



## JBI Systematic Review Title Registration Form

**Title:** The effectiveness of interventions that reverse prediabetes to normoglycaemia in children and adolescents: a protocol for a systematic review

**Centre:** Edith Cowan University

### Primary Reviewer

**Name:** Maggie Zgambo

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**Question:** What interventions are effective in reversing prediabetes to normoglycaemia in children and adolescents?  
What is the effectiveness of the identified interventions on altered glucose metabolism?

### PICO

**Population:** Children from 0-17 years old with prediabetes

**Intervention:** Intervention (quantitative - effectiveness)

Lifestyle (physical activity, diet, diabetes education) and pharmacotherapy,

**Comparator:** Comparator (quantitative - effectiveness)

No intervention or placebo

**Outcome:** Outcome & Context (comprehensive)

Normoglycaemia is the primary outcome measure. According to WHO, altered glucose metabolism means an IGF identified through FPG of 6.1-6.9 mmol/L (110 to 125 mg/dL) and IGT of 7.8-11.0 mmol/L (140-200 mg/dL) recorded post intake of 75g of oral glucose or a combination of the two (World Health Organization, 2006). However different biomarkers to identify blood glucose anomalies are used across authors. For instance, some authors have included insulin resistance and glycated haemoglobin (HbA1c) between 5.7% and 6.4% (Andes et al., 2020; Geva et al., 2019; International Expert Committee, 2009; Kostopoulou et al., 2021). Based on these, our measures of interest will include FPG, plasma glucose, HbA1c and insulin resistance interpreted as normal.

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