

CONTRIBUTION OF MEAT AND MEAT PRODUCTS TO THE DAILY INTAKES OF SOME MICRONUTRIENTS IN ITALY

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Background

Meat and meat products are a rich source of zinc and the main source of heme iron in the diet, but provides also substantial amounts of copper (Lombardi-Boccia et al., 2000). Meat represents also an important source of B vitamins and greatly contributes to the total daily intakes of these micronutrients in the diet. Data on the concentration of these micronutrients in meats are limited and, moreover, new type of meats are today commonly consumed in the daily diet. Horse and hostrich meats for example are becoming increasingly popular in Italy but few data are available on the micronutrients content of these meats.

Objectives

This study was designed for providing data on the trace elements and some B vitamins content in the meats and meat products most consumed in Italy. The contribution of meat consumption to the daily intakes of these micronutrients from the Italian total diet was also assessed.

Methods

Data on meat consumption in Italy were drawn up from the ‘market basket’ of the Italian total diet (Turrini & Lombardi-Boccia, in press). The meat cuts were selected and analysed for their trace elements (Fe, Zn, Cu) and B vitamins (thiamin, riboflavin, niacin) content. Trace elements were determined by ICP Plasma (Perkin-Elmer) following liquid ashing of the samples (4ml HNO₃+1ml H₂O₂) in a microwave digestion system. Vitamins were separated and quantified by HPLC after acidic and enzymatic (Takadiastase) hydrolysis of the samples, following the procedure described by Barna & Dworschak, 1994.

Results and Discussion

The daily intake of meat in Italy is of 130,6g/day, beef poultry and meat products having the highest consumption frequency. About 45% of the zinc intake, 19% of iron intake and 18% of the Cu intake in the Italian diet is provided by meat. Meat considerably contributes to the B vitamins supply in the Italian diet: 21% of the daily intakes of both thiamine and riboflavin and 40% of the daily niacin intakes in the Italian total diet was provided by meat.

Pertinent literature

Barna, E. & Dworschak, E. (1994) *J. Chromat.* 668, 359-363.
Lombardi-Boccia, G, Aguzzi, A, Cappelloni, M, Di Lullo, G (2000) *J. Food Comp. And Analysis* 13 (4): 525-7.
A.Turrini & Lombardi-Boccia, G (in press) *Nutr. Res.*

Contribution of meat and meat products to the daily intakes of trace elements and B vitamins in Italy

