



Disclosure

- On Scientific Advisory Board for Virta
- Was a vegetarian for > 30 years
- Used to advocate low-fat diets
- Strong family history of diabetes/pre-diabetes
- Ultramarathon runner following a low-carb diet

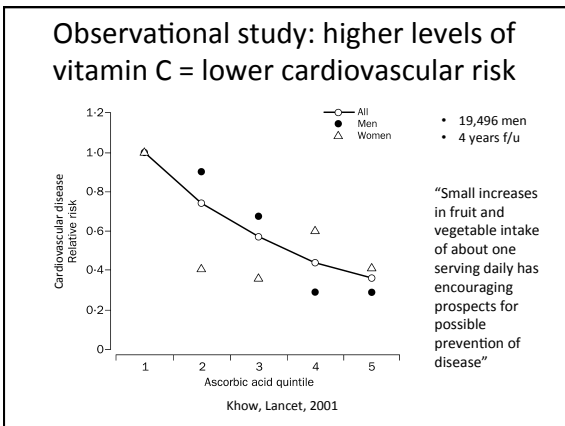
Learning objectives

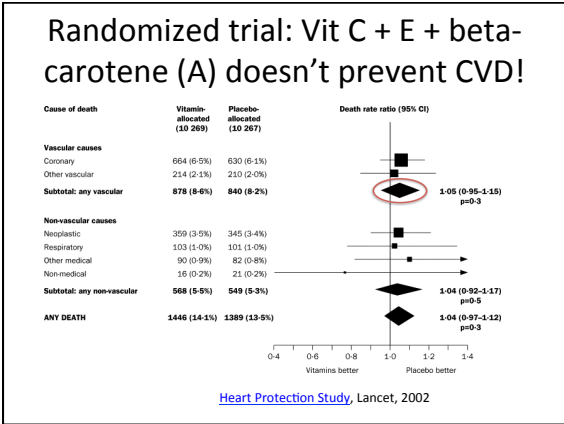
- Be able to better assess the reliability of nutrition studies
- Familiar with metabolic syndrome
- Understand glycemic index (GI)
- Understand low-carb versus low-fat diets
- Know the evidence for whole food diets and diet patterns in health



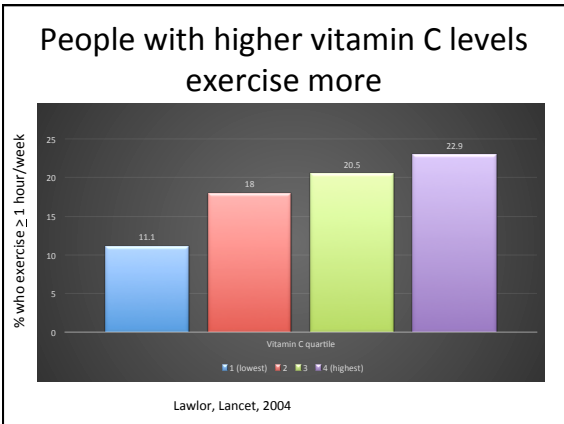
Nutrition science is challenging

- High quality studies are expensive and hard to do
- Media loves nutrition stories– even with weak science
- We all eat
- We all have personal beliefs and preferences



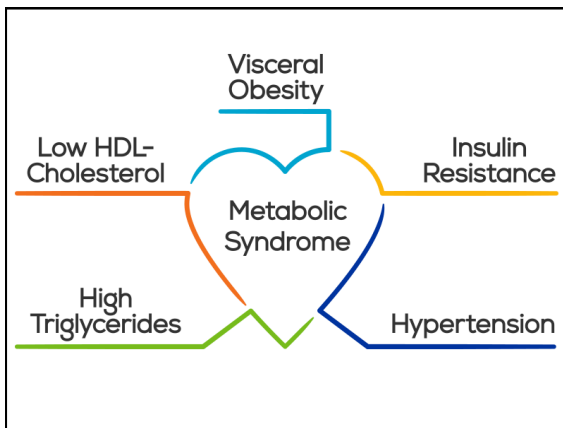


Which study do you trust more?

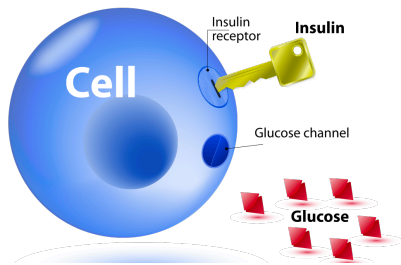


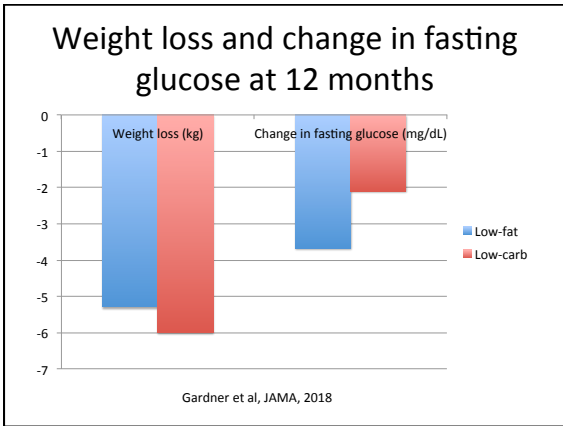
Observational studies versus randomized, controlled trials

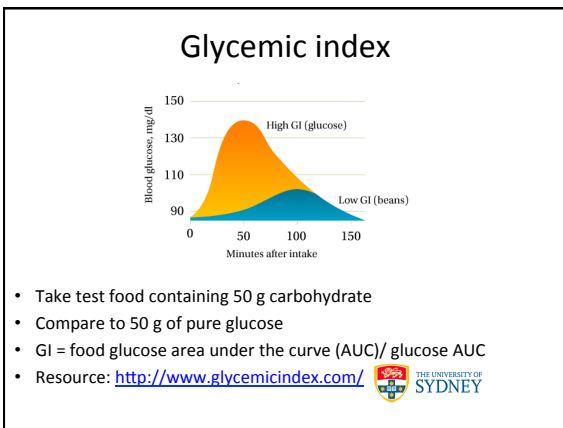
- Observational studies are:
 - Less expensive
 - Don't require people to change eating behavior
 - More susceptible to bias
- RCTs are more reliable- but harder to do



Insulin resistance: a key issue in metabolic health









What's the glycemic index?



- Farro GI = 40

Take home messages

- Focus on food quality over calorie counting may work
- For most people without diabetes, a low GI diet may work as well as low carb for weight

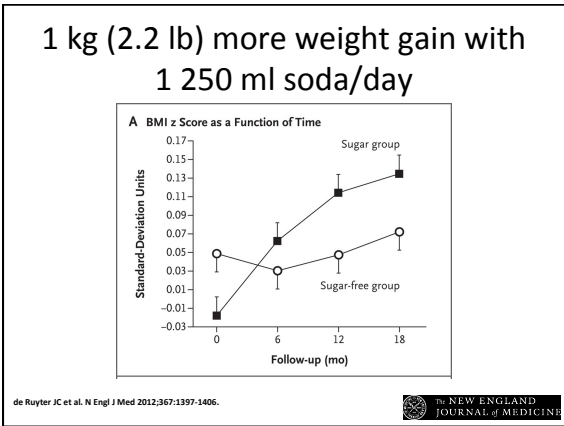
Dutch study of sugar-sweetened soda

- 641 normal weight children from 5 to 11 y/o
- 18 month study





versus

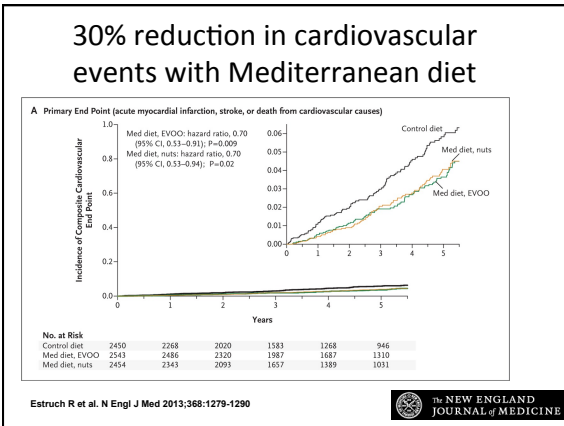




PREDIMED study

- 7447 people with high CV risk in Spain

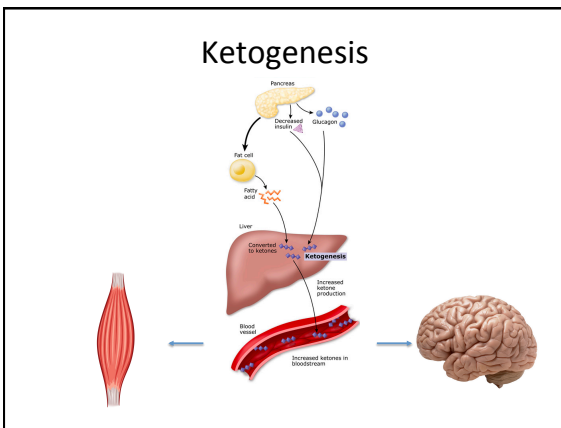

versus




Take home messages

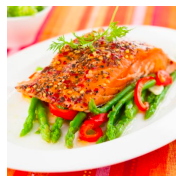
- A diet high in whole foods and healthy fats reduced CV disease– and cancer
- Mediterranean diet was easier to adhere to

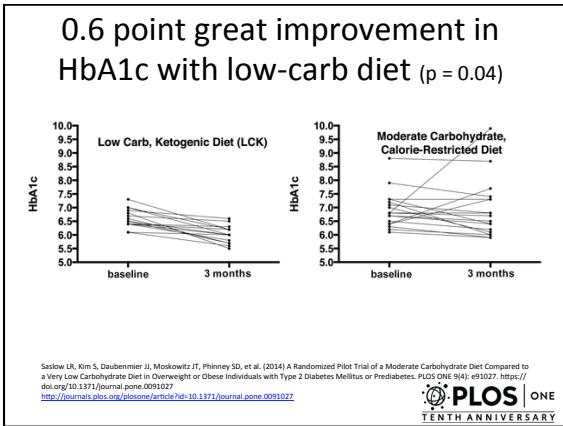
Ketogenesis

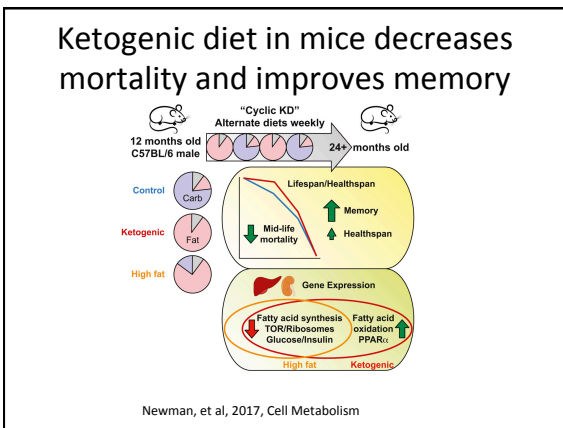


Osher center low-carb trial

- RCT with people with diabetes or pre-diabetes
- Randomized to:
 - Medium carb diet: n = 18
 - Low-carb diet: n = 16







- ### Overall conclusions
- Pay attention to study design
 - Emphasize whole foods, low GI for metabolic health
 - Many traditional eating patterns may work
 - Lower carb diets may be good for metabolic health in diabetes
