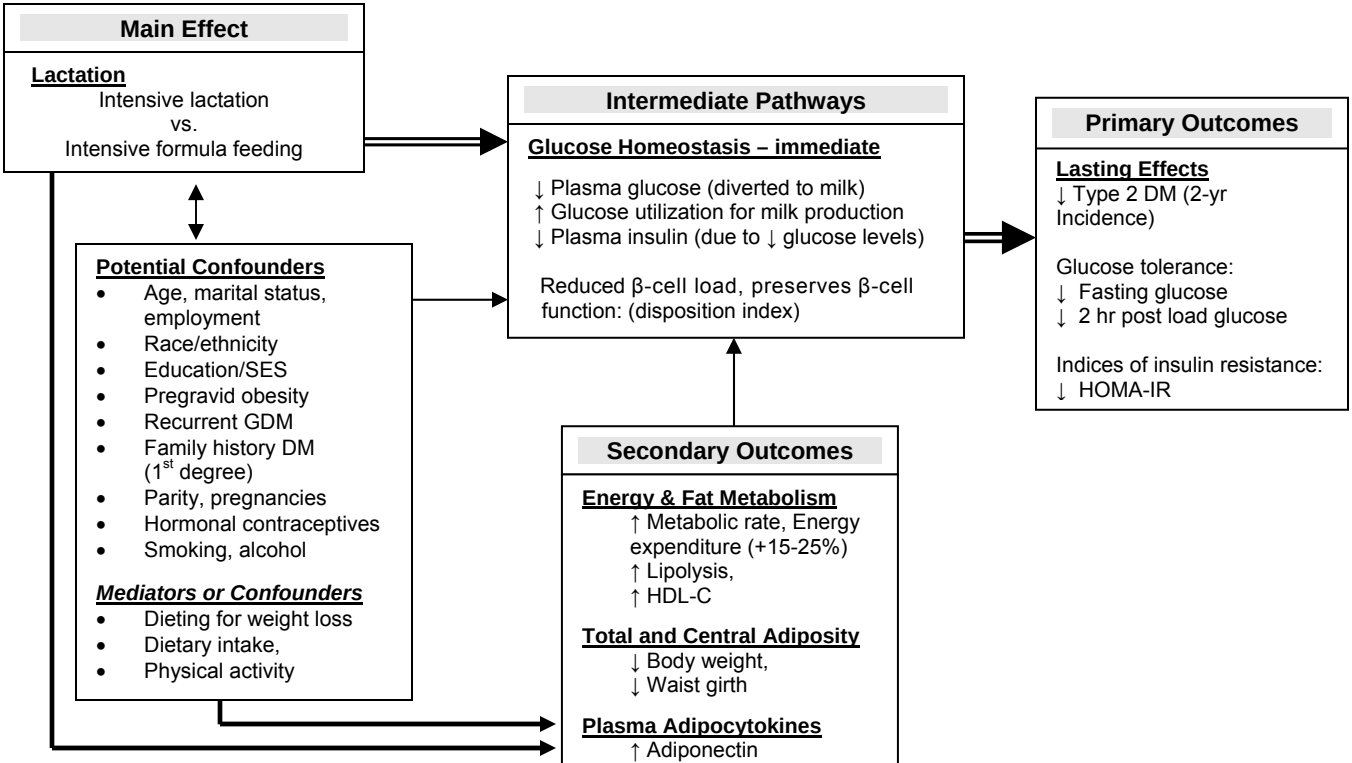
Main Effect
Lactation
Intensive lactation
vs.
Intensive formula feeding
Intermediate Pathways
Glucose Homeostasis – immediate
↓ Plasma glucose (diverted to milk)
↑ Glucose utilization for milk production
↓ Plasma insulin (due to ↓ glucose levels)
Reduced β-cell load, preserves β-cell function: (disposition index)
Primary Outcomes
Lasting Effects
↓ Type 2 DM (2-yr Incidence)
Glucose tolerance:
↓ Fasting glucose
↓ 2 hr post load glucose
Indices of insulin resistance:
↓ HOMA-IR
Potential Confounders
Age, marital status, employment
Race/ethnicity
Education/SES
Pregravid obesity
Recurrent GDM
Family history DM (1st degree)
Parity, pregnancies
Hormonal contraceptives
Smoking, alcohol
Mediators or Confounders
Dieting for weight loss
Dietary intake,
Physical activity
Secondary Outcomes
Energy & Fat Metabolism
↑ Metabolic rate, Energy expenditure (+15-25%)
↑ Lipolysis,
↑ HDL-C
Total and Central Adiposity
↓ Body weight,
↓ Waist girth
Plasma Adipocytokines
↑ Adiponectin