Diabetes Mellitus
Tomato/Tomato-based foods and Disease Risk

Main findings

- Data are limited but may suggest a beneficial relationship between consuming tomato/tomato-based products and diabetes. Findings are based on effects of tomato/tomato products on glycation variables, lipids, oxidative stress and insulin.

Summary of studies and outcomes

- Number of studies = 6
- Risk estimates (RE) = 8
  - (-) = 4
  - N = 3
  - (+) = 1
- Risk estimates by Tomato or Lycopene category
  - $\sqrt{GT}$ G. Tom = 0 (-), 1 (N), 1 (+)
  - $\sqrt{PT}$ P. Tom = 3 (-), 2 (N)
  - $\sqrt{FT}$ F. Tom =
  - $\sqrt{Lyco}$ Lyco = 1 (-)plasma

Table: Relationship between Tomato/Tomato-based Foods and Diabetes risk

Study Type	N= studies	NEGATIVE ASSOCIATION (protective)					NEUTRAL ASSOCIATION (no associated risk or benefit)					POSTIVE ASSOCIATION (risk factor)				
Diabetes		Sample size, n=					Sample size, n=					Sample size, n=				
		≤100	101-200	201-500	501-1000	≥1000	≤100	101-200	201-500	501-1000	≥1000	≤100	101-200	201-500	501-1000	≥1000
RCT	2	√$_{PT}$					√$_{PT}$										
Interv	1	√$_{PT}$															
PC	1													√$_{GT}$			
CC	2	√^$_{PT}$	√*$_{PL}$				√^$_{PT}$	√*$_{GT}$									
Cross Sec	0																
Eco	0																

√*^ : *Indicates that some endpoints in single study were neutral while others showed improvement for reduced risk for disease.*