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## **FUNCTIONAL DISORDERS, VASCULAR RISKS AND MALIGNANT DISEASES. PREVENTION BY SUBJECTIVE LOWERING OF PREPRANDIAL BLOOD GLUCOSE (BY PLANNING AND RECOGNIZING INITIAL HUNGER)**

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We recently described the training of the passage from scheduled to demanded meals in infants and adults. Reduction in energy intake was obtained by subjectively abolishing conditioned meals and by administering food only after demand by the infant or after hunger perception by the adult (Initial Hunger Meal Pattern; IHMP). Conditioned meals were those scheduled and/or presented to the infant as well to the adult by sight, smell, mentioning, gesturing or simply at a fixed mealtime. In contrast IHMP training consisted of meal suspension and of feeding after the first infant's demand or after an adult's self-noticing arousal of hunger. IHMP was checked by measuring mean blood glucose before three meals per day for a week (MBG) and was associated with significant decreases in diary-reported energy-intake, MBG, glycated hemoglobin, body weight, insulin AUC in glucose tolerance tests and in days with diarrhoea as compared to randomized control subjects who maintained conditioned meals. Although generalized, conditioned eating is a modern aberration that is associated with development of insulin resistance and overall inflammation. These associations are well demonstrated independently from the implicated mechanism. A state of overall subclinical inflammation greatly increases cell and DNA replications and replication errors. After decades of DNA errors, oncogenic cells arise and cumulate. A prevention of malignancies is possible by interrupting the development of conditioned eating, insulin resistance and associated overall inflammation.

### **BIOGRAPHY**

Mario Ciampolini is a retired professor from University of Florence, Department of Paediatrics. He is the Emeritus member of the society for the study of ingestive behavior and of ASN (American Society for Nutrition), member of the Academy of Sciences of India Union. Two Children from Vanna Pastacaldi: Iacopo, orthopedic surgeon, director of a hospital in Sommerset (UK) and Lorenzo, PhD in electronic engineering, currently in the management of ST Microelectronics (Grenoble, FR). He made humanistic studies during the first seven years after graduation and wrote two Italian books: Human differences and a study on Renaissance. Human differences he (born 1933) directed the gastroenterology Research Unit, a third level referral center in the department of Pediatrics of the University of Florence (Meyer hospital) from 1965 to 2000. In Tuscany first he diagnosed celiac disease by the Watson capsule. He worked at the Cornell University for a joined research with the University of Florence on energy expenditure in children. A long term strategy was designed with Giuliano Parrini, prof. of physics (Florence, It), Andrea Giommi, prof. of statistics (Florence, It) and Cutberto Garza, Boston College, Rector. Three students came from Amsterdam Medical Center to learn "Initial Hunger (IH)": The unit published 150 scientific articles, more than 50 in international Press. His main achievements are Hunger can be taught; and an initial hunger meal pattern can be constructed (IHMP = Three IH arousals per day). IHMP decreases energy intake, mean pre-prandial BG, body weight, insulin resistance and fecal energy loss. The sequence of 21 pre-prandial BG measurements in a week (Mean BG) is stable and comparable through months in the single individual and stratified in population.

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