

A Research on Daily Intakes of Nitrate and Nitrite in Japan

(Received February 9, 2001)

(Accepted May 14, 2001)

Yasuyo Okada, Kaori Kinumoto, Sayuri Fujiseki, Tomomi Mori, Mine Takagi,
Masumi Nakano, Keiko Nojiri, Eriko Mikamo, Masanori Semma, and Yoshio Ito

School of Pharmaceutical Sciences, Mukogawa Women's University

Keywords: nitrate, nitrite, market basket method, daily intake

Abstract

We already investigated the total daily intakes of nitrate and nitrite from the foodstuffs purchased in Japan by the market basket method in 1995 and 1996. This research was also carried out using the same method, that is, three hundred and forty-four kinds of the processed foods and one hundred and thirty-two kinds of the raw foods were collected from markets according to the average intake, then separated and grouped into twelve categories in 1998 and 1999, respectively. Each group was homogenized after addition of water, and analyzed. Nitrate and nitrite in prepared samples were determined by HPLC with electric conductivity detector and by diazo process, respectively.

The total daily intakes of nitrate and nitrite were 190 mg/day and 0.9 mg/day, respectively. Both total daily intakes were slightly lower than those in 1995 and 1996. Nitrate and nitrite were intaked more from the raw foods and the processed foods, respectively.

Table 1 Total daily intakes of nitrate and nitrite from processed foods and raw foods

Food additives	Foods	Daily intakes (mg/day)	Total daily intakes (mg/day)
Nitrate	Processed foods	20.47	189.54
	Raw foods	169.07	
Nitrite	Processed foods	0.76	0.89
	Raw foods	0.13	

Corresponding author:

Yasuyo Okada, School of Pharmaceutical Sciences, Mukogawa Women's University,
11-68, Koshien Kyuban-cho, Nishinomiya, Hyogo 663-8179, Japan