



Table 4-C-III-1 Summary of Findings

Results from studies examining what combinations of food intake (assessed using reduced rank regression) explain the most variation in the risk of type 2 diabetes

Study / Quality Rating / Study Design / Cohort / Location	Study Description	Response Variables	Dietary Pattern	Results
Liese, 2009 Positive Quality PCS Insulin Resistance Atherosclerosis Study United States	Examined the relationship between dietary patterns and incidence of T2D	Plasminogen Activator Inhibitor-I (PAI-1) Fibrinogen	(+) Red meats, low-fiber bread and cereal, dried beans, fried potatoes, tomato vegetables, eggs, cheese and cottage cheese (-) Wine	<i>T2D incident cases:</i> 144 (crude incidence of 162 per 1,000) <i>Comparing the highest and lowest quintiles of food pattern scores (based on Model 3):</i> OR=4.51 (95% CI: 1.60 to 12.69), P _{trend} =0.0173 <i>Results stratified by obesity status:</i> The association was strongly present in non-obese subjects (P _{trend} =0.02); it was not for obese individuals (P _{trend} =0.77).
McNaughton, 2008 Positive Quality PCS Whitehall II Cohort United Kingdom	Examined the relationship between dietary patterns and incidence of T2D	Homeostatic model assessment of Insulin resistance index (HOMA-IR)	(+) Low-calorie/diet soft drinks, onions, sugar-sweetened beverages, burgers and sausages, crisps and other snacks and white bread (-) Medium-fiber/high-fiber breakfast cereals, jam, French dressing/vinaigrette and whole meal bread	<i>T2D (77,440 person-years) incident cases:</i> 427 <i>DP Score and risk of T2D, high quartiles vs. low quartiles (based on Model 8):</i> HR=1.51 [95% CI: 1.10 to 2.09]; P _{trend} <0.0001
Imamura, 2009 Positive Quality PCS Framingham Offspring United States	Examined the relationship between dietary patterns and incidence of T2D, and conducted confirmatory and exploratory studies using RRR to determine the generalizability of DPs from prior studies conducted in different cohorts (NHS, EPIC, WS) to predict T2D and to compare internally and externally derived scores on the predictability of T2D.	<i>FOS:</i> BMI, fasting glucose, triglycerides, HDL-cholesterol and hypertension <i>NHS:</i> Inflammatory cytokines <i>EPIC:</i> HDL, glycated hemoglobin, C-reactive protein, adiponectin <i>WS:</i> HOMA-IR	(+) Meat, processed meat, eggs, margarine, fried products, refined grains and caloric/non-caloric soft drinks (-) Tea, whole grains	<i>HRs for T2D for exploratory and confirmatory scores, respectively:</i> <ul style="list-style-type: none"> • <i>NHS:</i> HR=1.58 (95% CI: 1.37, 1.83); 1.44 (95% CI: 1.25, 1.66) • <i>EPIC:</i> HR=1.60 (95% CI: 1.39, 1.83); 1.14 (95% CI: 0.99, 1.32) • <i>WS:</i> HR=1.60 (95% CI: 1.39, 1.83); 1.16 (95% CI: 1.00, 1.35) <i>Ratios of the confirmatory and exploratory scores:</i> <ul style="list-style-type: none"> • <i>EPIC:</i> HR=0.76 [95% CI: 0.64, 0.90], P=0.027 • <i>WS:</i> HR=0.75 [95% CI: 0.62, 0.90], P=0.021 • <i>NHS:</i> HR=0.91 [95% CI: 0.82, 1.01], P=0.16 <i>DPs and prediction of T2D:</i> <ul style="list-style-type: none"> • DP derived from NHS as predictive as DP derived from FOS • DP derived from EPIC and WS were less predictive

Key: (+) Higher intake. (-) Lower intake.