



**12° Congresso Nazionale AME**  
**6<sup>th</sup> Joint Meeting with ACE**  
Update in Endocrinologia Clinica



Bari,  
7-10 novembre 2013

# Obesità: Come Prevenirla nell' Adulto



Ambulatorio di Nutrizione Clinica

U.O.C. Oncologia Medica



Dipartimento Scienze Biomediche e Oncologia Umana

**Giovanni De Pergola**

7-10 novembre 2013

Bari, Sheraton Nicolaus Hotel & Conference Center

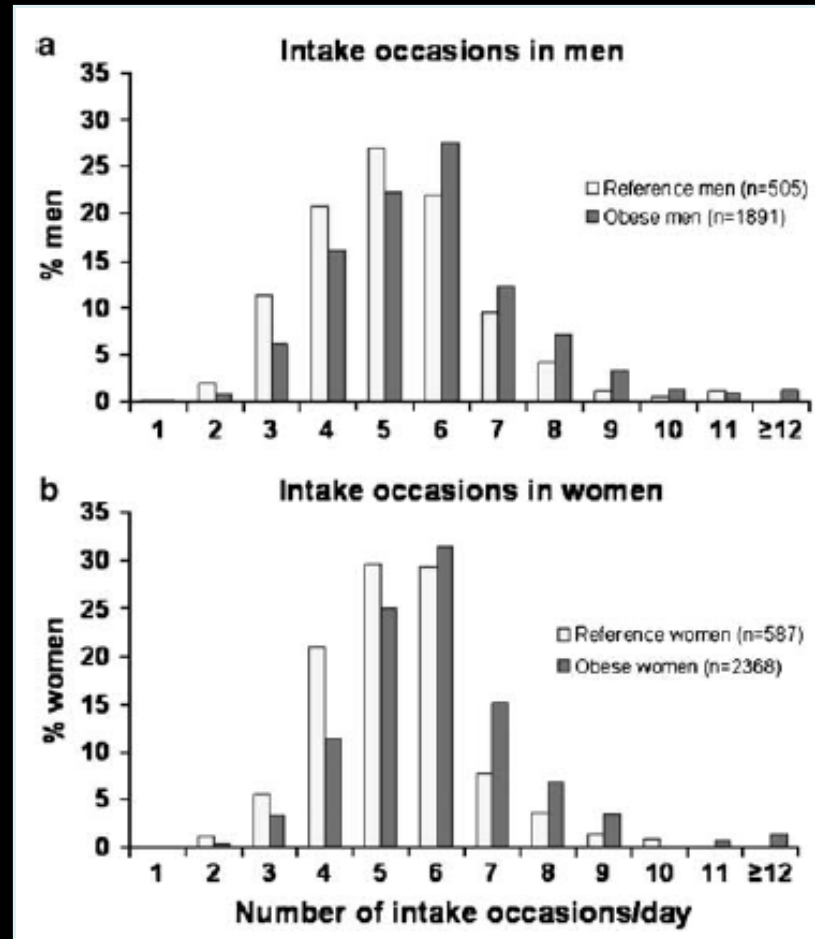


# Snacking frequency in relation to energy intake and food choices in obese men and women compared to a reference population



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## Number of intake occasions per day in obese and reference men and women



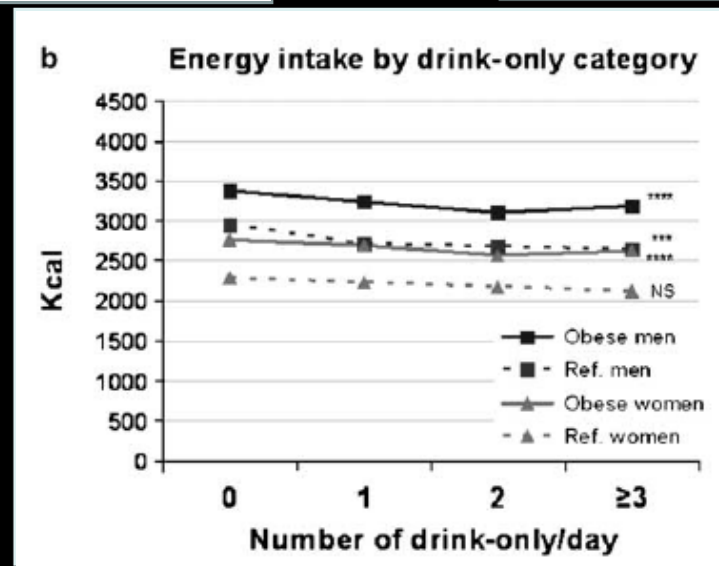
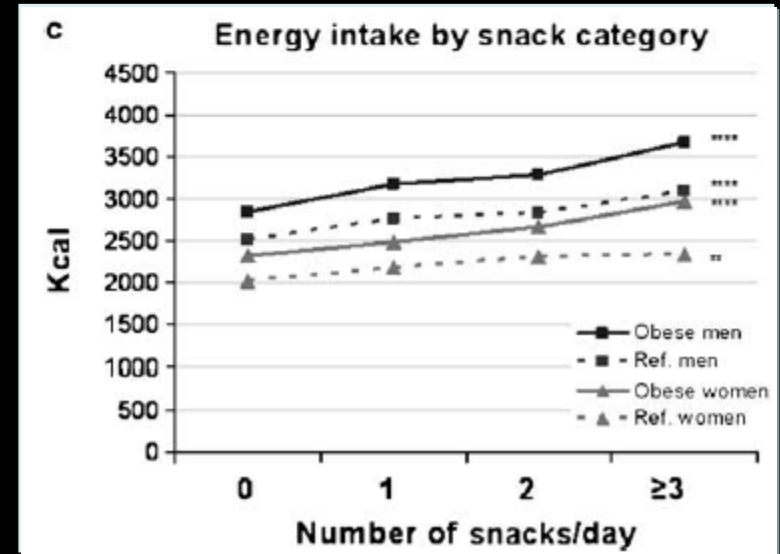
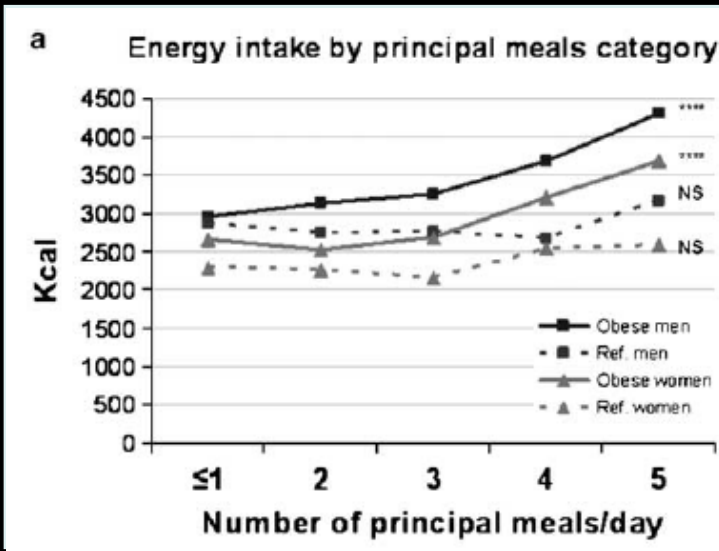
Berteus Forslund H et al, *Int J Obesity*, 29: 711-719, 2005



# Snacking frequency in relation to energy intake and food choices in obese men and women compared to a reference population



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LE PERSONE PREDISPOSTE ALLA OBESITA' O CHE  
STANNO AUMENTANDO DI PESO DEVONO ESSERE  
EDUCATE A MANGIARE MENO FREQUENTEMENTE E  
AD ASSUMERE MENO CALORIE





# Dietary Fat and Weight Gain Among Women in the Nurses' Health Study



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I nostri risultati dimostrano che la percentuale delle calorie che deriva dai lipidi alimentari ha soltanto una debole associazione positiva con l'aumento del peso; **diversamente, la percentuale delle calorie che deriva dai grassi animali, saturi e trans ha delle associazioni più significative con l'aumento del peso**

**Field AE et al, *Obesity*, 15: 967-976, 2007**

Dietary fat intake and subsequent weight change in adults: results from the European Prospective Investigation into Cancer and Nutrition cohorts<sup>1-3</sup>

Non abbiamo riscontrato alcuna relazione significativa tra la quantità dei lipidi alimentari e le modificazioni del peso corporeo in questo popoloso studio prospettico (EPIC STUDY)

**Forouhi NG et al, *AJCN*, 90: 1632-1641, 2009**

**QUESTI RISULTATI NON SUPPORTANO L'USO DELLE DIETE IPOLIPIDICHE PER SE AL FINE DI PREVENIRE L'AUMENTO DI PESO**



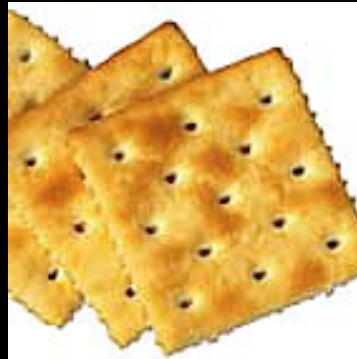
## REVIEW

### *Trans fatty acids and weight gain*



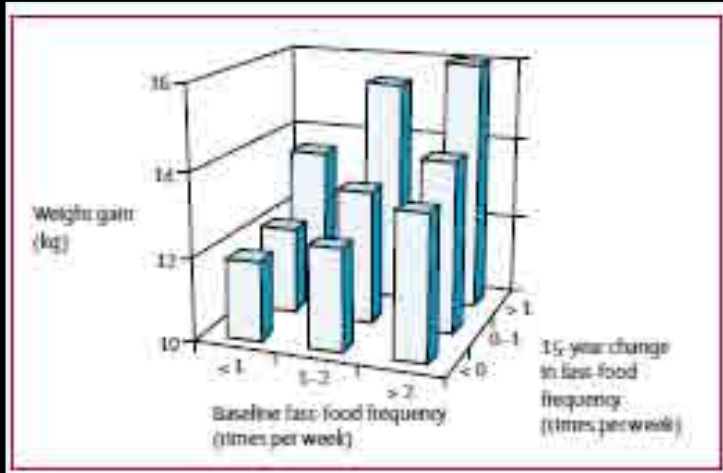
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Esiste una corposa evidenza, che deriva dagli studi epidemiologici, che il maggiore consumo di TFA può favorire l'aumento di peso



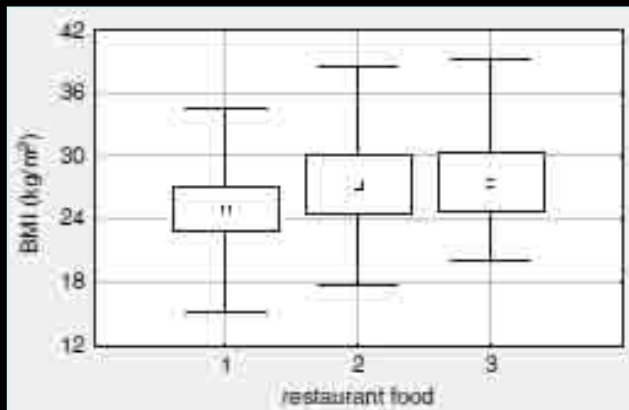
Thompson AK et al, *Int J Obesity*, 35: 315-324, 2011

# Fast-food habits, weight gain, and insulin resistance (the CARDIA study): 15-year prospective analysis



Pereira MA et al, *Lancet*, 365: 36-42, 2005

Contributors to the obesity and hyperglycemia epidemics. A prospective study in a population-based cohort



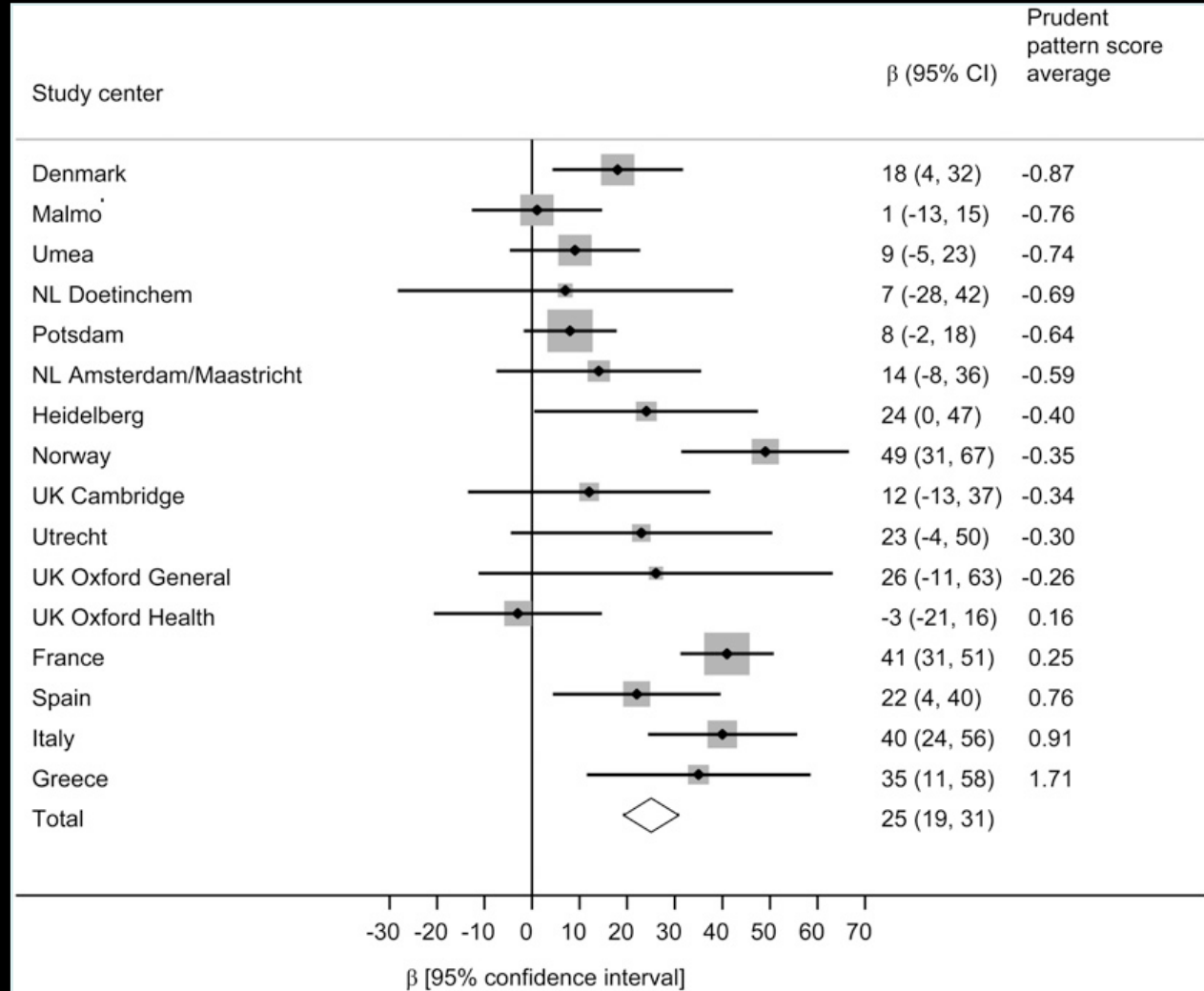
Bo S et al, *Int J Obesity*, 35: 1442-1449, 2011



# Meat consumption and prospective weight change in participants of the EPIC-PANACEA study<sup>1-3</sup>

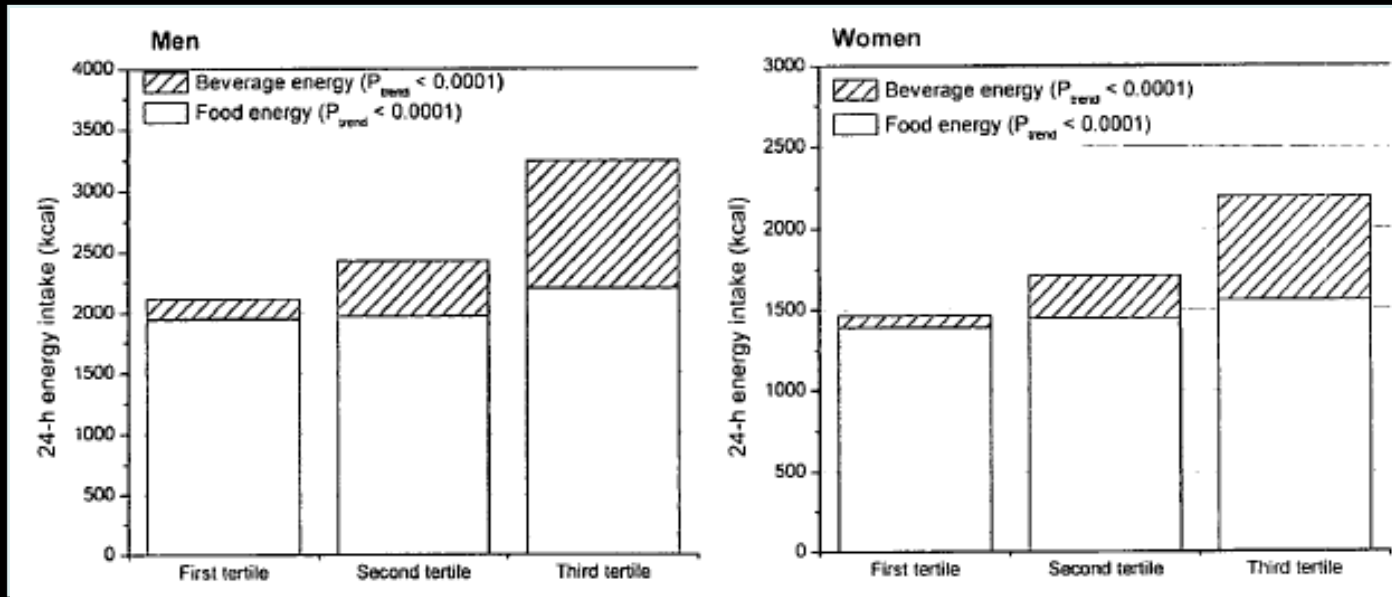


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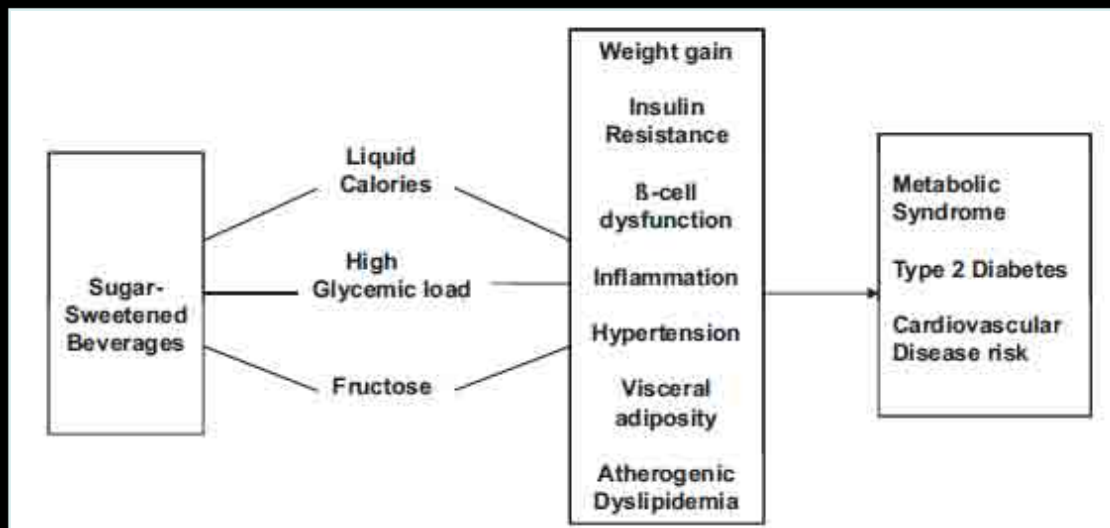




# Association of food form with self-reported 24-h energy intake and meal patterns in US adults: NHANES 2003–2008<sup>1-3</sup>



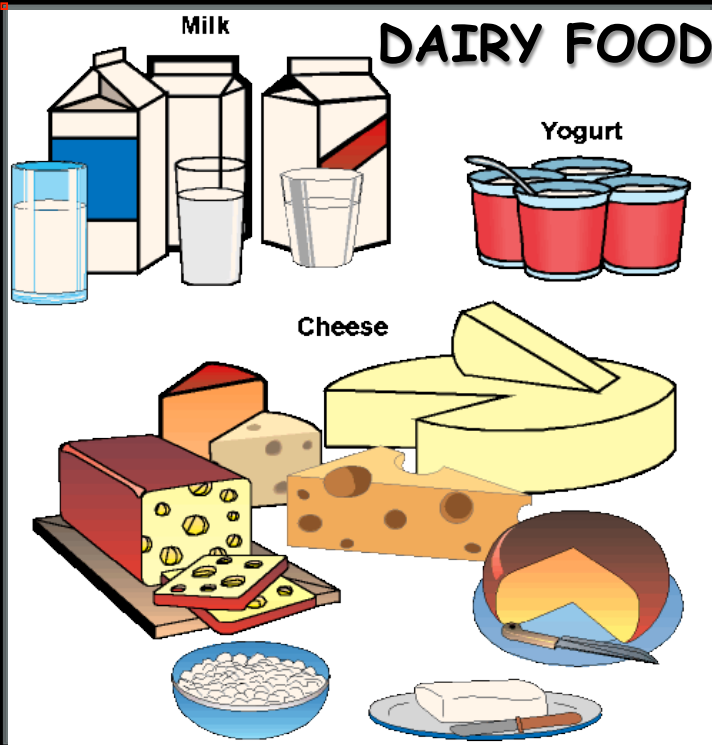
Kant AK et al, *AJCN*, 96: 1369-78, 2012



# Recent developments in calcium-related obesity research



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L'assunzione di latte e derivati ha la potenzialità di:

- 1) aumentare la ossidazione dei grassi
- 2) ridurre l'assorbimento dei grassi
- 3) promuovere l'apoptosi degli adipociti
- 4) aumentare il senso di sazietà
- 5) ridurre l'assunzione di cibo

**Major GC et al, *Obesity Rev*, 9: 428-45, 2008**



Milk intake is inversely related to obesity in men and in young women: data from the Portuguese Health Interview Survey 1998–1999

**Marques-Vidal P et al, *Int J Obesity*, 30: 88-93, 2006**



# Recent developments in calcium-related obesity research



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## INDICE GLICEMICO

30-39%  
Latte  
Yogurt



# Cross-Sectional Assessment of Nut Consumption and Obesity, Metabolic Syndrome and Other Cardiometabolic Risk Factors: The PREDIMED Study

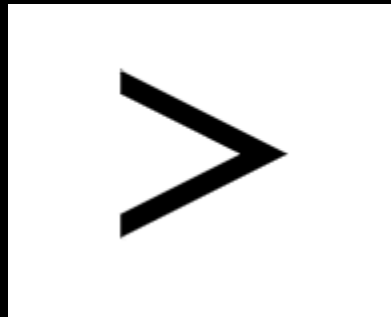


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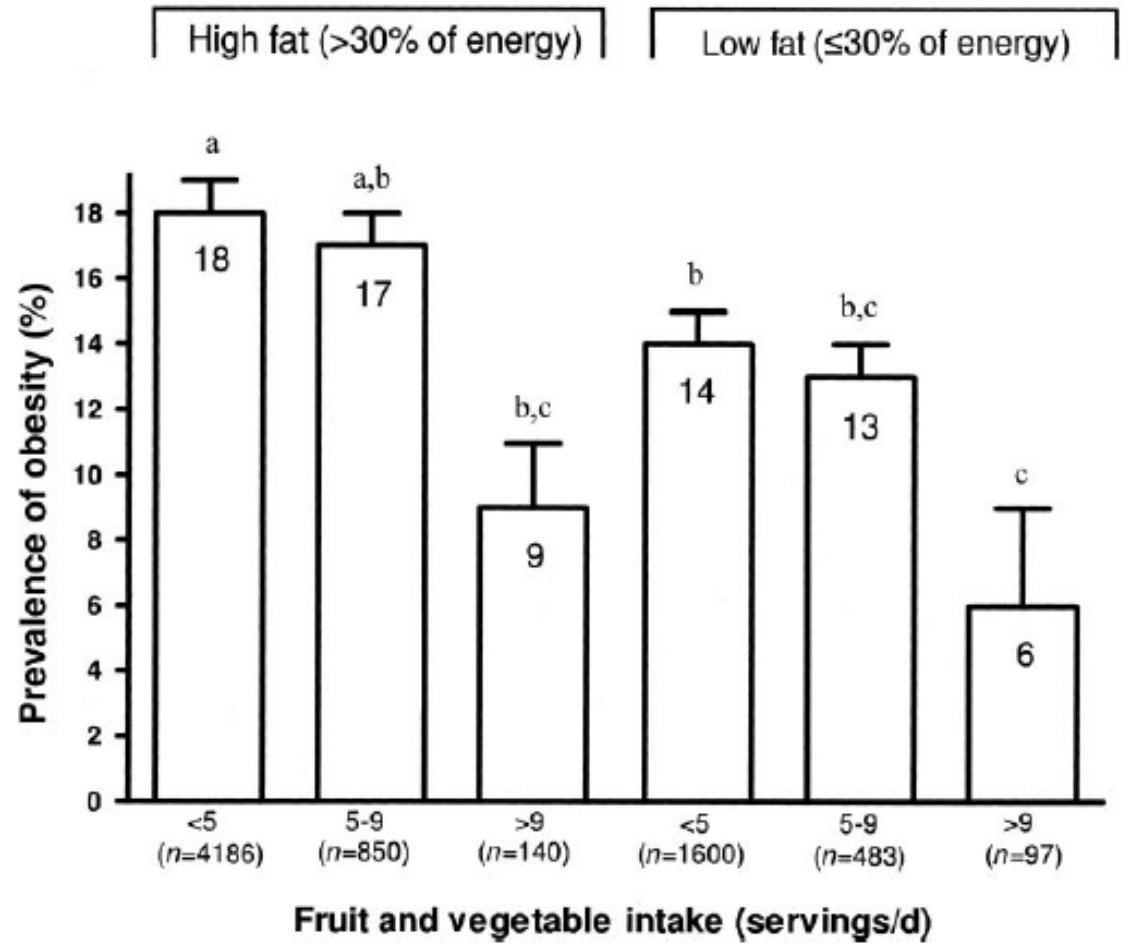
Compared to participants consuming **< 1 serving/wk** of nuts, those consuming **> 3 servings/wk** had lower adjusted odds ratios (OR) for obesity (0.61, P-trend < 0.001), MetS (0.74, P-trend < 0.001), and diabetes (0.87, P-trend = 0.043)



Ibarrola-Iurado N et al, *Plos One*, 2013

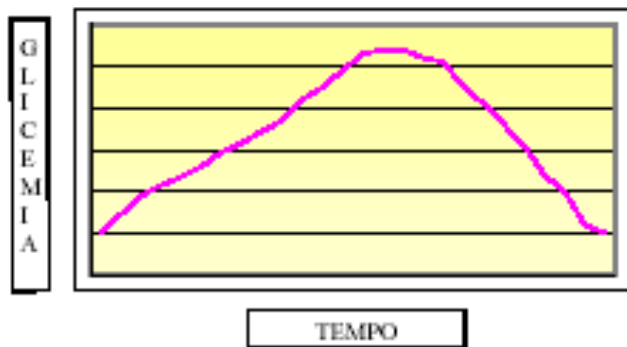


# Dietary energy density is associated with energy intake and weight status in US adults<sup>1-4</sup>

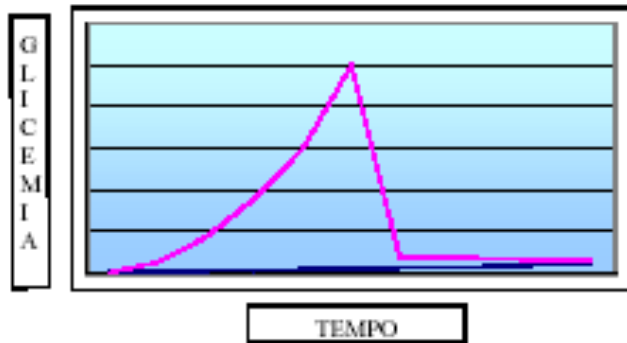


# RISPOSTA GLICEMICA ALL'ASSUNZIONE DI DIVERSI ALIMENTI

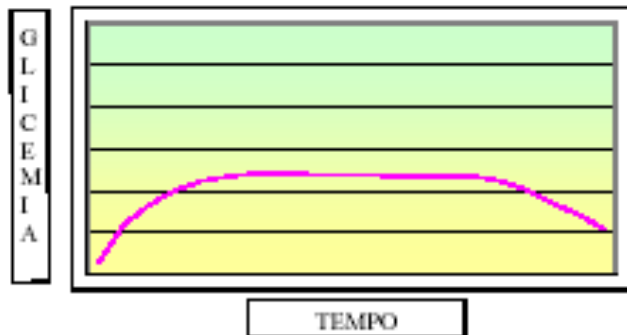
**Pane**



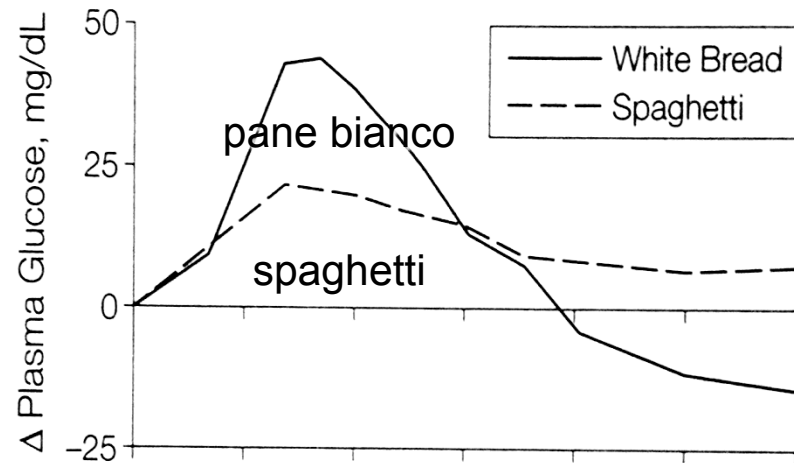
**Succo di frutta**



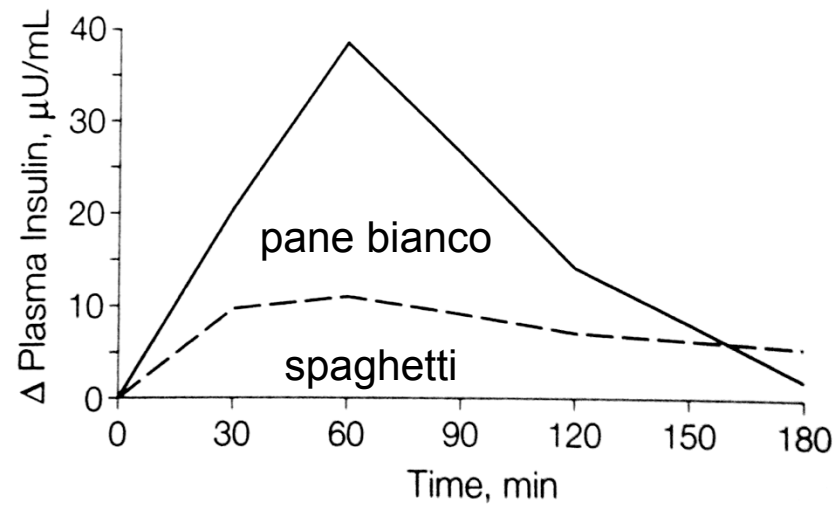
**Legumi**



## A Glycemic Response



## B Insulinemic Response





# INDICE GLICEMICO DEGLI ALIMENTI



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**100-90%**

Fiocchi di mais  
Patate  
Miele

**50-59%**

Grano saraceno  
Spaghetti  
Biscotti d'avena

**30-39%**

Fagioli secchi  
Piselli  
Ceci  
Mele  
Latte  
Yogurt

**70-79%**

Riso  
Patata novella



**60-69%**

Pane bianco  
Grano macinato  
Cracker  
Biscotti  
Banana

**40-49%**

Spaghetti integrali  
Arance

**20-29%**

Fagiolini  
Lenticchie

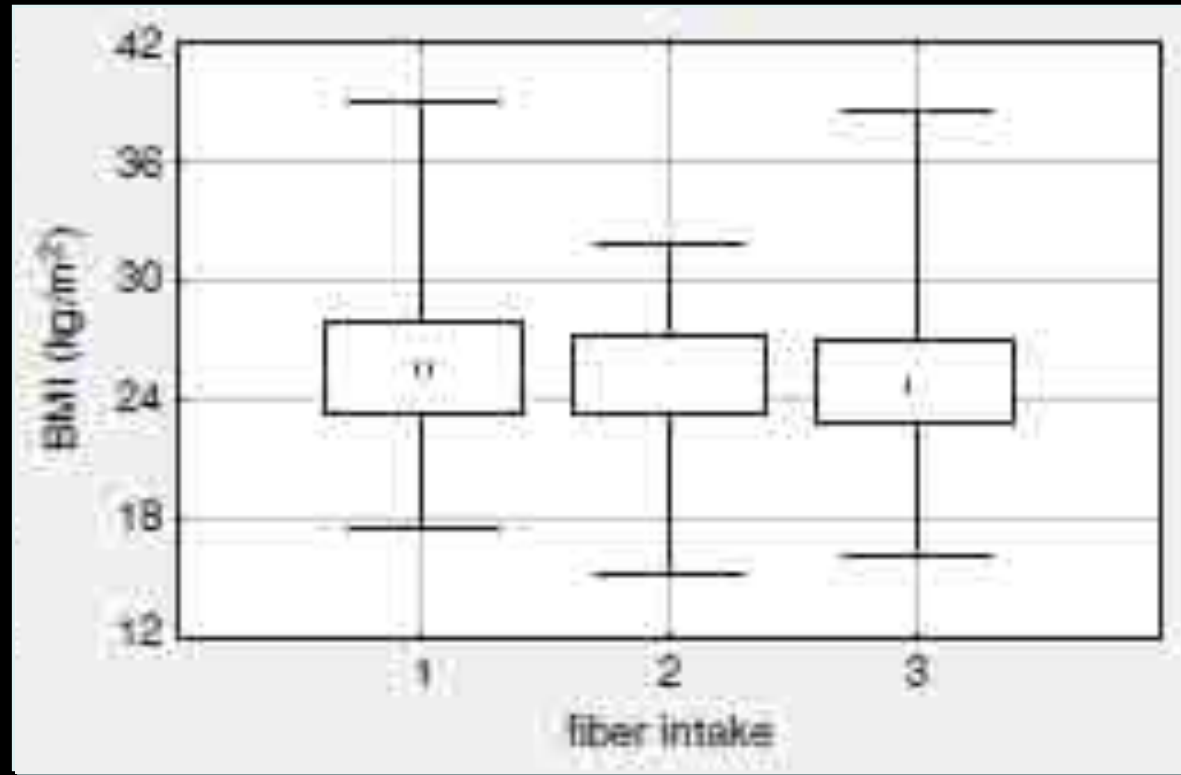
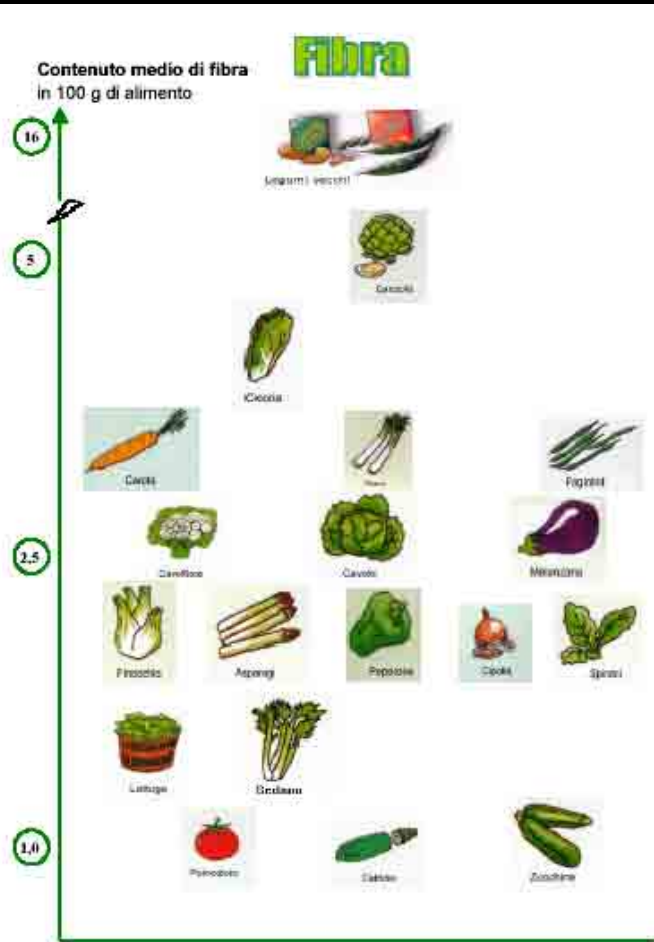


# Contributors to the obesity and hyperglycemia epidemics. A prospective study in a population-based cohort



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## Baseline environmental characteristics and BMI at 6 year follow-up







1575 Kcal  
High Energy Density



1575 Kcal  
Low Energy Density

## **Dietary Energy Density Is Associated With Obesity and the Metabolic Syndrome in U.S. Adults**

*Mendoza JA et al, Diabetes Care, 30: 974-979, 2007*

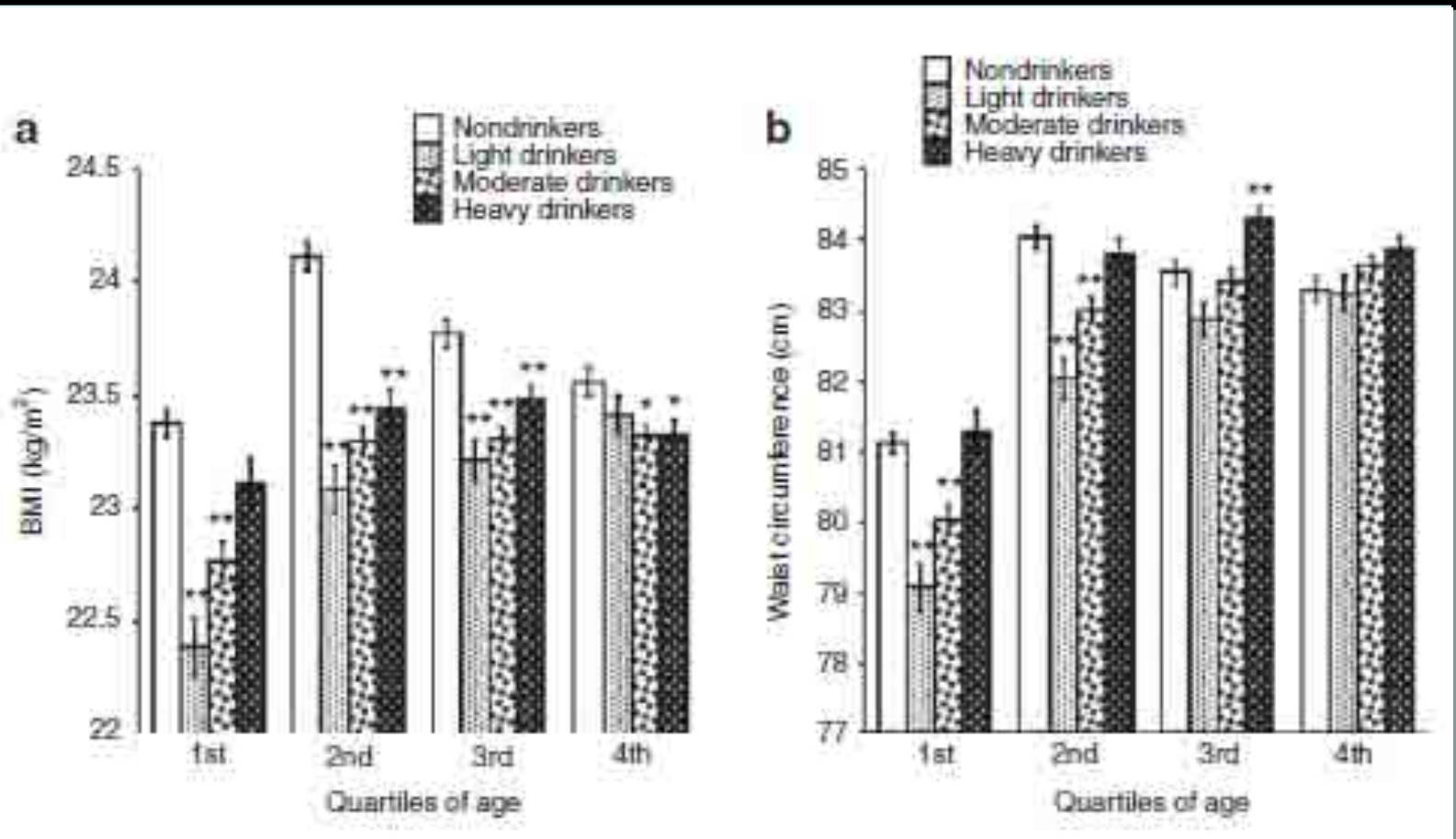
Dietary energy density predicts women's weight change over 6 y<sup>1-3</sup>

*Savage JS et al, AJCN, 88: 677-684, 2008*

# Age-Dependent Inverse Association Between Alcohol Consumption and Obesity in Japanese Men



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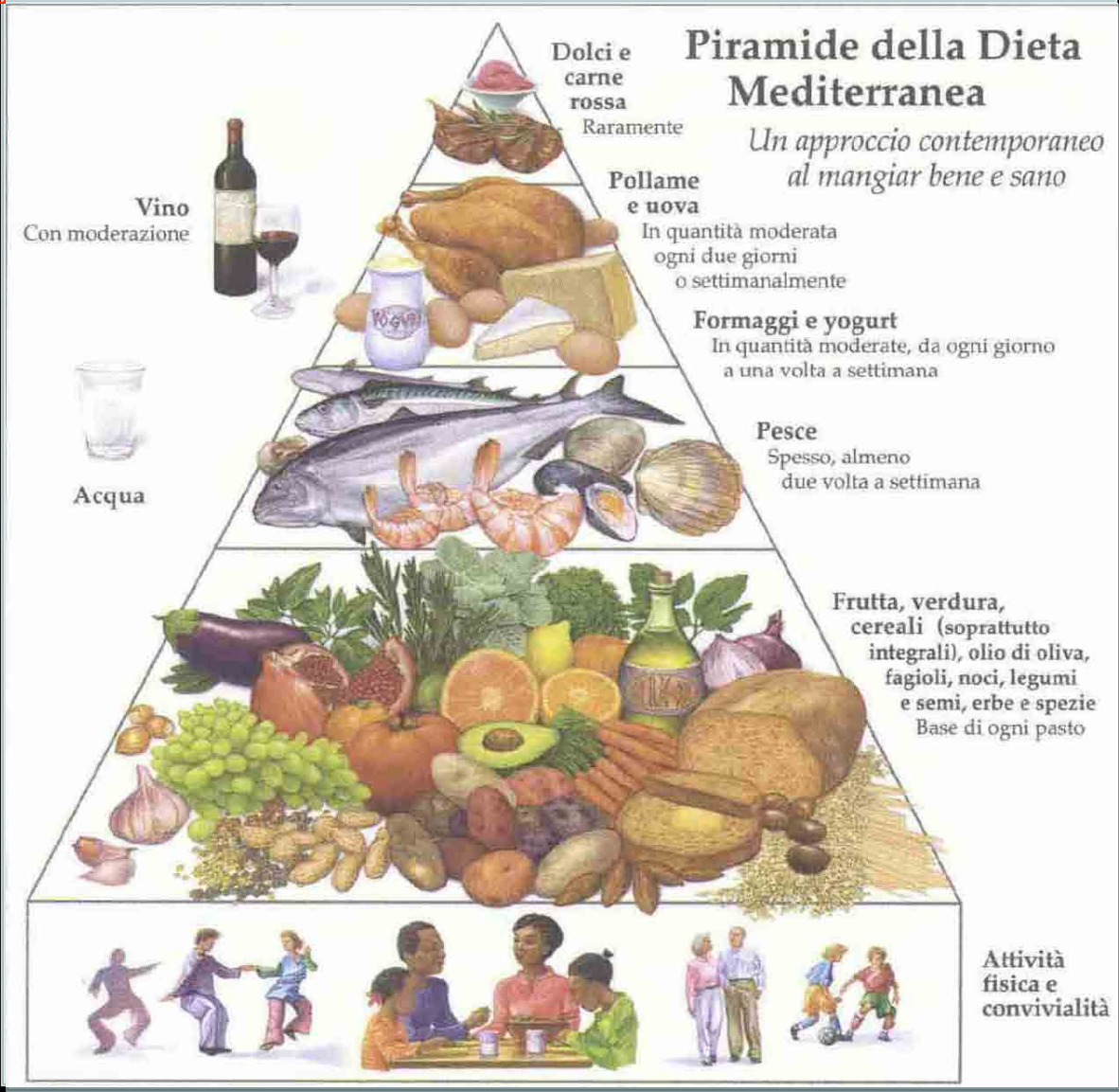




# LA PIRAMIDE ALIMENTARE PROPOSTA DA OLDWAYS E SVILUPPATA CON LA HARVARD SCHOOL OF PUBLIC HEALTH E L'UFFICIO EUROPEO DELL'OMS



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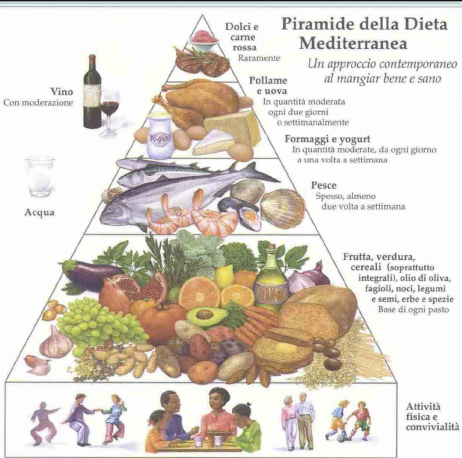




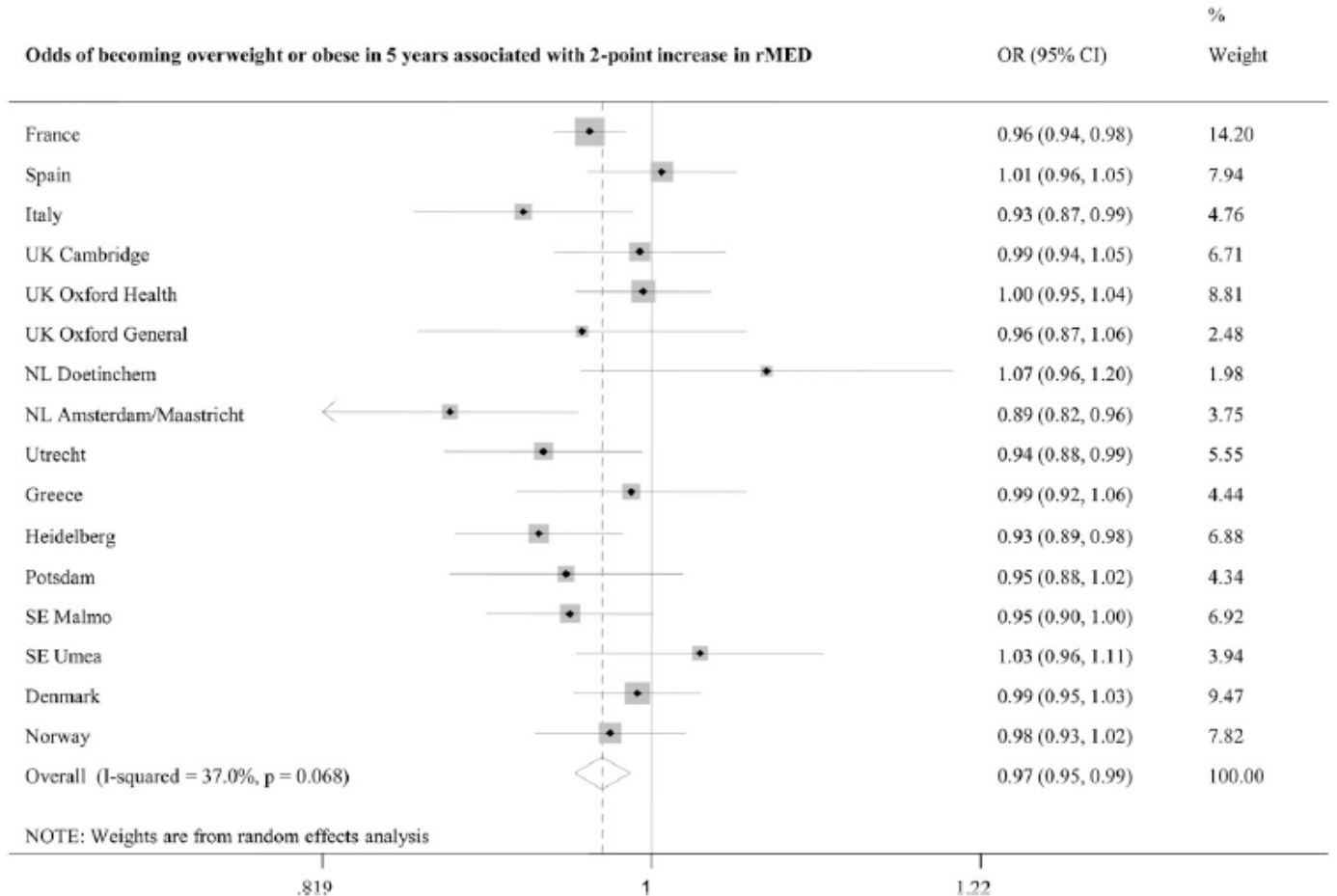
# Mediterranean dietary patterns and prospective weight change in participants of the EPIC-PANACEA project<sup>1-3</sup>



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Odds of becoming overweight or obese in 5 years associated with 2-point increase in rMED



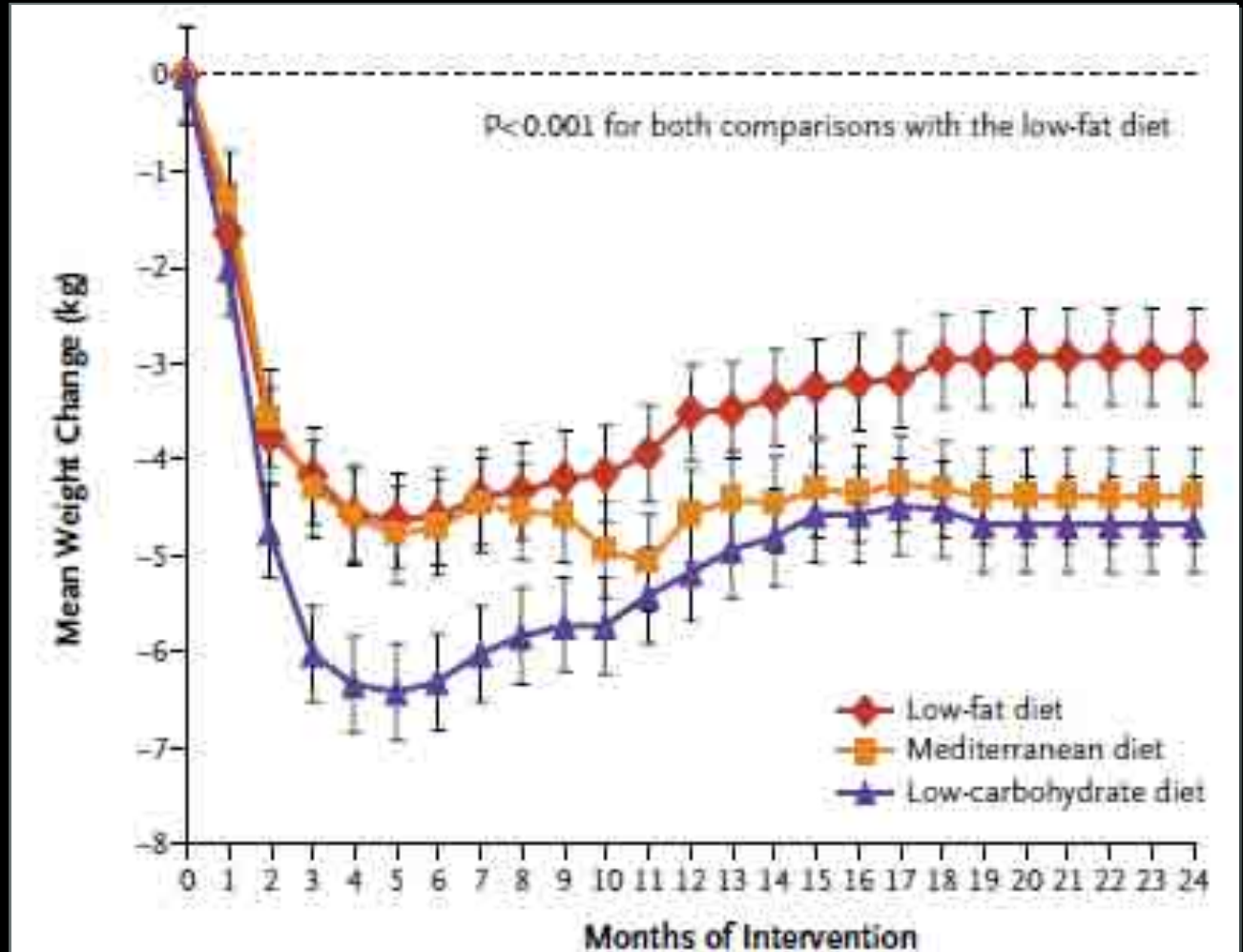
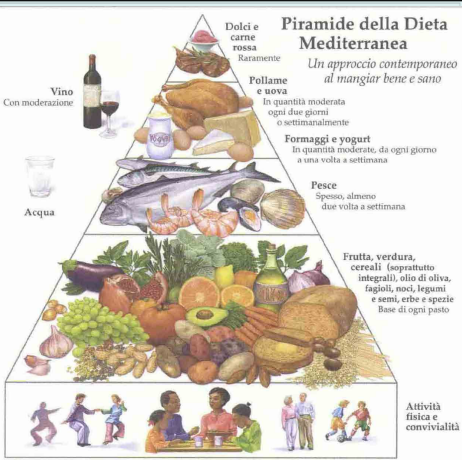


# Weight Loss with a Low-Carbohydrate, Mediterranean, or Low-Fat Diet



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## Esaminati 322 soggetti in moderato eccesso ponderale



Shai I et al, *NEJM*, 359: 229-241, 2008



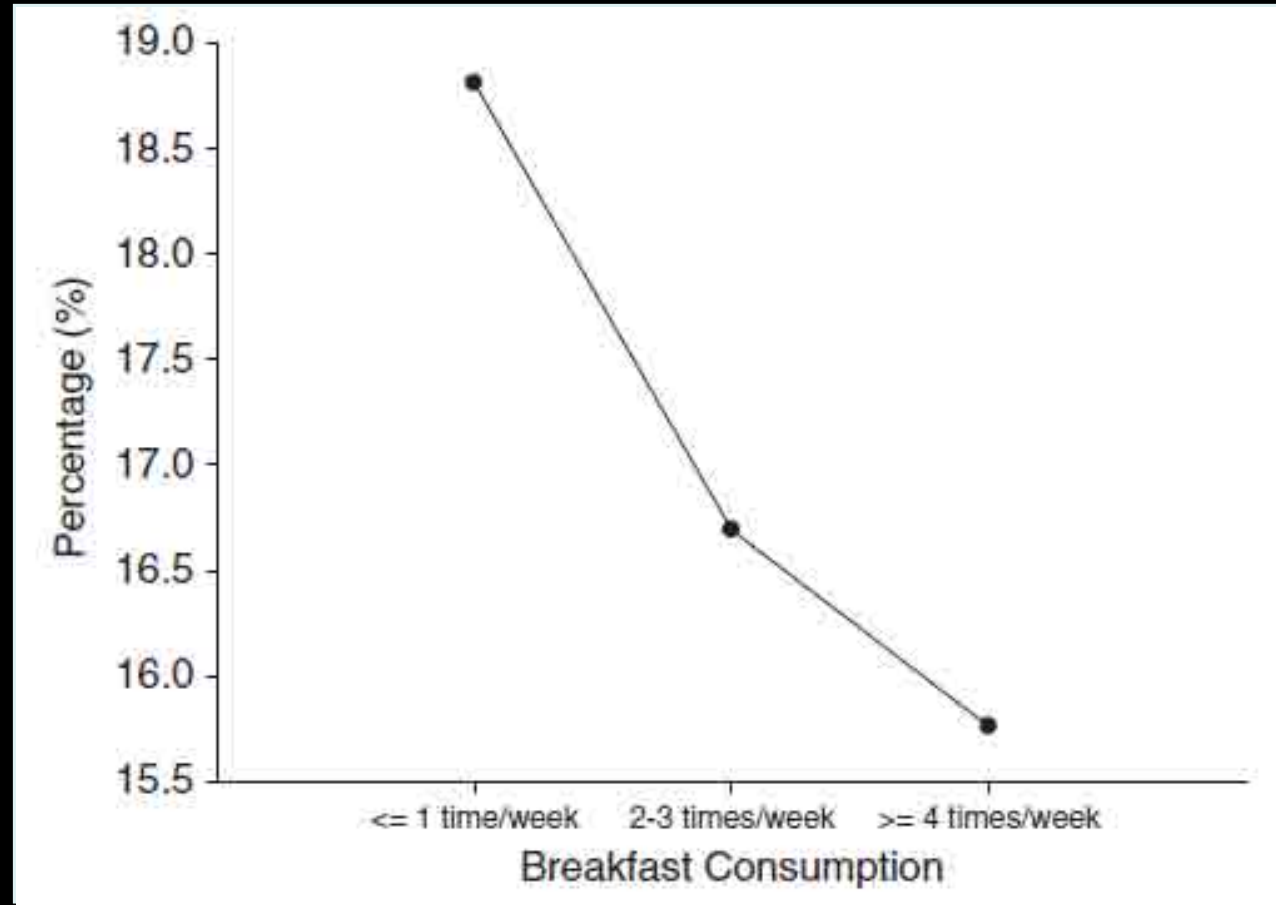
# Associations of breakfast skipping with obesity and health-related quality of life: evidence from a national survey in Taiwan



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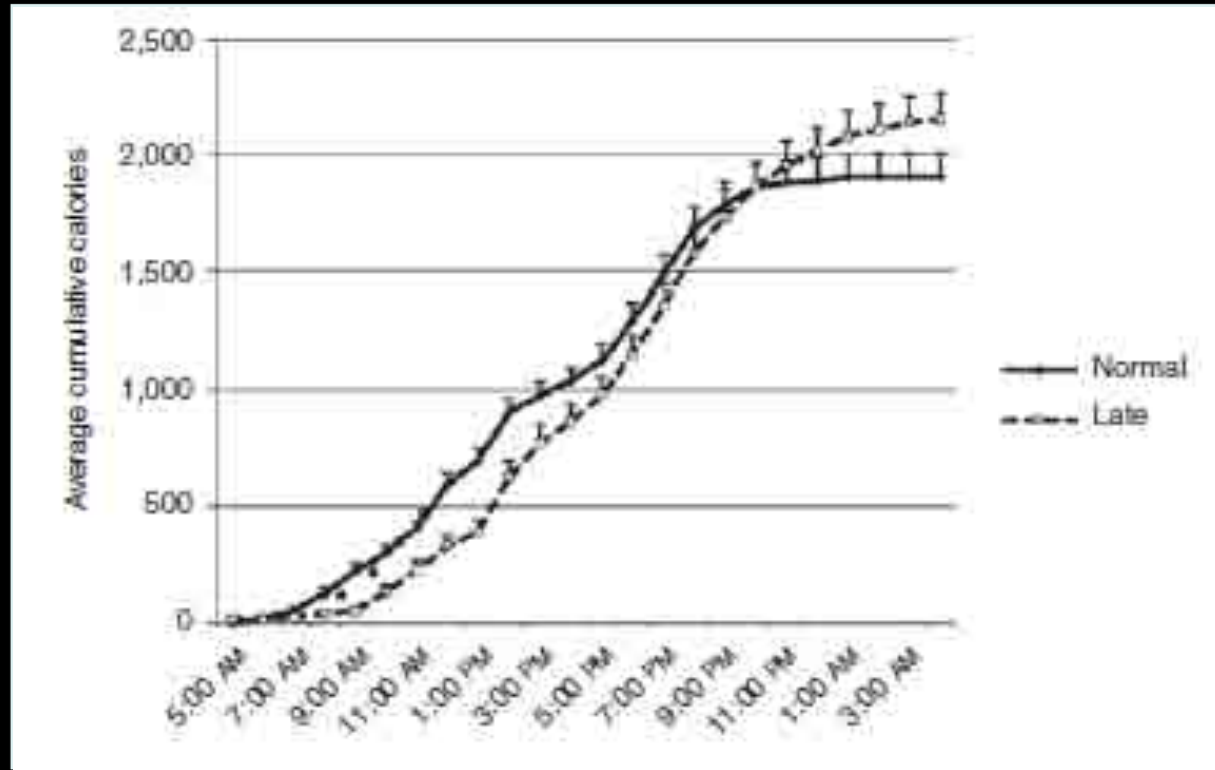


## PERCENTAGE OF OBESITY BY BREAKFAST CONSUMPTION



Huang CJ et al, *Int J Obesity*, 34: 720-725, 2010

# RUOLO DEL TIMING DELL'ALIMENTAZIONE



Caloric intake after 8:00 pm may increase the risk of obesity, independent of sleep timing and duration.



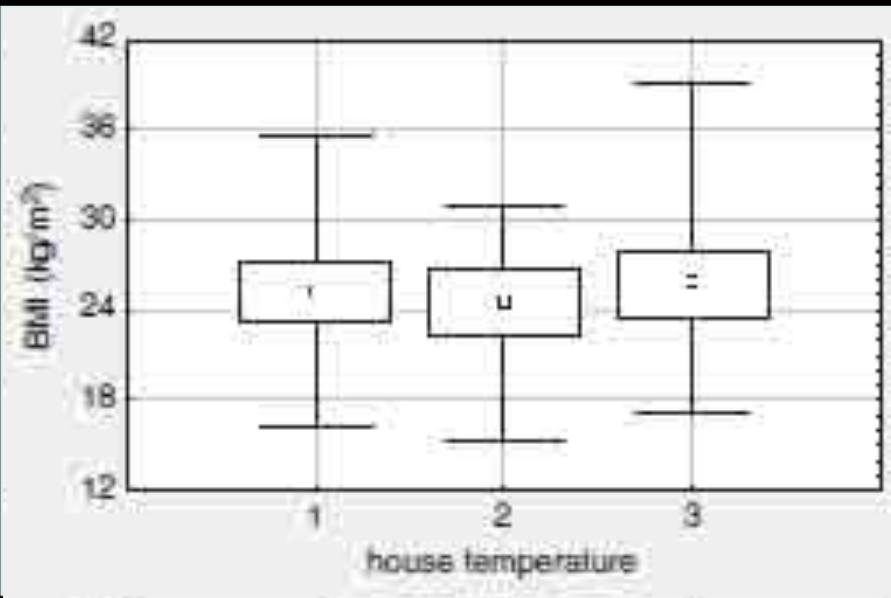
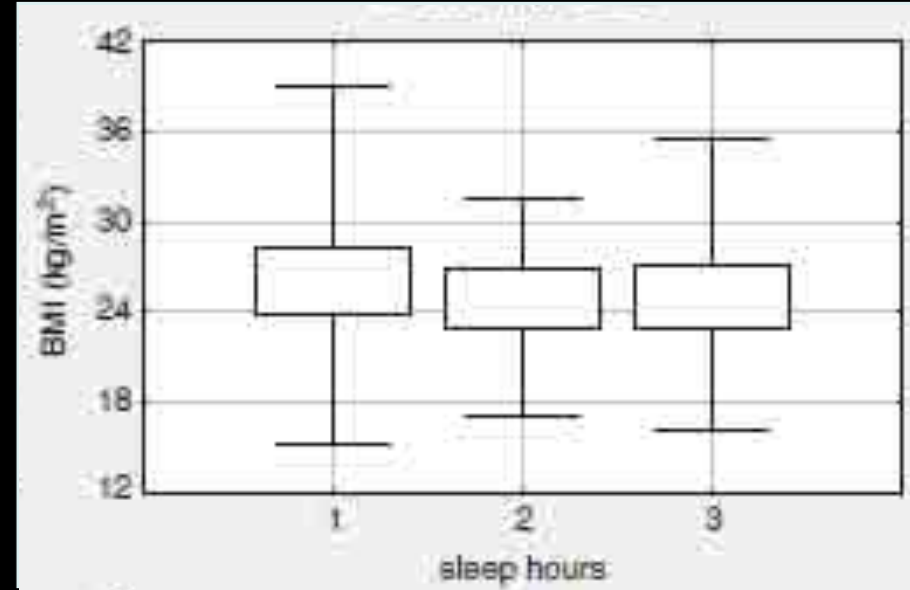
# Contributors to the obesity and hyperglycemia epidemics. A prospective study in a population-based cohort



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## Baseline environmental characteristics and BMI at follow-up







# Role of Low Energy Expenditure and Sitting in Obesity, Metabolic Syndrome, Type 2 Diabetes, and Cardiovascular Disease

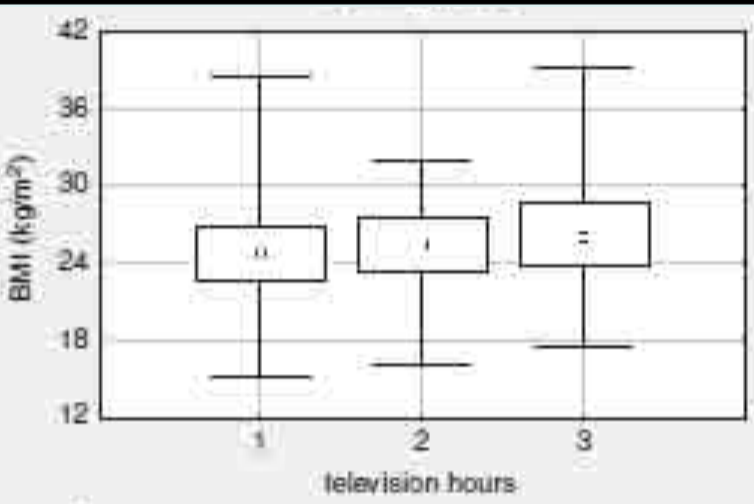


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Hamilton MT et al, *Diabetes*, 56: 2655-2667, 2007

Contributors to the obesity and hyperglycemia epidemics. A prospective study in a population-based cohort

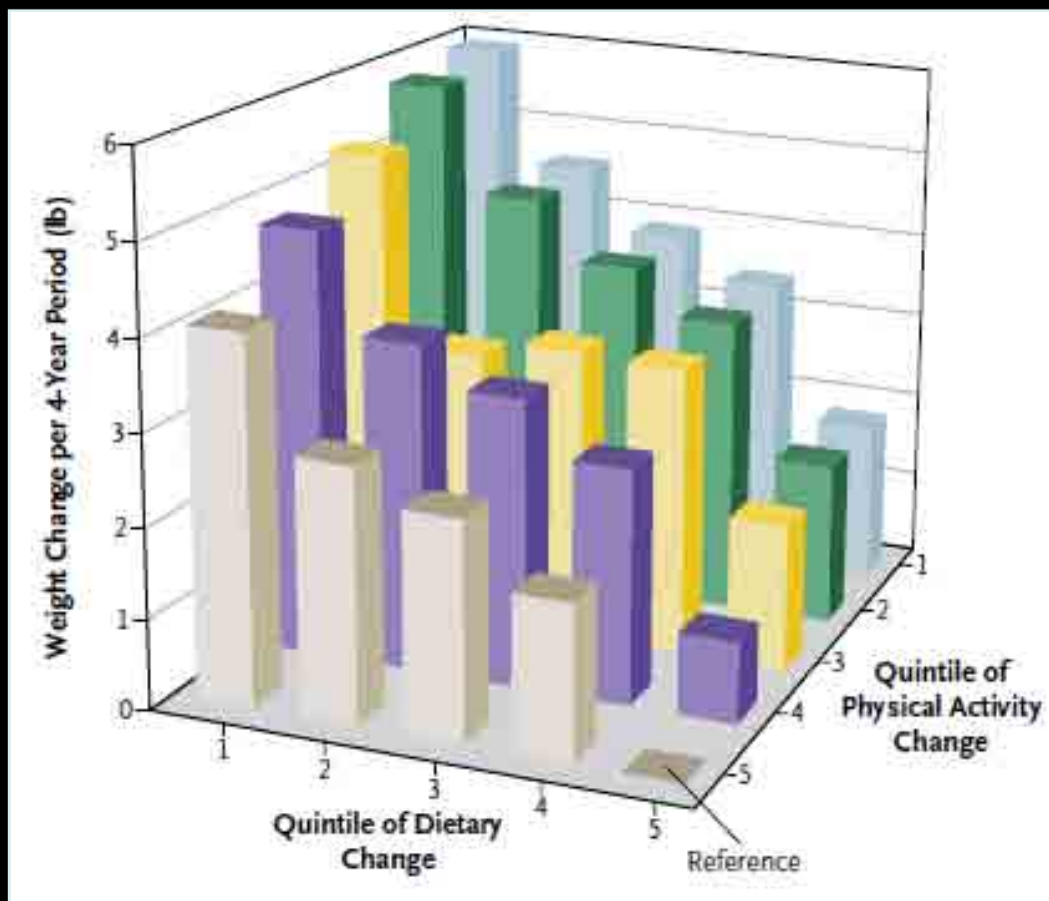


Bo S et al, *Int J Obesity*, 35: 1442-9, 2011

# Changes in Diet and Lifestyle and Long-Term Weight Gain in Women and Men



The relationships between changes in lifestyle factors and weight change were evaluated at **4-year intervals**, with multivariable adjustments made for age, baseline BMI for each period, and all lifestyle factors simultaneously

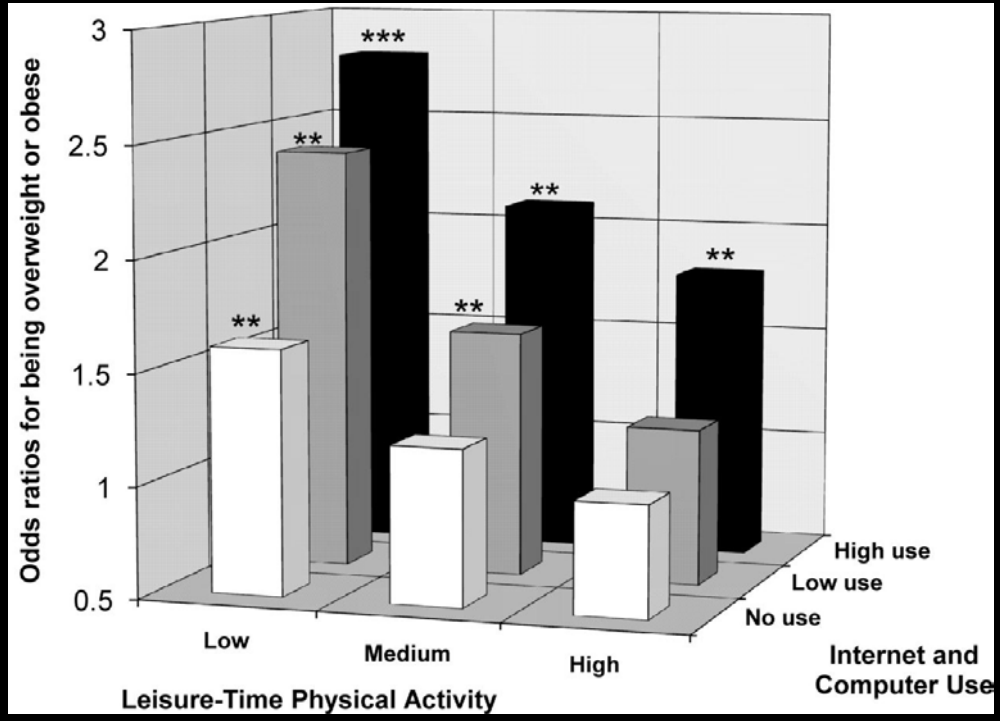




# LEISURE TIME PHYSICAL ACTIVITY



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## **LINEE GUIDA** PER L'ATTIVITÀ FISICA FINALIZZATA ALLA **PREVENZIONE** ED AL TRATTAMENTO DEL **SOVRAPPESO** E DELL'**OBESITÀ** IN **ETÀ ADULTA**

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Agostino Specchio  
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CACUCCI EDITORE  
S.p.A.



# Physical activity for the treatment and prevention of metabolic syndrome



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Un aspetto cruciale che i clinici affrontano in ogni giorno della loro attività pratica è come e se è realmente possibile implementare l'attività fisica tra i loro pazienti.

Alcuni clinici sono scettici e lo sono soprattutto i medici sedentari

I medici dovrebbero sperimentare personalmente gli effetti dell'attività fisica sulla propria qualità della vita e sui parametri metabolici e antropometrici. Con tale premessa, non sarebbe difficile per i medici trasferire il proprio feeling positivo ai loro pazienti.

**De Feo et al, *Nutr Metab Cardiovasc Dis*, 17: 327-331, 2007**



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*The End*