

Eur J Clin Nutr 45, 569-581], underreporting was defined with a value < 1.14 for an individual subject in the ratio (energy intake)/(basal metabolic rate computed according to Schofield).

Using this criteria, 55% ($n = 229$) of the subjects were classified as UR. The proportion of women was increased in the UR group compared to non-UR subjects (91% vs 67%, $P < 0.000,001$) and analyses were performed separately in each gender. In women as in men, obese UR compared to non-UR were characterized by an increased protein intake (about 20% vs 15% of total energy intake, $P < 0.000,001$) and an increased proportion of restraint subjects ($P < 0.05$), whereas age and BMI were comparable between the two groups.

In conclusion, in obese patients seeking advice in a hospital setting, dietary underreporting: 1) concerns predominantly female subjects, 2) may be related to certain macronutrients, and 3) appears to be associated with dietary restriction.

Cooking and dressing fats in Sardinia and Corsica. AM Carcassi¹, J Giannettini², I Carta¹, R Coinu³, P Pranzetti³, A Luciani² (¹ *Fisiologia Umana, Università, Via Porcell, 4, 09124 Cagliari, Italy*; ² *Faculté des sciences, université de Corse, BP 52, 20250 Corte, France*; ³ *Fisiologia Generale, Università, Via Muroni, 25, 07100 Sassari, Italy*).

The type of fat used in cooking and dressing is essential to ensure a proper intake of saturated, monounsaturated and polyunsaturated fatty acids. The aim of this work is to compare the eating habits on two islands of the Mediterranean Sea. The research was performed from written answers to a questionnaire which involved 1 022 Sardinian and 465 Corsican families. The statistical analysis (χ test) shows significant differences ($P < 0.001$) between the two islands:

- for sauce preparation, meat and fish cooking, at least 75% of the Sardinian families use olive oil whereas two Corsican families out of three use other vegetable oils;
- for salad dressing of raw and cooked vegetables, a large majority of the Sardinian families ($> 90\%$) use olive oil whereas in Corsica, although 65% of the families consume olive oil, 23% used other vegetable oils;
- for frying, Sardinian families use other vegetable oils (64%) more often than olive oil (34%). In Corsica, other vegetable oils are mostly used (88%);
- finally, for pastry, we note an important use of solid fats: in Sardinia, lard (39%), butter (36%) and margarine (27%) are prevalent whereas in Corsica it is butter (65%).

Consequently, these two neighbouring islands of the Mediterranean Sea show very different habits in their consumption of fats.

Nutritional consequences of the migration of North-African subjects to Seine Saint-Denis. P Miossec, B Betari, F Sedjari, J Paries, Jr Attali, P Valensi (*Nutrition and Metabolic Diseases Laboratory, Jean Verdier Hospital, Paris Nord University, avenue du 14 juillet, 93140 Bondy, France*).

Two hundred and seven healthy adult subjects, born in Maghreb and living in France for more than 1 year (group M) were compared to ninety-six healthy French age-matched subjects born in France (group F) regarding food intakes and anthropometric and metabolic parameters. Mean age (39 ± 0.7 vs 40.8 ± 0.9 year) and sex ratio were similar in the two groups. In M the total caloric intake was higher than in F ($2\,580 \pm 97$ vs $1\,997 \pm 52$ Kca/day; $P < 0.001$) but the lipid (35.4 ± 0.4 vs $40.0 \pm 0.5\%$; $P < 0.001$), carbohydrate (49.8 ± 0.5 vs $42.7 \pm 0.7\%$; $P < 0.001$) and protein (14.9 ± 0.3 vs $17.4 \pm 0.4\%$; $P < 0.001$) intakes were closer to the

recommendations. The animal / vegetal proteins ratio (1.7 ± 0.1 vs 2.9 ± 0.2 ; $P < 0.001$), the parts of polyunsaturated fatty acids (22.9 ± 0.6 vs $16.3 \pm 0.6\%$ of the lipid intake; $P < 0.001$) and polysaccharides (31.8 ± 0.8 vs $22.5 \pm 0.8\%$ of the total caloric intake; $P < 0.001$) were also more appropriate, the part of monounsaturated fatty acids was similar in the two groups. BMI (26.8 ± 0.3 vs $25.4 \pm 0.1 \text{ kg/m}^2$) and the waist-to-hip ratio (0.87 ± 0.01 vs 0.83 ± 0.01) were higher ($P < 0.01$), these differences being only due to the women. Fatty mass in women, evaluated by bioelectrical impedance was also higher in M than in F (31.2 ± 0.6 vs $28.4 \pm 0.7\%$; $P < 0.01$). In M the glycaemia 2 h after glucose load (75 g per os) was higher (5.7 ± 0.2 vs $4.9 \pm 0.2 \text{ mmol/L}$; $P < 0.01$), in spite of a higher insulinemia (261 ± 16 vs $190 \pm 18 \text{ pmol/L}$; $P < 0.01$), the serum total cholesterol (TC) was lower (4.92 ± 0.08 vs $5.83 \pm 0.13 \text{ mmol/L}$; $P < 0.001$), HDL/TC ratio, triglycerides and apoproteins A1 and B did not differ significantly from F. Thus, in the studied group, the migration to France seems responsible for alimentary changes which, though the imbalance is still lower than that observed in F, are associated with a decrease in insulin sensitivity and an aggravation of the cardiovascular risk profile.

Impact of food supplementation from 4-7 months on physical growth of infants in four developing countries. KB Simondon, A Gartner, J Berger, A Cornu, C Ly, JP Massamba, JL San Miguel, I Missotte, P Traissac, F Simondon, F Delpeuch, B Maire (*Unité de nutrition, Orstom, BP 5045, 34032 Montpellier cedex, France*).

The growth velocity of breastfed infants in developing countries falls from 4-6 months as complementary food is introduced into their diet. The objective of the study was to test whether daily supplementation with a high-quality gruel from the age of 4-7

months had a positive impact on growth in length.

Controlled randomized trials were conducted in the Congo (C, $n = 120$), Senegal (S, $n = 110$), Bolivia (B, $n = 127$) and New Caledonia (NC, $n = 90$). At 4 months of age, infants were randomly allocated to an intervention or a control group. Twice a day, supplemented infants received a high-energy-density commercial food supplement based on cereals and enriched with minerals and vitamins. Supplementation was done at home by the mothers, under supervision of field workers who measured the amount consumed. The controls received no placebo and both groups were free to eat local food in addition to breastmilk. The main outcome measure was the 4-7 months length increment.

Mean consumption varied from 558-790 kJ/day according to the country. All infants were breastfed until 7 months old, except for New Caledonia (47%). Local complementary food was introduced early in the Congo (96% of controls ate complementary food at 5 months) and late in Senegal (40% of controls at 5 months). Less supplemented infants received local complementary food compared to controls in the Congo and Senegal ($P < 0.001$). In Senegal, the 4-7 months length increment was greater among supplemented infants compared to the controls (+ 0.48 cm, $P < 0.05$) but not the weight increment. In the other countries, no impact was found.

In conclusion, food supplementation from 4-7 months is not likely to improve physical growth significantly in the settings under study.

The amino acid induced aversion acts as an alarm signal. G Fromentin¹, S Feurté¹, D Tomé¹, S Nicolaïdis² (¹ *GER Nutrition humaine, Ina PG Paris 5*; ² *CNRS UPR 9054, Collège de France, Paris 5, France*).