

# Bone Dietary Lycopene and Disease Risk

## Main findings

- Data suggest a beneficial relationship between dietary sources of lycopene and bone mass. Studies shown here, albeit only 3, used clinically relevant endpoints of measure (bone mineral density, bone mass and fracture incidence), strengthening the relationship described.

## Summary of studies and outcomes

- Number of studies = 3
- Risk estimates (RE) = 4
  - (-) = 3
  - N = 1
  - (+) = 0
- Risk estimates by Tomato or Lycopene category
  - √GT G. Tom =
  - √PT P. Tom =
  - √FT F. Tom =
  - √Lyco Lyco = 3 (-), 1 (N)

**Table: Relationship between Dietary Lycopene and Bone Health**

Study Type	N= studies	NEGATIVE ASSOCIATION (protective)					NEUTRAL ASSOCIATION (no associated risk or benefit)					POSTIVE ASSOCIATION (risk factor)				
		Sample size, n=					Sample size, n=					Sample size, n=				
Bone		≤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	0															
Interv	0															
PC	2				√ <sub>Lyco</sub> √ <sub>Lyco</sub>											
CC	0															
Cross Sec	1			√ <sub>Lyco</sub>						*√ <sub>Lyco</sub>						
Eco	0															

√<sub>Lyco</sub> – Represents dietary lycopene

\*√<sub>Lyco</sub> – Framingham Osteoporosis study – conducted PC and CS analyses.