Effects of Cooking on the Nutritional Properties of Tomato Fruit (Solanum Lycopersicum L.)

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Abstract

The aim of this study is to investigate effects of three cooking methods (frying, grilling and baking) on the nutritional properties of tomato fruit (Solanum lycopersicum L.). Compared with fresh samples, all cooking processes were found to increase pH, total soluble solids, total sugar, ash, non enzymatic browning index and ABTS radical scavenging activity of tomato. However, the processes reduced the DPPH radical scavenging activity and its reducing power. Frying and grilling, the two most popular Algerian cooking methods, have induced a significant increase in total phenolics, flavonoids, and anthocyanins, but they have reduced vitamin C, total carotenoids, lycopene and the moisture contents. The traditional cooking methods of Algerian people improve the nutritional properties of tomato fruit. Similarly, we recommend the consumption of fresh tomato in order to provide some antioxidant compounds such vitamin C and carotenoids.

Keywords: Tomato fruit, Cooking methods, Nutritional properties, Antioxidant compounds.