

Pilot Study to Assess Isoflavone Intake in Middle-Aged Italian Subjects

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Knowledge of isoflavone (IF) intake in Western populations is scarce, primarily because data about the content of these compounds in non-soy derived foods are incomplete or unavailable. The aims of this study were 1) to enrich the data available in literature about the IF content in traditional Italian foods, 2) to estimate daidzein (D) and genistein (G) intake in an Italian population sample. Eighteen Italian foods have been selected and analysed for IF content by GC-MS; the assessment of IF intake was performed in sixty healthy middle-aged Italian subjects after investigation of their dietary habits by food frequency questionnaire (FFQ). The mean IF intake was 171 ± 261 $\mu\text{g}/\text{die}$ (26-1415 $\mu\text{g}/\text{die}$). The mean G intake was greater than D (98 ± 131 $\mu\text{g}/\text{die}$ vs 76 ± 131 $\mu\text{g}/\text{die}$). As expected, soy products, even though poorly consumed (27%), resulted the main contributor to IF intake (IF intake was 473.4 ± 440 $\mu\text{g}/\text{die}$ vs 75 ± 38 $\mu\text{g}/\text{die}$ in soy consumers and non soy consumers respectively $p < 0.001$). Among Mediterranean foods, the main contributor resulted fresh bread that is widely consumed (97%). The percentage contribution of the cereal group to mean IF intake was 91%; the legume, fruit and vegetables groups brought a low contribution (3%, 2% and 4% respectively). The total daily IF intake found was low and probably not sufficient to produce biological effects. However more studies are necessary to investigate whether low exposure to IF for a long time could have positive effects on human health.

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