

Scientific Advisory Committee on Nutrition

Paper for Discussion:

**Working Group on Iron
Agenda Item 7**

Please see the attached paper for consideration

Please also see:

1. Department of Health. Nutritional Aspects of the Development of Cancer. Report on Health and Social Subjects No 48. London: HMSO 1998. (Available on request).

Scientific Advisory Committee on Nutrition

Working Group on Iron

At SACN's last meeting on 13 June 2001, the Committee agreed to set up a Working Group on Iron.

BACKGROUND

National Surveys have consistently identified that a substantial proportion of some groups in the population, particularly young women and children, have low iron status as defined by ferritin levels, and consequently they may be at risk of iron deficiency anaemia.

Meat, in particular red meat, contributes a significant proportion of iron in the diet and it is efficiently absorbed compared to iron from vegetable foods. As total meat consumption has been falling since 1980, there is concern that any general recommendation to reduce meat consumption should not compromise micronutrient status, particularly that of iron. In 1998 the Working Group on Diet and Cancer of COMA recognised this aspect in their report entitled the 'Nutritional Aspects of the Development of Cancer' which highlighted possible links between red meat and bowel cancer.

The Working Group recommended for adults that "higher consumers should consider a reduction" (in red meat consumption). But the Group were "aware of the possible associated adverse implications of a reduction in meat consumption on other aspects of health, particularly iron status and recommended that this should be the subject of review" (DH 1998).

TERMS OF REFERENCE FOR THE WORKING GROUP:

To review the dietary intakes of iron in its various forms and the impact of various dietary patterns on the nutritional and health status of the population and to make proposals.

Members agreed that both beneficial and adverse effects of increasing iron intakes need to be considered including:

- The effect of low-grade infections/inflammation on iron status.
- The effect of iron status on mental and physical development.
- Effect of nutritional status of other micronutrients on iron absorption and utilisation.

- The potential adverse effects of excess iron, in particular, promotion of free radical damage and the risk of cardiovascular disease and cancer.

Committee members agreed that the Chair of the Working Group will be a member of SACN and members should include scientists/experts with an awareness of the following areas:

- the interaction of iron with other nutrients;
- molecular aspects regarding cellular and metabolic regulation;
- pathological considerations;
- broader social and ethical dimensions and;
- epidemiological considerations.

The following nominations were made by SACN Members and Observers to this group. Any external nominations received by the Secretariat will be tabled at the meeting.

| NAME |
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| Professor Sue Fairweather-Tait Head of Nutrition and Consumer Science Division Institute of Food Research |
| Professor Martin Pippard Professor of Haematology University of Dundee Medical School |
| Professor Mark Worwood Dept. of Haematology University of Hospital Wales |
| Dr C J Bates Head of Micronutrient Research MRC Human Nutrition Research |
| Professor Sally Grantham-McGregor Centre for International Child Health Institute of Child Health |
| Dr Mike Nelson Dept of Nutrition Kings College |
| Dr Ann Aukett Consultant Paediatrician City Hospital, Birmingham |
| M E Barker Centre for Human Nutrition University of Sheffield |
| W Doyle Institute of Brain Chemistry and Human Nutrition University of North London |
| Dr Alizon Draper Lecturer Centre of Food, Nutrition and Public Health University of Westminster |

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| Dr Barbara Golden Dept of Child Health Aberdeen University |
| J Golding Unit of Paediatric and Perinatal Epidemiology Institute of Child Health University of Bristol |
| Professor Olle Hernell Dept of Clinical Sciences, Paediatrics Umea University Sweden |
| Professor Rob Hider Head of Dept of Medicinal Chemistry Kings College |
| Professor A V Hoffbrand Dept of Haematology Royal Free Hospital |
| Dr M Lawson Senior Lecturer Nutrition Unit Institute of Child Health, London |
| S Logan Systematic Reviews Training Unit Institute of Child Health, London |
| Dr Harry McArdle Head of Nutrition and Development Rowett Research Institute |
| Dr Geraldine McNeil Aberdeen University |
| Dr Robert Moy Senior lecturer Consultant in Paediatrics Institute of Child Health, Birmingham |
| Professor H Powers Dept of Paediatrics University of Sheffield |
| S Southon Institute of Food Research Norwich Research Park |
| D I Thurnham Human Nutrition Research Group School of Biological Sciences University of Ulster |

Members are invited to:

Agree the membership of the Working Group.

**SACN Secretariat
September 2001**