PubMed Search using the keywords: trans fatty acids, TFA, insulin resistance, insulin sensitivity, glucose tolerance, glucose, insulin, metabolic syndrome, and diabetes mellitus

Records: Total: 925, Reviews: 186

All 925 records were screened by KNA and SMK

26 full text articles were assessed for eligibility by KNA and SMK

15 studies were considered for qualitative and quantitative synthesis

7 studies included in quantitative synthesis (meta-analysis)

All these studies were RCTs that reported all parameters needed to perform meta-analysis

7 studies were included only in qualitative synthesis (in Discussion section)

All these were cohort studies. Some of the data needed to perform meta-analysis were impossible to recover, even after contacting the authors.

Review articles, editorials, viewpoints, commentaries, in vitro and in vivo animal studies were excluded

Studies that did not provide data on the effect of TFA consumption on glucose or insulin were excluded

1 study was excluded since TFA intake was not reported