**Supplementary Material 1. Oxidative balance score assignment scheme**

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| **Component** | | | **Scoring assignment** | | |
| **0** | **1** | **2** |
| **Pro-oxidant factors** |  |  |  |  |  |
| Pro-oxidant  dietary factors | Fat | Total fat (g/day) a | 3rd tertile (High intake) | 2nd tertile (Medium intake) | 1st tertile (Low intake) |
| PUFAs (ω-6 fatty acids, g/day) a | 3rd tertile (High intake) | 2nd tertile (Medium intake) | 1st tertile (Low intake) |
| Saturated fatty acid (g/day) a | 3rd tertile (High intake) | 2nd tertile (Medium intake) | 1st tertile (Low intake) |
| Mineral | Iron (mg/day) a | 3rd tertile (High intake) | 2nd tertile (Medium intake) | 1st tertile (Low intake) |
| Food | Red and processed meats (g/day) a | 3rd tertile (High intake) | 2nd tertile (Medium intake) | 1st tertile (Low intake) |
| Pro-oxidant  lifestyle factors | Alcohol consumption status | | Current | Ex-drinker | None |
| Smoking status | | Current | Ex-smoker | None |
| BMI (kg/m2) | | Obesity (≥25) | Overweight (23.0-24.9) | Normal (18.5-22.9) |
| **Antioxidant factors** |  |  |  |  |  |
| Antioxidant  dietary factors | Vitamins | Vitamin A (μg RE/day) a | 1st tertile (Low intake) | 2nd tertile (Medium intake) | 3rd tertile (High intake) |
| Vitamin D (μg /day) a | 1st tertile (Low intake) | 2nd tertile (Medium intake) | 3rd tertile (High intake) |
| Vitamin E (mg/day) a | 1st tertile (Low intake) | 2nd tertile (Medium intake) | 3rd tertile (High intake) |
| Folate (μg /day) a | 1st tertile (Low intake) | 2nd tertile (Medium intake) | 3rd tertile (High intake) |
| Vitamin C (mg/day) a | 1st tertile (Low intake) | 2nd tertile (Medium intake) | 3rd tertile (High intake) |
| Carotenoids | α-carotene (μg /day) a | 1st tertile (Low intake) | 2nd tertile (Medium intake) | 3rd tertile (High intake) |
| β-carotene (μg /day) a | 1st tertile (Low intake) | 2nd tertile (Medium intake) | 3rd tertile (High intake) |
| Lycopene (μg /day) a | 1st tertile (Low intake) | 2nd tertile (Medium intake) | 3rd tertile (High intake) |
| β-cryptoxanthin (μg /day) a | 1st tertile (Low intake) | 2nd tertile (Medium intake) | 3rd tertile (High intake) |
| Lutein/zeaxanthin (μg /day) a | 1st tertile (Low intake) | 2nd tertile (Medium intake) | 3rd tertile (High intake) |
| Fat | PUFAs (ω-3 fatty acids, g/day) a | 1st tertile (Low intake) | 2nd tertile (Medium intake) | 3rd tertile (High intake) |
| Minerals | Selenium (μg /day) a | 1st tertile (Low intake) | 2nd tertile (Medium intake) | 3rd tertile (High intake) |
| Zinc (mg/day) a | 1st tertile (Low intake) | 2nd tertile (Medium intake) | 3rd tertile (High intake) |
| Calcium (mg/day) a | 1st tertile (Low intake) | 2nd tertile (Medium intake) | 3rd tertile (High intake) |
| Flavonoids (mg/day) a | | 1st tertile (Low intake) | 2nd tertile (Medium intake) | 3rd tertile (High intake) |
| Fiber (g/day) a | | 1st tertile (Low intake) | 2nd tertile (Medium intake) | 3rd tertile (High intake) |
| Food | Cruciferous vegetables (g/day) a | 1st tertile (Low intake) | 2nd tertile (Medium intake) | 3rd tertile (High intake) |
| Antioxidant  lifestyle factors | Regular physical activity (METs/week) | | 1st tertile (Low METs/week) | 2nd tertile (Medium METs/week) | 3rd tertile (High METs/week) |

BMI, body mass index; METs, metabolic equivalents for task; PUFAs, polyunsaturated fatty acids. a All dietary components (food and nutrients) were adjusted for total energy intake and then divided into tertiles.