can choose your orange juice wisely. You receive the most vitamin C by drinking fresh-squeezed orange juice. Also, do not keep your juice stored for a long time or at room temperature.