Research in support of the pregnant and lactating women

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Maternal Undernutrition

• Maternal undernutrition contributes to 800,000 neonatal deaths annually through small for gestational age births; stunting, wasting
• Maternal micronutrient deficiencies are estimated to underlie nearly 3·1 million child deaths annually.
## Pregnancy

<table>
<thead>
<tr>
<th>Supplementation</th>
<th>Effects</th>
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<tbody>
<tr>
<td>Folic acid</td>
<td>Significant effects: mean birth weight, incidence of megaloblastic anaemia</td>
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<tr>
<td>Iron</td>
<td>Significant effects: low birth weight, birth weight, serum haemoglobin concentration at term anaemia at term, iron deficiency, iron deficiency anaemia, side effects</td>
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<tr>
<td>Iron-folate</td>
<td>Significant effects: birth weight, anaemia at term serum haemoglobin concentration at term</td>
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<tr>
<td>MMN supplementation</td>
<td>Significant effects: low birth weight, SGA, preterm birth NS: miscarriage, maternal mort, perinatal mortality, stillbirths, neonatal mortality Insufficient data: neurodevelopment</td>
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<tr>
<td>Calcium supplementation</td>
<td>Significant effects: pre-eclampsia, birth weight, preterm birth NS: perinatal mortality, low birth weight, neonatal mortality</td>
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<tr>
<td>Iodine through iodisation of salt</td>
<td>Significant effects: cretinism at 4 years of age, developmental scores 10–20% higher in young children, birth weight</td>
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<tr>
<td>Maternal supplementation with balanced energy protein</td>
<td>Significant effects: SGA, stillbirths, birth weight NS: Bayley mental scores at 1 year</td>
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</tbody>
</table>
Nutrition of the lactating mother

• Drink to thirst (Moore 1992)
• Weight loss postpartum is more likely to occur among breastfeeding women (Ongyango 2011)
• No prescription for a set calorie level (IOM FNB 2005)
• Taking a vitamin supplement is recommended but not to exceed more than 20% of RDI

Nutrition of the lactating mother

• Breast milk is affected by low maternal status: thiamin, riboflavin, Vitamins B6 & B12, Vitamin D, A and selenium
• Calcium
• Special situations: heavy exercise, vegetarians, young, malnourished, multiples, pregnancy while breastfeeding
Research Gaps

- Effect of maternal nutrition on healthy fetal growth and development.
- How to best feed preterm infants.
- Composition of human milk
- Maternal nutritional needs to support extended lactation
- Foods to complement breastfeeding at least through the first year of life.