# Supplements

**Supplementary Table 1 Recommended food intake (gram/day) for pregnant Chinese women in each trimester**

|  |  |  |  |
| --- | --- | --- | --- |
| **Food category** | **1st trimester** | **2nd trimester** | **3rd trimester** |
| **Cereal** | 275 | 300 | 350 |
| **Vegetable** | 400 | 400 | 400 |
| **Fruit** | 150 | 300 | 300 |
| **Dairy** | 300 | 400 | 400 |
| **Soybean &nut** | 40 | 50 | 50 |
| **Meat and poultry** | 50 | 75 | 75 |
| **Aquatic food** | 50 | 75 | 75 |
| **Egg** | 50 | 50 | 50 |

**Supplementary Table 2 The scoring methods of Diet Balance Index in pregnancy (DBI-P) in the 1st and 2nd trimesters**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Components** | **Score** | **Subgroup** | **Sub score** | **1st trimester$**  | **2nd trimester$** |
| **Cereal\*** | (-12)-12 | Cereal | (-12)-12 | 0 g/d =-12, (275-300) g/d =0, >575 g/d =12, score increases 1 with intake amount increases 25 g/d | <25 g/d =-12, (300-325) g/d =0, >600 g/d =12, score increases 1 with intake amount increases 25 g/d |
| **Vegetable &fruit** | (-12)-0 | Vegetable | (-6)-0 | 0 g/d =-6, ≥400 g/d =0, score increases 1 with intake amount increases 80 g/d | Same as the 1st trimester |
|  |  | Fruit | (-6)-0 | 0 g/d =-6, ≥150 g/d =0, score increases 1 with intake amount increases 30 g/d | 0 g/d =-6, ≥300 g/d =0, score increases 1 with intake amount increases 60 g/d |
| **Dairy, soybean &nut** | (-12)-0 | Dairy | (-6)-0 | 0 g/d =-6, ≥300 g/d =0, score increases 1 with intake amount increases 60 g/d | 0 g/d =-6, ≥400 g/d =0, score increases 1 with intake amount increases 80 g/d |
|  |  | Soybean &nut | (-6)-0 | 0 g/d =-6, ≥40 g/d =0, score increases 1 with intake amount increases 8 g/d | 0 g/d =-6, ≥50 g/d =0, score increases 1 with intake amount increases 10 g/d |
| **Animal food** | (-12)-8 | Meat | (-4)-4 | 0 g/d =-4, (45-60) g/d =0, >105 g/d =4, score increases 1 with intake amount increases 15 g/d | 0 g/d =-4, (60-80) g/d =0, >140 g/d =4, score increases 1 with intake amount increases 20 g/d |
|  |  | Aquatic food | (-4)-0 | <5 g/d =-4, ≥50 g/d =0, score increases 1 with intake amount increases 15 g/d | 0 g/d =-4, ≥75 g/d =0, score increases 1 with intake amount increases 25 g/d |
|  |  | Egg | (-4)-4 | 0 g/d =-4, (45-60) g/d =0, >105 g/d =4, score increases 1 with intake amount increases 15 g/d | Same as the 1st trimester |
| **Food variety‖** | (-12)-0 | Variety | (-12)-0 | For each identified food variety subgroup: <25 g/d =-1, ≥25 g/d =0. | Same as the 1st trimester |

\*Cereal include rice, wheat, dried legumes (excluding soybean) and tubers. Intake amount means fresh amount. Sweet potato: intake amount divided by 3; potato: intake amount divided by 4; yam and yam bean: intake amount divided by 6;

‖Food variety is assessed by the intake of 12 identified food variety subgroups, including 1) rice and products; 2) wheat and products; 3) corn, coarse grains and products, starch roots and products; 4) dark-colored vegetables; 5) light-colored vegetables; 6) fruits: fresh and dried fruit; 7) soybean and nut: soybean, black bean, bean curd, nut; 8) dairy products; 9) livestock meat products; 10) poultry products; 11) eggs; and 12) fish and shellfish.

**$**g/d: grams/day

**Supplementary Table 3 The scoring system of Higher Bound Score (HBS), Lower Bound Score (LBS), and Diet Quality Distance (DQD)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **A balanced intake** | **A relatively balanced intake** | **Mild imbalance** | **Moderate imbalance** | **Severe imbalance** |
| **HBS** | 0 | 1-4 | 5-8 | 9-12 | ≥13 |
| **LBS** | 0 | 1-12 | 13-24 | 25-36 | ≥37 |
| **DQD** | 0 | 1-12 | 13-24 | 25-36 | ≥37 |

**Supplementary Table 4 Univariate analysis for differences between maternal dietary intake and LBW or SGA (n=3145 for 1st trimester, n=1950 for 2nd trimester)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Characteristics** | **LBW** | **Normal** | **p** | **SGA** | **Normal** | **p** |
| **1st trimester -Cereal** | 1.1±4.9 | 1.5±5.7 | 0.679 | 0.8±5.5 | 1.5±5.6 | 0.153 |
| **1st trimester -Vegetable** | -3.1±1.7 | -2.9±1.6 | 0.137 | -2.9±1.7 | -2.9±1.6 | 0.825 |
| **1st trimester -Fruit** | -0.6±1.4 | -0.6±1.3 | 0.996 | -0.6±1.3 | -0.6±1.3 | 0.350 |
| **1st trimester -Dairy** | -4.4±1.8 | -4.3±1.8 | 0.433 | -4.0±1.9 | -4.3±1.8 | 0.040 |
| **1st trimester -Soybean &nut** | -3.1±2.6 | -3.0±2.6 | 0.772 | -2.8±2.6 | -3.0±2.6 | 0.314 |
| **1st trimester -Meat** | -0.1±2.7 | 0±2.8 | 0.855 | -0.1±2.8 | -0.1±2.8 | 0.842 |
| **1st trimester -Aquatic food** | -3.0±1.6 | -2.9±1.6 | 0.978 | -2.9±1.7 | -3.0±1.6 | 0.580 |
| **1st trimester -Egg** | -0.6±2.4 | -0.7±2.5 | 0.891 | -0.5±2.6 | -0.7±2.5 | 0.271 |
| **1st trimester -Variety** | -4.6±1.7 | -4.2±1.6 | 0.054 | -4.2±1.7 | -4.2±1.6 | 0.996 |
| **2nd trimester -Cereal** | 1.2±5.5 | 1.8±6.1 | 0.293 | 2.0±6.0 | 1.8±6.1 | 0.622 |
| **2nd trimester -Vegetable** | -2.6±1.8 | -2.8±1.6 | 0.613 | -3.0±1.6 | -2.8±1.6 | 0.210 |
| **2nd trimester -Fruit** | -3.3±2.0 | -3.1±1.9 | 0.175 | -3.3±1.9 | -3.1±1.9 | 0.228 |
| **2nd trimester -Dairy** | -4.1±1.6 | -4.0±1.7 | 0.743 | -4.3±1.7 | -4.0±1.7 | 0.085 |
| **2nd trimester -Soybean &nut** | -3.2±2.7 | -3.3±2.6 | 0.894 | -3.6±2.6 | -3.3±2.6 | 0.243 |
| **2nd trimester -Meat** | 0.7±2.4 | 0.8±2.7 | 0.683 | 0.5±2.7 | 0.8±2.7 | 0.224 |
| **2nd trimester -Aquatic food** | -2.9±1.6 | -2.9±1.5 | 0.803 | -3.0±1.5 | -2.9±1.5 | 0.352 |
| **2nd trimester -Egg** | -0.8±2.4 | -1.1±2.3 | 0.321 | -0.7±2.3 | -1.1±2.3 | 0.076 |
| **2nd trimester -Variety** | -3.8±1.7 | -4.0±1.8 | 0.459 | -4.2±1.7 | -4.0±1.8 | 0.232 |

LBW, low birth weight. SGA, small for gestational age.