National Nutrition Survey II:
Do all groups of the population have a sufficient supply of biofactors?

A critical analysis by the Society for Biofactors

How was the data collected?

On behalf of the Federal Ministry of Food, Agriculture and Consumer Protection, a nationwide cross-sectional study that represented the general population was carried out between November 2005 and January 2007 on 580 boys and 554 girls aged between 14 and 17, as well as 6,117 men and 7,090 women aged between 18 and 80 that measured their height, weight and waist circumference and their standard dietary habits, in addition to a detailed survey using standardised questionnaires. The intake of biofactors (including vitamins, macro-elements and trace elements) was ***estimated*** on the basis of their current food consumption (telephone survey about their food intake, as well as food-weighing protocols for around 1,000 people) and the subsequent calculation of the contents with the help of the Federal Food Key. From this data, the contents were then calculated and compared to the intake recommendations of the nutrition societies of Germany, Austria and Switzerland (the so-called D-A-CH reference values). It was therefore ***calculated*** what percentage of those surveyed reached the recommended intake values. Significantly more accurate results would have been achieved using the – much more complicated – duplicate method, in which a duplicate of the same quantity of each constituent of a meal that is consumed is made, transferred to a sample container and then analysed. Studies carried out by the working groups under Prof. Anke in Jena or Prof. Classen in Hohenheim, amongst others, have shown that such estimated values, e.g. for magnesium and zinc, were up to 25% above the actual concentrations present – In other words, the estimated values – with the exception of sodium – are mostly too high, i.e. they provide a picture which is too favourable - It should also be borne in mind that although the D-A-CH intake recommendations include a safety factor, ***they do not take into account any additional requirements caused by illness, medications or stress!***

Key results of the nutrition survey

Broad public interest has been roused above all by the alarming result that 66% of men and 51% of women are overweight; the reasons for this can be summarised as follows: “Lack of exercise, poverty, increasing age, marriage and divorce make people fat”. - It is equally disturbing that the proportion of underweight girls aged between 14 and 17 has risen from 4% to 10%.

Are there gaps in the supply of biofactors?

The general statement of the authors: *“Anyone who eats a balanced diet in Germany can be certain that they have an adequate supply of the most important vitamins and nutrients. The main exceptions are women of childbearing age, e.g. with respect to iron”*, and relates to the mean values (medians). The Society for Biofactors points out that sizeable **marginal groups** (listed in the report) do not reach the intake recommendations, however, as they make unbalanced and unfavourable food choices: this applies in particular to folic acid and vitamin D, as well as vitamins A and E, those of the B complex and vitamin C, but also calcium, magnesium, zinc and iodine and omega-3 fatty acids (due to the low consumption of fish or fish dishes).

Recommendation of the Society for Biofactors

If it is not possible for an individual to change their eating habits or there is an increased requirement due to illness (e.g. diabetes), medication (e.g. water tablets) or stress, additional intake through the use of appropriate supplements is recommended. People from the age of 35 already use such supplements more frequently than those aged between 14 and 34; the least likely people to take supplements are women aged between 14 and 18. When selecting supplements, it is important to seek professional advice, e.g. from one's pharmacist: the nutrition survey shows that the quantities of biofactors taken in as a result can fluctuate significantly, e.g. for magnesium between 14 and 292 mg, for zinc between 0.7 and 10 mg or for folic acid between 49 and 680 µg a day.