

## Supplementary tables

**Table S1:** Associations between maternal dietary selenium intake and infant birth weight percentile according to ultrasound-based and customized growth standards in women in the Norwegian Mother, Father and Child Cohort study

	Birth weight percentile according to:							
	Ultrasound-based growth curves				Customized growth curves			
	n	$\beta^2$ (95% CI)	SE	P	n	$\beta^2$ (95% CI)	SE	P
Unadjusted	71,703	1.0 (0.8, 1.2)	0.1	$5.9 \times 10^{-20}$	70,767	0.7 (0.5, 0.9)	0.1	$5.9 \times 10^{-11}$
Adjusted <sup>1</sup>	66,898	0.7 (0.3, 1.1)	0.2	$8.2 \times 10^{-4}$	66,071	0.7 (0.3, 1.1)	0.2	$5.2 \times 10^{-4}$

Multiple linear regression analysis of standardized selenium intake from food in relation to birth weight percentile according to ultrasound-based [38] and customized [39] growth standards.

<sup>1</sup>Adjusted for maternal age at delivery, maternal pre-pregnancy body mass index (BMI), parity, maternal smoking during pregnancy, passive smoking, nausea during second trimester, maternal education, fibre intake, iodine intake, protein intake, n-3 intake from diet and total energy intake.

<sup>2</sup> $\beta$  per SD of selenium intake in  $\mu\text{g}/\text{day}$

The adjusted models included fewer women due to missing data on the covariates.

Abbreviations:  $\beta$  - beta, CI - confidence interval, SE - standard error.

**Table S2:** Associations between maternal dietary selenium intake and infant small for gestational age (SGA) status according to ultrasound-based and customized growth standards women from the Norwegian Mother, Father and Child Cohort study

	SGA definition according to					
	Ultrasound-based growth curves			Customized growth curves		
	n total/SGA	OR <sup>2</sup> (95% CI)	P	n total/SGA	OR <sup>2</sup> (95% CI)	P
Unadjusted	71,703/ 1,422	0.95 (0.90, 0.99)	<0.05	70,767/ 10,237	0.95 (0.93, 0.97)	$7.8 \times 10^{-6}$
Adjusted <sup>1</sup>	66,898/ 1,323	0.93 (0.84, 1.04)	0.199	66,071/9,532	0.95 (0.91, 0.99)	0.020

Multiple logistic regression analysis of standardized selenium intake from food in relation to percentiles of birth weight according to ultrasound-based [38] and customized [39] growth standards.

<sup>1</sup>Adjusted for maternal age at delivery, maternal pre-pregnancy body mass index (BMI), parity, maternal smoking during pregnancy, passive smoking, nausea during second trimester, maternal education, fiber intake, iodine intake, protein intake, n-3 intake from diet and total energy intake.

<sup>2</sup>OR per SD of selenium intake in  $\mu\text{g}/\text{day}$

The adjusted models included fewer women due to missing data on the covariates.

Abbreviations: CI - confidence interval, OR - odds ratio, SGA - small for gestational age.

**Table S3:** Associations between maternal selenium intake from supplements and infant birth weight percentile according to ultrasound-based and customized growth standards

		Birth weight percentile according to:							
		Ultrasound-based growth curves				Customized growth curves			
		n	$\beta^2$ (95% CI)	SE	P	n	$\beta^2$ (95% CI)	SE	P
Organic selenium	Unadjusted	71,698	-0.12 (-0.33, 0.09)	0.11	0.269	70,763	-0.05 (-0.26, 0.16)	0.11	0.637
	Adjusted <sup>1</sup>	66,898	-0.02 (-0.23, 0.19)	0.11	0.864	66,071	-0.05 (-0.26, 0.17)	0.11	0.683
Inorganic selenium	Unadjusted	71,698	-0.23 (-0.44, -0.02)	0.11	0.035	70,763	0.20 (-0.01, 0.41)	0.11	0.056
	Adjusted <sup>1</sup>	66,898	0.68 (0.20, 1.16)	0.68	0.005	66,071	0.83 (0.34, 1.32)	0.83	8.7 x 10 <sup>-4</sup>

Multiple linear regression analysis of standardized selenium intake from supplements in relation to birth weight percentile according to ultrasound-based [38] and customized [39] growth standards.

<sup>1</sup>Adjusted for maternal dietary selenium intake, maternal age at delivery, maternal pre-pregnancy body mass index (BMI), parity, maternal smoking during pregnancy, passive smoking, nausea during second trimester, maternal education, fibre intake, iodine intake, protein intake, n-3 intake from diet and total energy intake.

<sup>2</sup> $\beta$  per SD of selenium intake in  $\mu\text{g}/\text{day}$

The adjusted models included fewer women due to missing data on the covariates.

Abbreviations:  $\beta$  - beta, CI – confidence interval, SE – standard error.

**Table S4:** Associations between maternal selenium intake from supplements and small for gestational age according to ultrasound-based and customized growth standards

		SGA definition according to					
		Ultrasound-based growth curves			Customized growth curves		
		n	OR <sup>2</sup> (95% CI)	P	n	OR <sup>2</sup> (95% CI)	P
		total/SGA			total/SGA		
Organic selenium	Unadjusted	71,698/ 1,422	1.04 (1.00, 1.08)	0.034	70,763/ 10,237	1.00 (0.98, 1.02)	0.764
		66,898/ 1,323			66,071/ 9,532		
Inorganic selenium	Unadjusted	71,698/ 1,422	1.01 (0.95, 1.06)	0.816	70,763/ 10,237	0.99 (0.97, 1.01)	0.285
		66,898/ 1,323			66,071/ 9,532		
	Adjusted <sup>1</sup>		0.98 (0.93, 1.03)	0.425		0.98 (0.96, 1.01)	0.145

Multiple logistic regression analysis of standardized selenium intake from food in relation to percentiles of birth weight according to ultrasound-based and customized growth standards.

<sup>1</sup>Adjusted for maternal dietary intake of selenium, maternal age at delivery, maternal pre-pregnancy body mass index (BMI), parity, maternal smoking during pregnancy, passive smoking, nausea during second trimester, maternal education, fibre intake, iodine intake, protein intake, n-3 intake from diet and total energy intake.

<sup>2</sup>OR per SD of selenium intake from supplements in  $\mu\text{g}/\text{day}$

The adjusted models included fewer women due to missing data on the covariates.

Abbreviations: CI – confidence interval, OR – odds ratio, SGA – small for gestational age.

**Table S5:** Associations between maternal whole blood selenium concentrations and birth weight percentile according to ultrasound-based and customized growth standards in women from the Norwegian Mother, Father and Child Cohort study

	Birth weight percentiles according to:							
	Ultrasound-based growth curves				Customized growth curves			
	n	$\beta^2$ (95% CI)	SE	P	n	$\beta^2$ (95% CI)	SE	P
Unadjusted	2628	-1.6 (-2.7, -0.52)	0.56	0.0037	2587	-0.70 (-1.8, 0.39)	0.56	0.206
Adjusted <sup>1</sup>	2488	-0.60 (-1.7, 0.51)	0.56	0.289	2450	-0.31 (-1.5, 0.84)	0.59	0.600

Multiple linear regression analysis of log transformed selenium concentrations in maternal whole blood collected during pregnancy in relation to percentiles of birth weight according to ultrasound-based and customized growth standards.

<sup>1</sup>Adjusted for maternal age at delivery, maternal pre-pregnancy body mass index (BMI), parity, maternal smoking during pregnancy, passive smoking and maternal education.

<sup>2</sup> $\beta$  per % of blood selenium

The adjusted models included fewer women due to missing data on the covariates.

Abbreviations:  $\beta$  - beta, CI – confidence interval, SE – standard error.

**Table S6:** Associations between maternal selenium concentrations in whole blood and infant small for gestational age (SGA) status according to ultrasound-based and customized definitions in 2,628 women in the Norwegian Mother, Father and Child Cohort study

	SGA definition according to					
	Ultrasound-based growth curves			Customized growth curves		
	n total/SGA	OR <sup>2</sup> (95% CI)	P	n total/SGA	OR <sup>2</sup> (95% CI)	P
Unadjusted	2628/ 32	0.36 (0.07, 1.95)	0.243	2587/309	1.1 (0.96, 1.2)	0.179
Adjusted <sup>1</sup>	2488/ 30	0.37 (0.06, 2.2)	0.282	2450/293	1.1 (0.93, 1.2)	0.442

Multiple logistic regression of log transformed maternal selenium concentrations in whole blood collected during pregnancy in relation to small for gestational age according to ultrasound-based and customized growth standards..

<sup>1</sup>Adjusted for maternal age at delivery, maternal pre-pregnancy body mass index (BMI), parity, maternal smoking habits during pregnancy, passive smoking and maternal education.

<sup>2</sup>OR per % of blood selenium

The adjusted models included fewer women due to missing data on the covariates.

Abbreviations: CI – confidence interval, OR – odds ratio, SGA – small for gestational age.