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Effect of fermentation on the phytochemical contents and antioxidant properties of plant foods

(Book Chapter)

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Abstract

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Plant foods are a natural source of functional phytochemicals that can exert antioxidative effects. However, most of the phytochemicals that exist naturally in plant foods are bound and are less bioavailable than the free form. These phytochemicals and their antioxidant properties could be altered by processing, such as fermentation. The microorganisms used in fermentation are capable of modifying the bioavailability of phytochemicals in plant foods. This chapter discusses the effect of fermentation on the phytochemical contents of plant-based diets including legumes, cereals, seeds, vegetables and fruits. The chapter then discusses the changes in antioxidant properties upon fermentation and the beneficial effects on health of fermented plant-based foods.

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