**Supplementary Table 1A.** The effect of individual factors on growth parameters in a linear mixed model for repeated measures with estimates.

(GA = Gestational age, SGA = Small for gestational age, IVH = Intraventricular hemorrhage, Age= Birth, TEA, 12 and 24 months of age).

Table 1A represents the model including following explanatory variables: the total energy intake, GA, SGA, IVH, and age and also all their interactions to see whether these variables affect to the growth parameters over a two-year period. For the numerical variables in the model (Energy, GA) estimates below represents the slope in the model whereas for the categorical variables in the model (SGA, IVH) estimates are model based means in different categories (Yes, No). For age estimates, the table represents the model-based mean estimates for the growth parameters with their z-scores at birth, term-equivalent age, and the corrected ages of 12 and 24 months.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Weight** | | | **Height** | | | **Head circumference** | | |
| *Value* | *Estimate* | *p* | *Value* | *Estimate* | *p* | *Value* | *Estimate* | *p* |
| **Energy** |  | 0.031 | 0.0008 |  | 0.0392 | 0.0003 |  | 0.0257 | 0.027 |
| **Energy\*Age** | *birth* | 0.049 | <0.0001 | *birth* | 0.0684 | <0.0001 | *birth* | 0.0447 | 0.0043 |
| *TEA* | 0.037 | 0.0025 | *TEA* | 0.0423 | 0.0045 | *TEA* | 0.0365 | 0.0020 |
| *12* | 0.024 | 0.071 | *12* | 0.0283 | 0.04 | *12* | 0.0129 | 0.39 |
| *24* | 0.016 | 0.28 | *24* | 0.0180 | 0.19 | *24* | 0.009 | 0.57 |
| **GA** |  | -0.011 | 0.46 |  | -0.021 | 0.21 |  | -0.0010 | 0.60 |
| **SGA**  **mean** | *Yes* | -1.921 | <0.0001 | *Yes* | -1.779 | <0.0001 | *Yes* | -1.474 | 0.0010 |
| *No* | -0.993 | <0.0001 | *No* | -0.542 | 0.0037 | *No* | -0.641 | 0.0021 |
| **IVH**  **mean** | *Yes* | -1.637 | <0.0001 | *Yes* | -1.223 | 0.0018 | *Yes* | -1.287 | 0.0031 |
| *No* | -1.277 | <0.0001 | *No* | -1.098 | <0.0001 | *No* | -0.829 | <0.0001 |
| **Age**  **mean** | *birth* | -1.070 | <0.0001 | *birth* | -0.280 | 0.43 | *birth* | -0.417 | 0.23 |
| *TEA* | -2.115 | <0.0001 | *TEA* | -2.154 | <0.0001 | *TEA* | -0.739 | 0.0057 |
| *12* | -1.173 | 0.0002 | *12* | -1.241 | 0.0001 | *12* | -1.413 | <0.0001 |
| *24* | -1.469 | <0.0001 | *24* | -0.976 | 0.0025 | *24* | -1.662 | <0.0001 |

\*

* Energy\*age describes the association between energy growth parameters separately at each age (birth, TEA, corrected ages of 12 months, 24 months) showing that association of total energy for first week declines over time.
* P-values for continuous explanatory variables (Energy, GA) describes the overall association between energy and growth parameters over the two-year period (from birth to the corrected age of two years). This association is described by a slope estimate.
* Estimates for the categorical variables (SGA, IVH) describes the model-based growth parameter z-score values over the two-year period, and p-values evaluate whether the estimate differs from zero (z score = 0 as the mean growth result).
* Age mean indicates model-based z-score mean values at different age (birth, TEA, 12 months, 24 months).

**Supplementary Table 1B**.

The effect of individual factors on growth parameters in a linear mixed model for repeated measures with estimates.

(GA = Gestational age, SGA = Small for gestational age, IVH = Intraventricular hemorrhage, Age = meaning Birth, TEA, 12 and 24 months of age).

Table 1B represents the model including following explanatory variables: the total intakes of protein, lipids and carbohydrates, GA, SGA, IVH, and age and also all their interactions to see whether these variables affect to the growth parameters over a two-year period. For the numerical variables in the model (protein, lipids, carbohydrates, GA) estimates below represents the slope in the model whereas for the categorical variables in the model (SGA, IVH) estimates are model based means in different categories (Yes, No). For age estimates, the table represents the model-based mean estimates for the growth parameters with their z-scores at birth, term-equivalent age, and the corrected ages of 12 and 24 months.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Weight** | | | **Height** | | | **Head circumference** | | |
| *Value* | *Estimate* | *p* | *Value* | *Estimate* | *p* | *Value* | *Estimate* | *p* |
| **Protein** |  | -0.248 | 0.26 |  | -0.338 | 0.19 |  | -0.126 | 0.64 |
| **Lipids** |  | 0.289 | 0.15 |  | 0.354 | 0.13 |  | 0.137 | 0.58 |
| **Carbohydrates** |  | -0.029 | 0.72 |  | 0.0272 | 0.77 |  | -0.041 | 0.68 |
| **GA** |  | 0.019 | 0.14 |  | 0.014 | 0.34 |  | 0.035 | 0.028 |
| **SGA**  **mean** | *Yes* | -2.390 | <0.0001 | *Yes* | -2.388 | <0.0001 | *Yes* | -1.913 | <0.0001 |
| *No* | -0.797 | <0.0001 | *No* | -0.345 | 0.12 | *No* | -0.519 | 0.028 |
| **IVH**  **mean** | *Yes* | -1.633 | <0.0001 | *Yes* | -1.311 | 0.0049 | *Yes* | -1.381 | 0.0053 |
| *No* | -1.553 | <0.0001 | *No* | -1.421 | <0.0001 | *No* | -1.051 | <0.0001 |
| **Age**  **mean** | *birth* | -1.399 | <0.0001 | *birth* | -0.718 | 0.051 | *birth* | -0.772 | 0.031 |
| *TEA* | -2.303 | <0.0001 | *TEA* | -2.400 | <0.0001 | *TEA* | -0.974 | 0.0008 |
| *12* | -1.217 | <0.0001 | *12* | -1.333 | <0.0001 | *12* | -1.455 | <0.0001 |
| *24* | -1.454 | <0.0001 | *24* | -1.013 | 0.0018 | *24* | -1.664 | <0.0001 |

In addition to the supplementary table 1A.