



Amendment 2021 concerning the CFN Report «Ernährung in den ersten 1000 Lebenstagen»

Adaptation of Swiss guidelines for weight gain in pregnancy

In 2009, the NAM (National Academies of Medicine, former IOM) published updated recommendations for weight gain in pregnancy. As in the previous version, the recommendations were based on the BMI of the mother prior to pregnancy. Already at the time of publication in 2009 the authors noted that for obese pregnant women (BMI > 30) the literature was scarce. The authors of the FCN report «Ernährung in den ersten 1000 Lebenstagen» have recommended in 2015 to follow the IOM recommendations in all BMI groups.

In the past ten years the IOM guidelines have been analyzed in various populations and in summary, the recommendations for women being underweight (BMI < 18.5), normal weight (18.5 – 24.9) and overweight (25 – 29.9) have been confirmed.

Meanwhile several large meta-analyses have summarized the available studies of weight gain in obese pregnant women. As this population is unfortunately increasing in the past years, the available data is large. For this specific group it is important to find a balance between sufficient caloric and micronutrient intake to avoid SGA infants and the risk of inadequate weight gain leading to LGA infants, increased risk of cesarean delivery and postpartum weight retention. The following meta-analyses were included in the considerations of this amendment:

Authors	Obesity Class* I (n)	recommended weight gain	Obesity Class II (n)	recommended weight gain	Obesity Class III (n)	recommended weight gain
Faucher et al (2015)	291'045	5 to 9 kg	161'145	1 to <5kg	104'159	no weight gain
LifeCycle Project (2019)	11'992	2 to <6kg	3'284	-0.5 to <4kg	969	0 to <6kg
DGGG-AGG (2019)		0 to 5kg		0 to 5kg		0 to 5kg
RCOG (2018)	no recommendations, focus on healthy diet					



* Definition of obesity classes: Class I = BMI 30 to 34.9, Class II = BMI 35 to 39.9 and Class III = BMI \geq 40

Most studies considered the following outcomes:

- Preeclampsia, gestational hypertension
- Cesarean section
- Gestational diabetes
- Preterm birth
- SGA, LGA
- Childhood underweight and obesity

Postpartum weight retention was not included, mostly due to lack of data. Haugen et al. showed in a large, national, prospective study of more than 56'000 Norwegian women that a weight gain in pregnancy above the IOM recommendations increased the risk significantly for postpartum weight retention of more than 2 kg at 18 months after delivery (adjusted odds ratio of 1.54 to 3.06, depending on BMI class and parity). Therefore, the quality of data for recommending the best weight gain in pregnancy needs to be improved by adding weight retention as an independent variable in future studies.

Honoring these new findings, the expert committee recommends adapting the current weight gain recommendations as follows:

- No change in recommendation for underweight, normal weight and overweight women, continue to use the IOM recommendations.
- Women with BMI obesity class I to III should aim for these weight gain recommendations:
 - o Obesity Class I: 5 to 9 kg
 - o Obesity Class II: 1 to <5kg
 - o Obesity Class III: no weight gain.

The expert committee would like to emphasize the importance of a healthy diet and adequate physical exercise in pregnancy to empower all pregnant women.

References:

Denison FC, et al. on behalf of the Royal College of Obstetricians and Gynaecologists (2018). Care of Women with Obesity in Pregnancy. Green-top Guideline No. 72. BJOG

DGGG (2019), S3-Leitlinie Adipositas und Schwangerschaft, 1. Auflage, Patientenleitlinie, AWMF-Registernummer: 015-081, 2019

Faucher MA, Barger MK. (2015) Gestational weight gain in obese women by class of obesity and select maternal/newborn outcomes: A systematic review. Women and Birth 28: e70-79

Haugen et al. (2014) Associations of pre-pregnancy body mass index and gestational weight gain with pregnancy outcome and postpartum weight retention: a prospective observational cohort study. BMC Pregnancy and Childbirth 14:201

LifeCycle Project – Maternal Obesity and Childhood Outcomes Study Group et al. (2019). [Association of Gestational Weight Gain With Adverse Maternal and Infant Outcomes](#). JAMA. 321(17): 1702-1715

Abbreviations:

BMI Body Mass Index (kg/m²)

DGGG Deutsche Gesellschaft für Gynäkologie und Geburtshilfe

FCN Federal Commission for Nutrition (Eidg. Ernährungskommission)

IOM Institute of Medicine

LGA Large for gestational age babies

RCOG Royal College of Obstetricians and Gynaecologists

SGA Small for gestational age babies

List of experts at round table «Recommendations for weight gain in pregnancy»

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