Indian women suffer a very high burden of nutritional deficiency; but the prevalence of overweight and obesity are also on the rise. This study aimed to examine the effects of lifestyle and diet factors on change of Body Mass Index (BMI) in a longitudinal, community-based sample of married Indian women.

325 women (15–49 years of age) were purposively chosen from 1998 to 1999 National Family Health Survey (NFHS-2) Delhi Samples and were followed-up after 4 years. Information on women’s BMI, dietary habits and lifestyle was collected through structured and semi-structured questionnaires. Effect of lifestyle (determined by high, medium and low sedentary lifestyle) and diet (frequency of consumption of several food items, and specific fatty / sugary items) on BMI change of >25% were estimated using multivariate logistic regression after adjusting for age, education, religion, ethnicity, household standard of living, and previous BMI status.

A high sedentary lifestyle (aOR 2.63; 95% CI 1.29 to 5.35) emerged as the main predictor of increase in BMI of women in the adjusted multivariate analysis even after controlling for all the possible confounders. However, previous BMI status was negatively associated with weight gain. Obese women were significantly less likely to gain more weight (aOR 0.26; 95% CI 0.11 to 0.65).

Consuming a diet high in sugar and fat and a high level of sedentary lifestyle was associated with larger gains in BMI among Indian women. More epidemiologic research with better measures of diet and lifestyle is needed to validate the findings in similar other settings.
associated with fruit and vegetable intake were included. Random effects models were used to estimate summary RRs.

**Results** Nineteen cohort studies were included in the meta-analysis. The summary RR for the highest vs the lowest intake was 0.92 (95% CI 0.86 to 0.99) for fruit and vegetables combined, 0.90 (95% CI 0.85 to 0.98) for fruit and 0.91 (95% CI 0.86 to 0.96) for vegetables. The inverse associations appear to be restricted to colorectal cancer. In linear dose-response analysis only intake of vegetables was associated with colorectal cancer risk, summary RR 0.98 (95% CI 0.97 to 0.99) per 100 g per day. However, significant inverse associations emerged in non-linear models for fruits ($p_{\text{non-linearity}} < 0.001$) and vegetables ($p_{\text{non-linearity}} = 0.001$). The greatest risk reduction was observed when increasing intake from very low levels of intake. There was generally little evidence of heterogeneity in the analyses and there was no evidence of small-study bias.

**Conclusion** This meta-analysis indicates that there is a weak, but statistically significant non-linear inverse association between fruit and vegetable intake and colorectal cancer risk.

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**03-3.5 REVISITING THE RISK OF COELIAC DISEASE IN CHILDREN BORN SMALL FOR GESTATIONAL AGE: A QUASI-EXPERIMENTAL FAMILY-BASED APPROACH**

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**Introduction** Celiac disease (CD) is a chronic small bowel disease with a strong heritability. Several perinatal conditions are today considered as risk factors for CD in children. One of these conditions is being born small for gestational age (SGA). However, if the association between SGA and CD risk in children is causal is unknown. Therefore, we aimed to apply a quasi-experimental family-based (QEFB) design that is a powerful strategy for studying causal relationships.

**Methods** Using the Swedish Medical Birth Registry linked to a number of other national databases we identified all singleton children born in Sweden between 1987 and 1993 ($n = 781,624$). We applied a QEFB design, and compared sibling with discrepant exposure (ie, being or not SGA) in relation to their risk of CD from birth until they were 2-year old. We also performed classical logistic regression analyses adjusting for known risk factors for CD but without the QEFB design.

**Results** In the classical adjusted logistic regression analysis, we found an association between being SGA and CD risk: OR 1.34 95% CI 1.03 to 1.74. However when applying the QEFB design and conditional logistic regression this association disappeared: OR 1.05 95% CI 0.53 to 2.06.

**Conclusion** Our results suggest that previous finding indicating an association between being SGA and CD risk were confounded. These previous results might be explained by the fact that the offspring from mothers with CD are frequently SGA and, because the strong heritability, they have also a higher risk for CD.