<table>
<thead>
<tr>
<th>Study Number</th>
<th>First Author</th>
<th>Title</th>
<th>Year</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Owen CG</td>
<td>Effect of infant feeding on the risk of type 2 diabetes in later life</td>
<td>2002</td>
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<tr>
<td>2</td>
<td>McArthur DB</td>
<td>Heart healthy eating behaviors of fourth and fifth grade students</td>
<td>2006</td>
</tr>
<tr>
<td>3</td>
<td>None Q13 (RF9) USA</td>
<td>Multivariate analysis of dietary factors and diabetes during pregnancy on breastfeeding</td>
<td>1999</td>
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</tbody>
</table>

**Examined Observational Relationship Assessed Outcomes Measured Treatment Effect and Statistical Significance Main Reported Findings by Critical Question Limitations of Studies Reviewed**

**Breastfeeding and type 2 diabetes**

**OR for developing type 2 diabetes**

- 7 studies (6 in adults, 1 in adolescents) related breastfeeding to a lower risk of type 2 diabetes.
- A longer duration of breastfeeding appeared to show a slightly greater protective effect.
- 28 of 29 study estimates related breastfeeding to a lower risk of obesity.

**Interventions on heart healthy eating behaviors**

- Studies on humans (including children, adults, and growth) examined the influence of initial dietary intervention features and among different populations.
- Studies in infants: 4 studies measured blood glucose within the first 4 wk of life (7 after exclusive breastfeeding).

**In infants, 0.90 (95% CI: 0.87 - 0.92) for young children, 0.66 (95% CI: 0.60- 0.72)**

**Concentrations of blood glucose and serum insulin than were reported for formula feeding**

- 6 studies (4 in adults, 2 in children) reported on the association between infant feeding and fasting insulin. 4/6 studies showed lower serum insulin concentrations in the breastfed subjects than in the formula-fed subjects.
- The mean insulin difference was stronger in 5 studies that reported exclusive feeding (-0.85 pmol/L; 95% CI: -4.13 to 2.42 pmol/L; P: 0.01).
- No marked evidence of heterogeneity was indicated: 25% F = 1 degrees of freedom in the numerator (i.e., 2 vs. 1), and 75.42% F = 2 degrees of freedom.

**Mean age (SD): 9.92 yr**

- Studies conducted with human subjects allowed diet to be freely chosen by participants.
- Studies not comparing diabetic status or other outcomes (Q: 75.42) indicated: 25% marginally lower in the breastfed subjects than in the formula-fed subjects.
- 77% of studies reported a significant effect on F & V intake.

**Mean pooled percentage difference in change in total fat intake**

- 87% on saturated fat intake.
- Insufficient racial/ethnic representation.

**Publication bias**

- No clear evidence that the protective effect of breastfeeding is altered with advancing age.
- Low: 42% to 1%; P: 0.13, a difference which was similar in adults and children. No evidence of an age effect for fruit and vegetable intake.

**No patients with Type 2 diabetes**

- In adults and children without diabetes, insulin concentrations were lower in the breastfed subjects than in the formula-fed subjects, although glucose concentrations were similar.
- However, glucose concentrations were significantly lower in the breastfed subjects than in the formula-fed subjects.

**Studies not comparing diabetic status or other outcomes**

- Studies reporting results based on dietary behavior texts allowed diet to be freely chosen by participants.
- No patients with Type 2 diabetes.
- Studies on humans (including children, adults, and growth) examined the influence of initial dietary intervention features and among different populations.