

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
<p>Liese, 2009</p> <p>Positive Quality</p> <p>PCS</p> <p>Insulin Resistance Atherosclerosis Study</p> <p>United States</p>	<p>Examined the relationship between dietary patterns and incidence of T2D</p>	<p>Plasminogen Activator Inhibitor-I (PAI-1), Fibrinogen</p>	<p>(+) red meats, low-fiber bread and cereal, dried beans, fried potatoes, tomato vegetables, eggs, cheese, and cottage cheese</p> <p>(-) wine</p>	<p>T2D incident cases = 144 (crude incidence of 162 per 1000)</p> <p>Comparing the highest and lowest quintiles of food pattern scores (based on Model 3): OR = 4.51 (95% CI = 1.60-12.69), P for trend = 0.0173</p> <p>Results stratified by obesity status: The association was strongly present in non-obese subjects (P for trend = 0.02), it was not for obese individuals (P for trend = 0.77).</p>
<p>McNaughton, 2008</p> <p>Positive Quality</p> <p>PCS</p> <p>Whitehall II Cohort</p> <p>United Kingdom</p>	<p>Examined the relationship between dietary patterns and incidence of T2D</p>	<p>Homeostatic Model assessment of Insulin resistance index (HOMA-IR)</p>	<p>(+) low-calorie/diet soft drinks, onions, sugar-sweetened beverages, burgers and sausages, crisps and other snacks, and white bread;</p> <p>(-) medium-/high-fiber breakfast cereals, jam, French dressing/ vinaigrette, and whole meal bread</p>	<p>T2D (77,440 person-years) incident cases = 427</p> <p>DP Score and risk of T2D, high vs. low quartiles (based on Model 8): HR = 1.51 [95% CI 1.10-2.09]; P for trend <0.0001</p>
<p>Imamura, 2009</p> <p>Positive Quality</p> <p>PCS</p> <p>Framingham Offspring</p> <p>United States</p>	<p>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 (NHS, EPIC, WS) to predict T2D and to compare internally and externally derived scores on the predictability of T2D.</p>	<p>FOS: BMI, fasting glucose, triglycerides, HDL cholesterol, and hypertension</p> <p>NHS: Inflammatory cytokines;</p> <p>EPIC: HDL, glycated hemoglobin, C-reactive protein, adiponectin;</p> <p>WS: HOMA-IR</p>	<p>(+) meat, processed meat, eggs, margarine, fried products, refined grains, and caloric/noncaloric soft drinks</p> <p>(-) tea, whole grains</p>	<p>HRs for T2D for exploratory and confirmatory scores respectively:</p> <p>NHS: HR = 1.58 (95% CI:1.37, 1.83); 1.44 (95% CI: 1.25, 1.66)</p> <p>EPIC: HR = 1.60 (95% CI: 1.39, 1.83); 1.14 (95% CI: 0.99, 1.32)</p> <p>WS: HR = 1.60 (95% CI: 1.39, 1.83); 1.16 (95% CI: 1.00, 1.35)</p> <p>Ratios of the confirmatory and exploratory scores:</p> <p>EPIC: HR = 0.76 [95% CI 0.64, 0.90], P=0.027</p> <p>WS: HR = 0.75 [95% CI 0.62, 0.90], P=0.021</p> <p>NHS: HR = 0.91 [95% CI 0.82, 1.01], P=0.16</p> <p>DPs and prediction of T2D: DP derived from NHS as predictive as DP derived from FOS. DP derived from EPIC and WS were less predictive.</p>

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