**Supplementary Information on a semi-quantitative food frequency questionnaire (FFQ)**

We used a semi-quantitative food frequency questionnaire to estimate food intake that has been reported previously [1-5]. We chose 20 foods/food groups and beverages (showing as <number>) including <1> rice, <2> bread, <3> noodles,<4> potatoes, <5>soybeans, <6> soybean-paste, <7> green-yellow vegetables, <8> other vegetables, <9> fruit, <10> mushrooms, <11> seaweed, <12> fish and other seafood, <13> meat, <14> eggs, <15> milk, <16> oils, <17> confections (1. Western sweet foods [cakes or cream puffs, etc], 2. Japanese sweet foods (manju [steamed sweet bean buns], etc), <18> green tea, <19> coffee, and <20> alcoholic beverages. Food intake frequencies were classified into eight categories (never or seldom, 1-3 times per month, 1-2 times per week, 3-4 times per week, 5-6 times per week, once a day, twice a day, and three or more times a day, which were converted to 0, 0.1, 0.2, 0.5, 0.8, 1, 2, and 3 before analysis). For each food category, the frequency was multiplied by the portion size, and the total intake amount was calculated. The portion size of Western sweet foods was 70 g for men and women, those of Japanese sweet foods were 70 g for men and 65 g for women. Energy intake by FFQs was estimated by using the Standard Tables of Food Composition in Japan, 5th edition [6]. Total alcohol intake was estimated as the sum of pure alcohol intake. The frequency of alcohol intake was obtained in six categories (never or seldom, 1-3 times per month, 1-2 times per week, 3-4 times per week, 5-6 times per week, and every day). Total alcohol consumption (g/day) was estimated as the summed amount of pure alcohol consumption. Energy intake from alcohol, alcohol intake (g/day) x 29.3(KJ) was included in total energy intake.

**References**

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