

## CHANGES IN THE POTASSIUM CONTENT OF DIFFERENT POTATO VARIETIES AFTER COOKING

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This study determined analytically the potassium ( $K^+$ ) content of different varieties of raw potatoes and estimated the amount of  $K^+$  that can be extracted or leached from the raw potatoes by cooking.

Six different varieties of fresh potatoes (Idaho, Red Bliss, Yukon Gold, Purple Viking, White Rose and Russian Banana Fingerling) were obtained from Whole Foods Market in Manhasset, NY. Two different cooking methods (normal cooking [NC] and double cooking [DC]) were applied to each potato.  $K^+$  was extracted from the ash of the dried samples. The  $K^+$  content of aqueous extractions was determined through atomic absorption spectrophotometry. Triplicate samples of each potato were obtained and the results averaged. A detailed description of the methods and procedures has been described elsewhere.<sup>1</sup>

Mean  $K^+$  content was highest in the Purple Viking potato ( $448.1 \pm 60.5$  mg) and lowest in the Idaho potato ( $295 \pm 15.7$  mg). All of the raw potatoes had mean  $K^+$  content of about  $\geq 300$  mg/100gm. With the exception of the Idaho potato, the DC method resulted in more leached  $K^+$  from the raw potatoes than the NC method. Most of the potatoes retained a mean  $K^+$  content  $>200$  mg/100gm following the NC vs. the DC method (67% vs. 34%, respectively).

The  $K^+$  content of the raw potatoes studied varied considerably, with most tubers retaining a moderate amount of  $K^+$  after leaching. This study showed that the DC method appears to be more effective than the NC method in leaching  $K^+$  from the potatoes studied. The findings from this study provide useful information for dietitians involved in menu planning for people on  $K^+$ -restricted diets.

<sup>1</sup>Burrowes JD and Ramer NJ. Removal of potassium from tuberous root vegetables by leaching. *J Renal Nutr* 16:304-11, 2006.