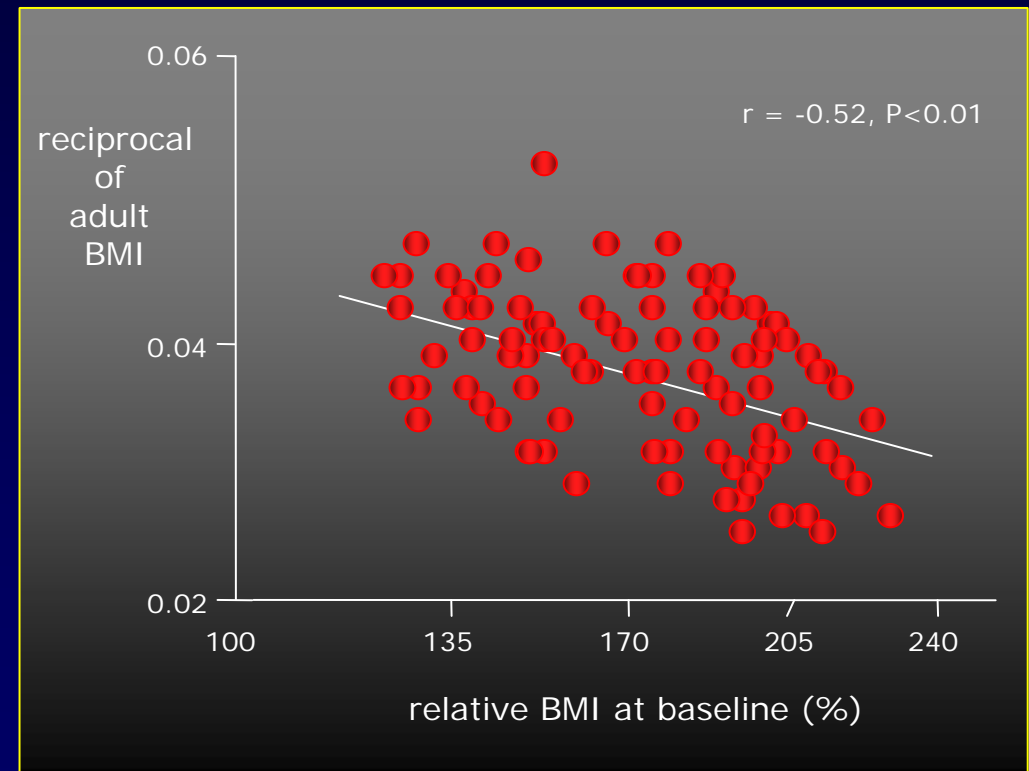
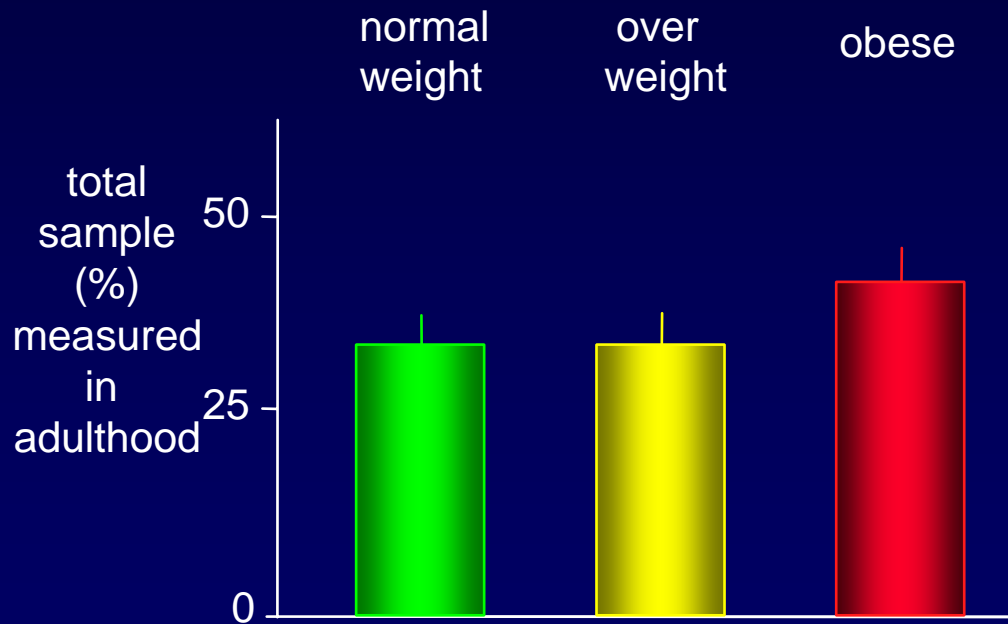


persistence of obesity from childhood into adulthood



relation between obesity from childhood to adulthood and the metabolic syndrome: population based study

	obese adults		
	non-obese adults*	non-obese In childhood °	obese In childhood
men	2	4	12
women	0	3	9
total	2	7	21
Odds ratio	1	16	56

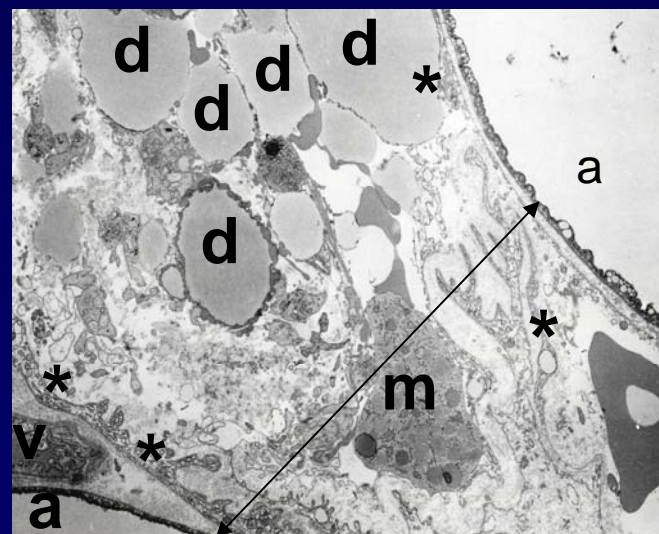
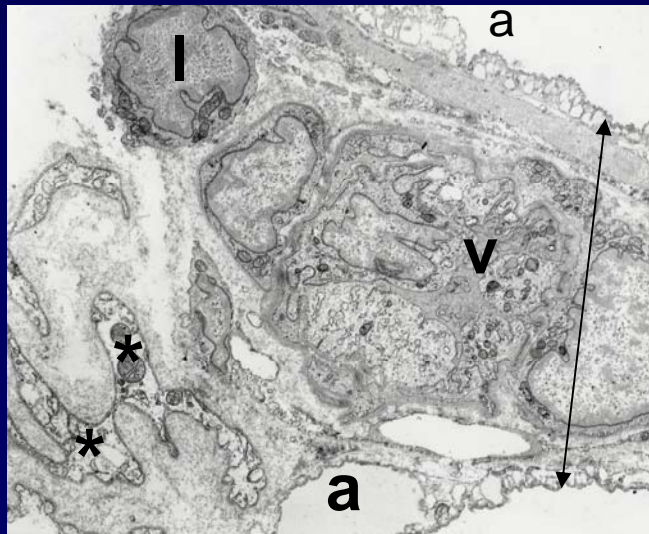
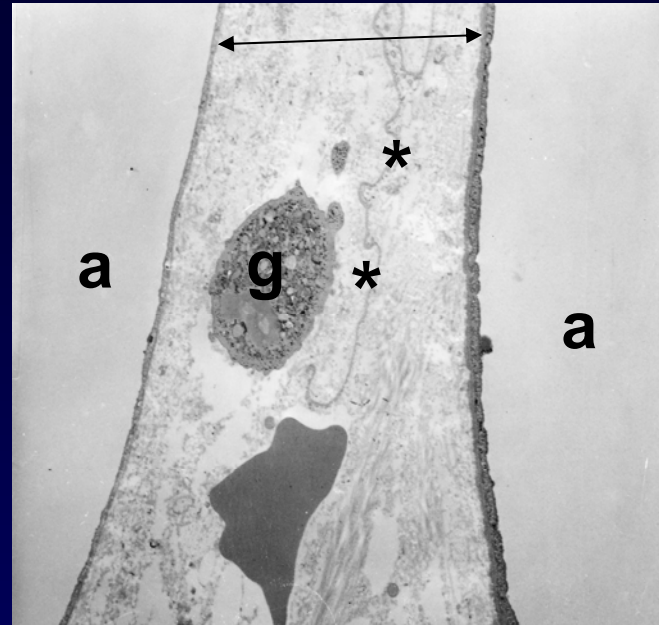
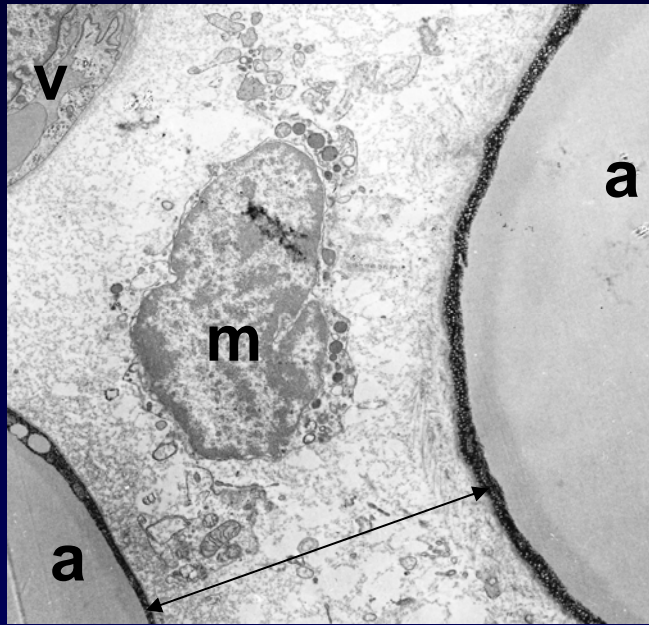
* BMI <27.7 m, <26.6 w. ; ° BMI <15.8 b, <15.6 g.

relative risk of mortality associated with overweight in adolescence

Cause of death	Men (n = 256)		Women (n = 252)	
	No. of deaths	Relative risk (95% CI)	No. of deaths	Relative risk (95% CI)
All causes	93	1.8 (1.2-2.7)	68	1.0 (0.6-1.6)
Coronary hearth disease	51	2.3 (1.4-4.1)	19	0.8 (0.3-2.1)
Atherosclerotic cerebrovasc. dis.	8	13.2 (1.6-108)	7	0.4 (0.1-1.8)
Colorectal cancer	6	9.1 (1.1-77.5)	4	1.0 (0.1-7.0)
Breast cancer	0	-	8	0.9 (0.2-3.8)

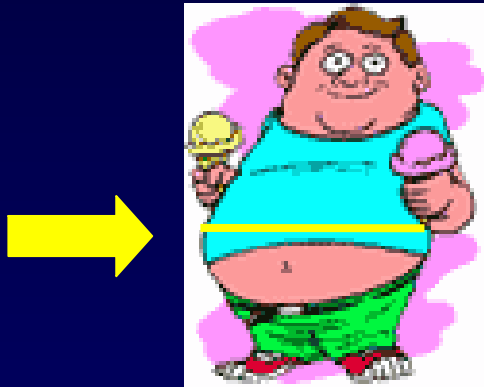
Obesity and Inflammation: Evidence for an Elementary Lesion

Electron microscopic features of subcutaneous adipose tissue in obese children.



a adipocytes
m macrophage
v vessel
g granulocyte
asterisks degenerating
l lymphocyte
d lipid droplets

waist circumference and cardiovascular risk factors in prepubertal children



> 90th centile = twofold the risk of having 2 or more CV risk factors

BEHAVIOUR

LIFESTYLE

```
graph TD; L[LIFESTYLE] --- F[FOOD INTAKE]; L --- S[SKELETAL MUSCLE ACTIVITY];
```

FOOD
INTAKE

SKELETAL
MUSCLE
ACTIVITY

long-term weight loss maintenance

Definition: “individuals who have intentionally lost at least 10% of their body weight and kept it off at least one year”.

20% of overweight individuals are successful weight losers.

THE NATIONAL WEIGHT CONTROL REGISTRY

diet + physical activity: 89%

diet: 10%

physical activity: 1%

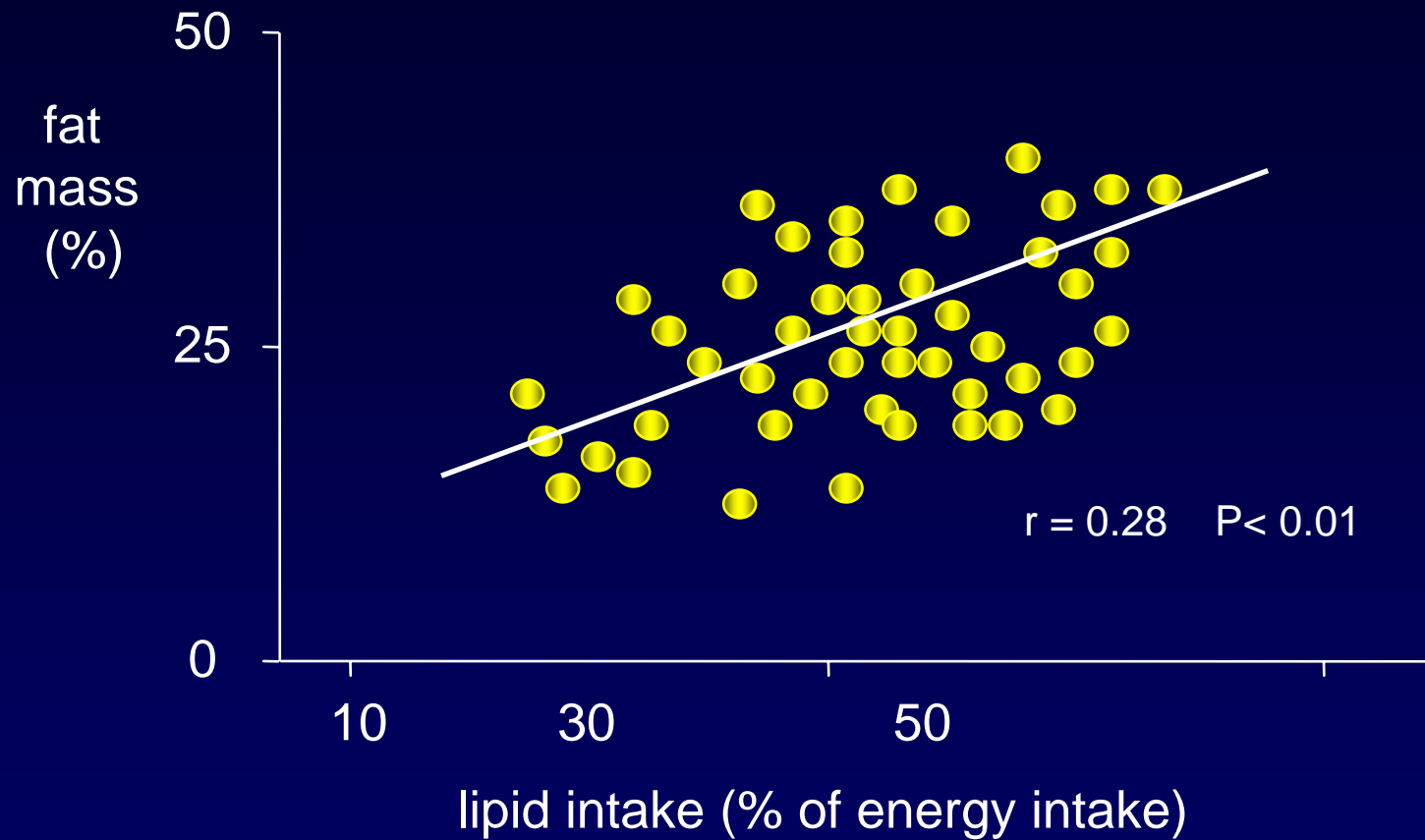
strategies very consistently reported:

consuming a low-calorie (1800 kcal/day), low-fat (25%) diet

doing high levels of physical activity (3000 kcal/week)

weighing themselves frequently

consuming breakfast daily

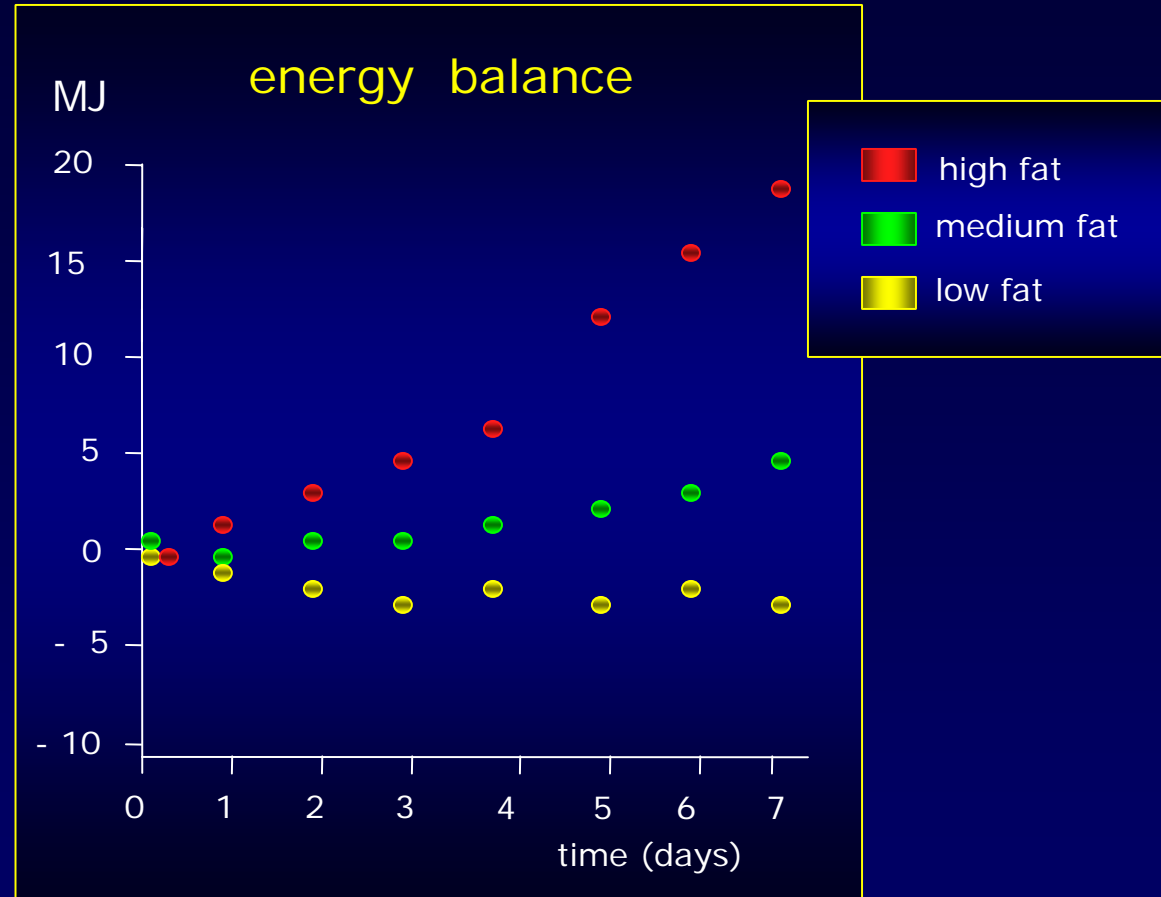
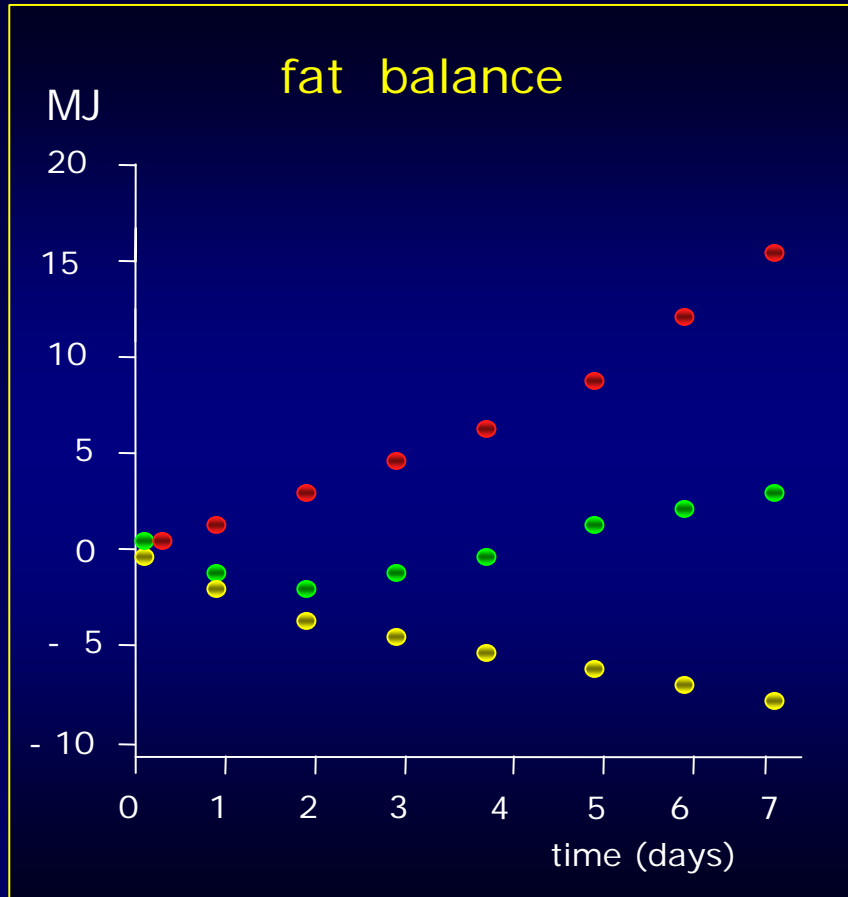


Klesges RC *et al.* AJCN '94

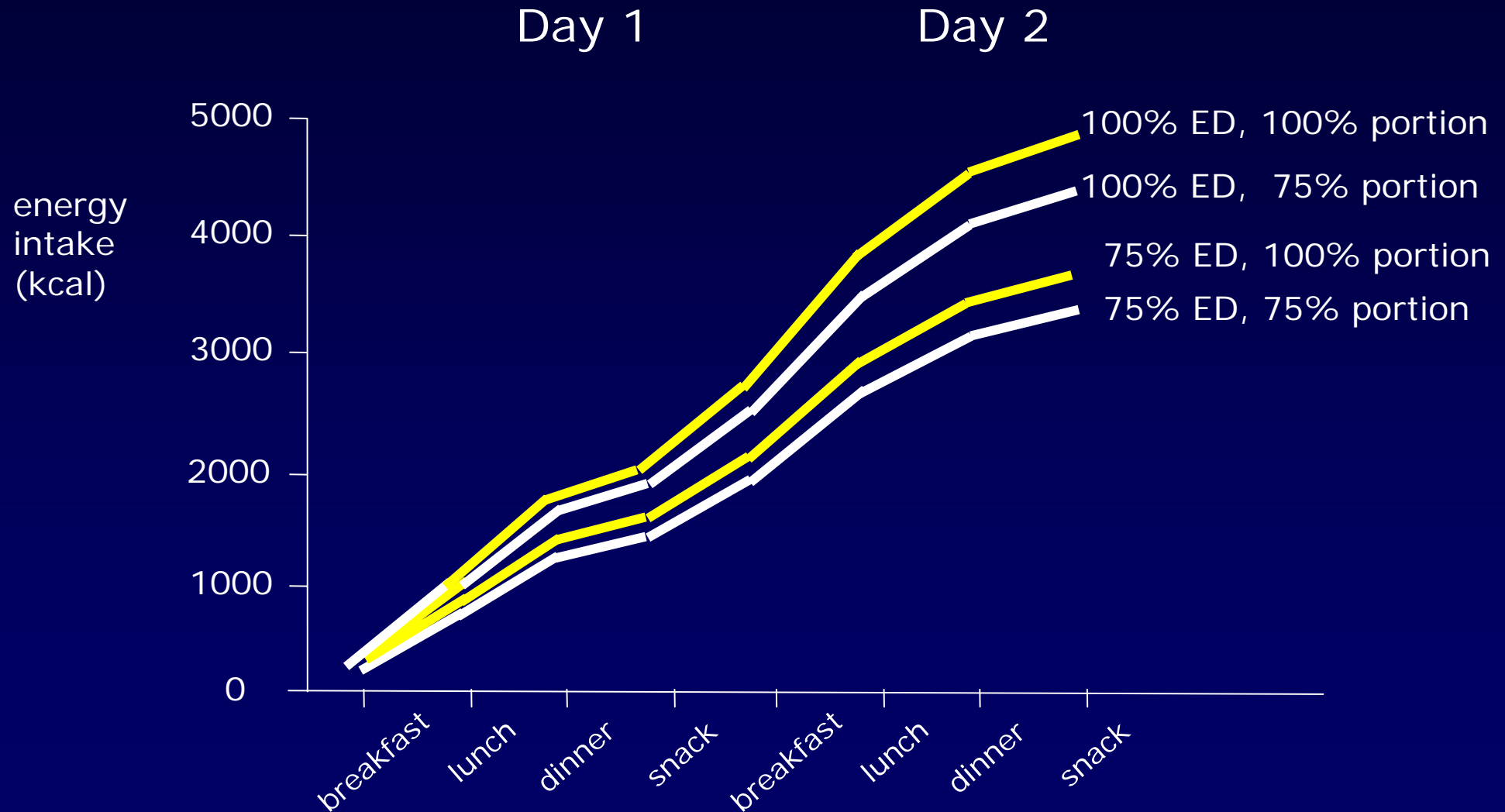
Gazzaniga JM, *et al.* AJCN '93

Maffeis C *et al.* Int J Obes '96

covert manipulation of dietary fat and energy density: effect on substrate flux and food intake in men eating ad libitum

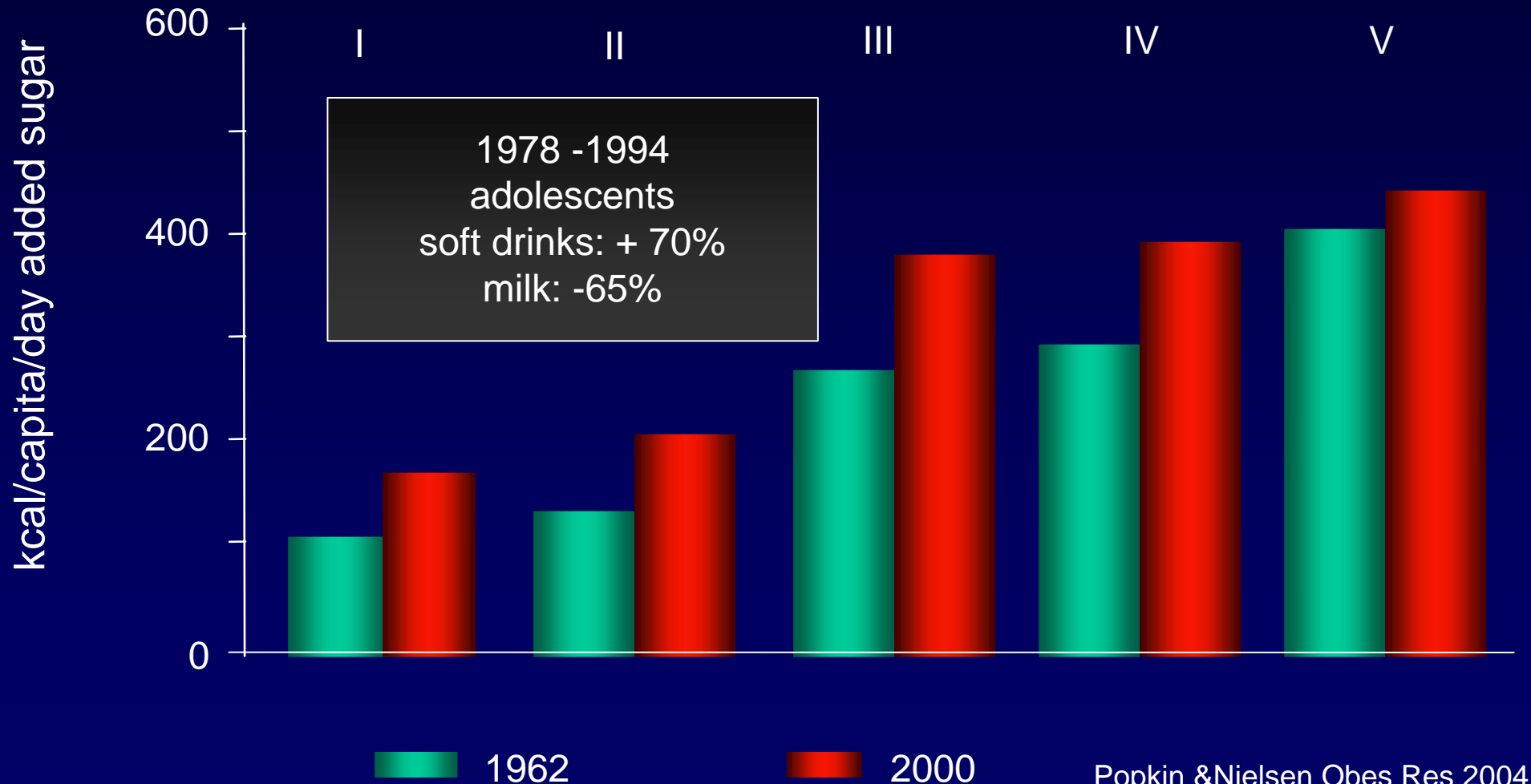


reduction in portion size and energy density of foods are additive and lead to sustained decreases in energy intake

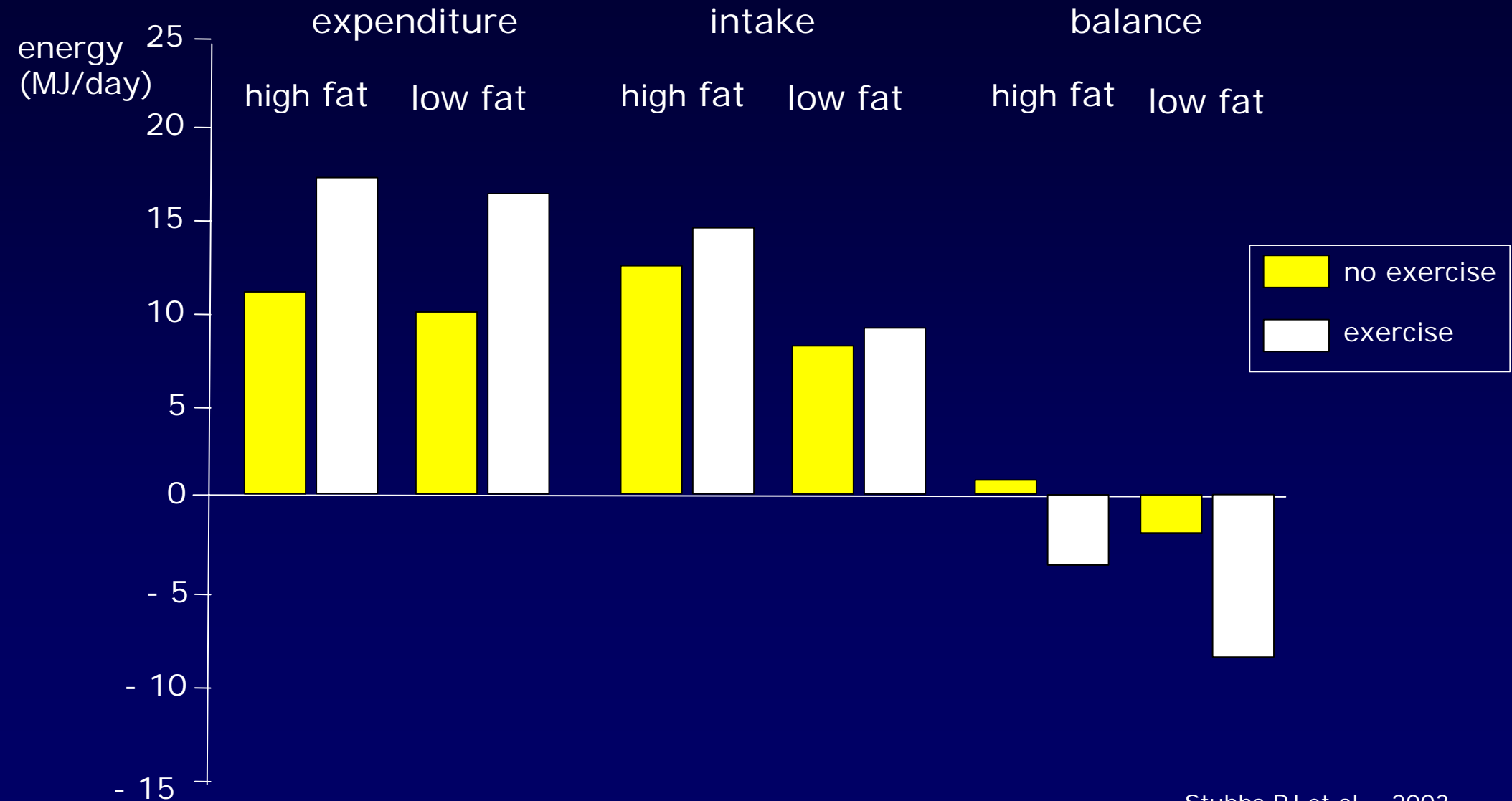


THE SWEETING OF THE WORLD'S DIET

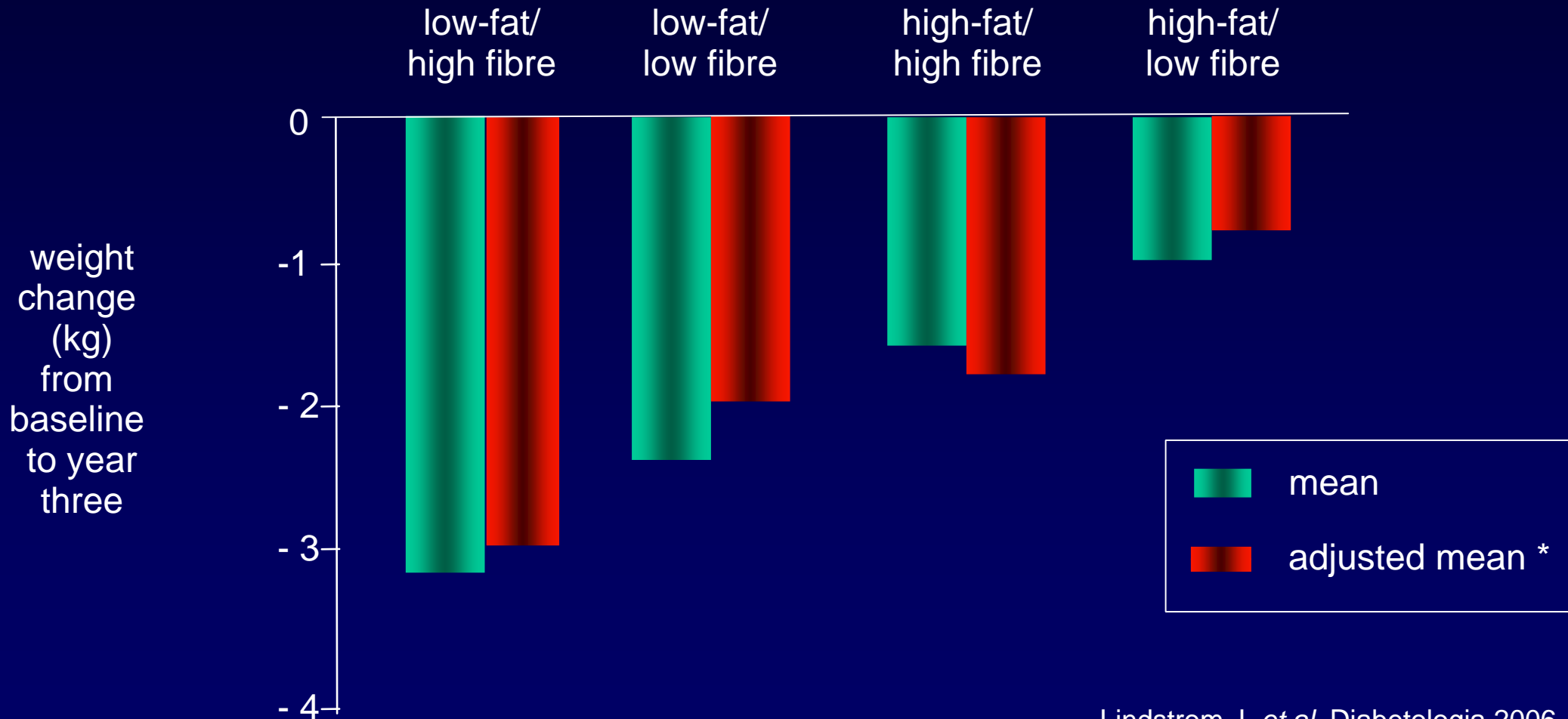
gross national products per capita/grouping of countries: fiftiles



rate and extent of compensatory changes in energy intake and expenditure in response to altered exercise and diet composition



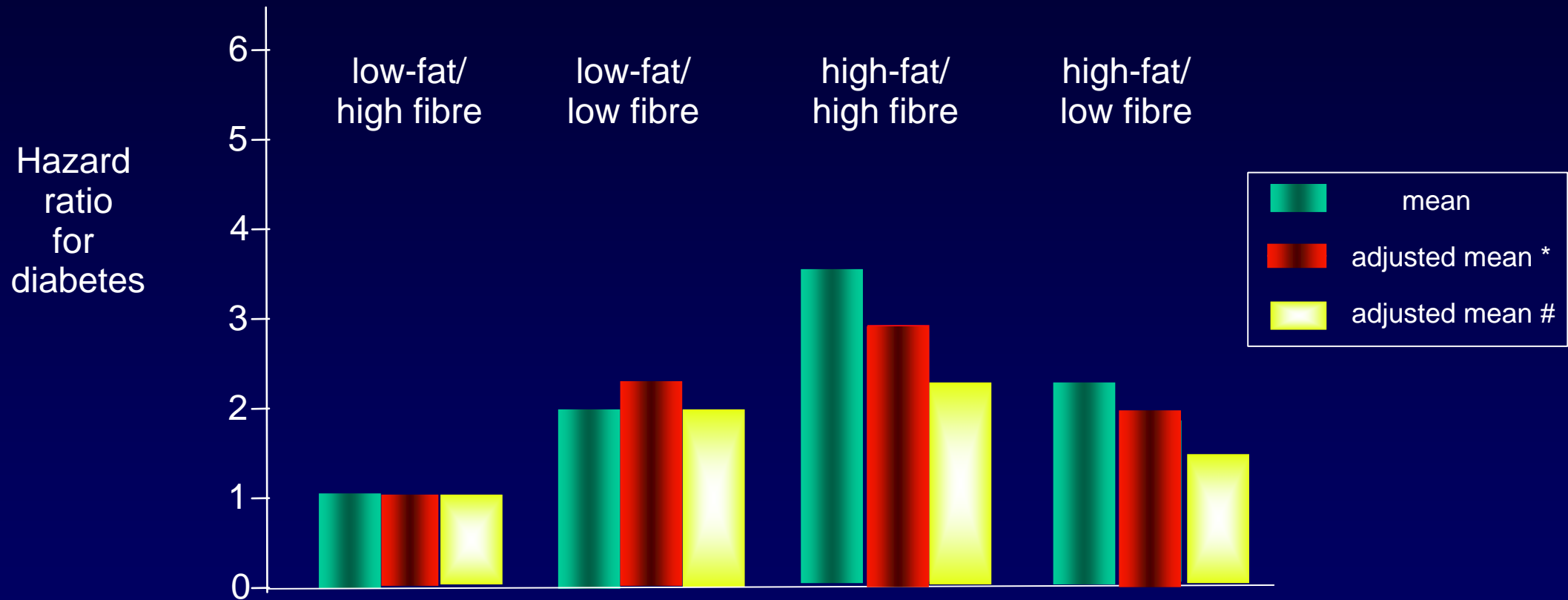
high-fibre, low-fat diet predicts long-term weight loss and decreased type 2 diabetes risk: the Finnish Diabetes Prevention Study



Lindstrom J, *et al.* Diabetologia 2006

* group assignment, age, sex, baseline BW, fat, fibre, VLDL-use, & baseline and follow-up period physical activity

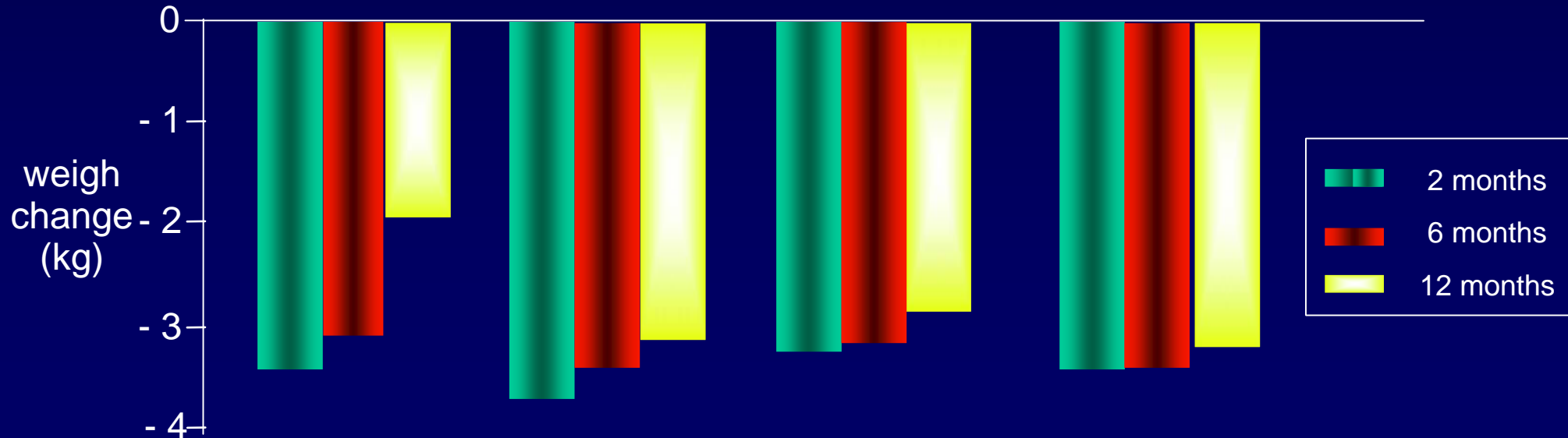
high-fibre, low-fat diet predicts long-term weight loss and decreased type 2 diabetes risk: the Finnish Diabetes Prevention Study



* group assignment, age, sex, baseline BW, fat & fibre intake, baseline 2-h glucose, baseline and follow-up period physical activity
+ weight change

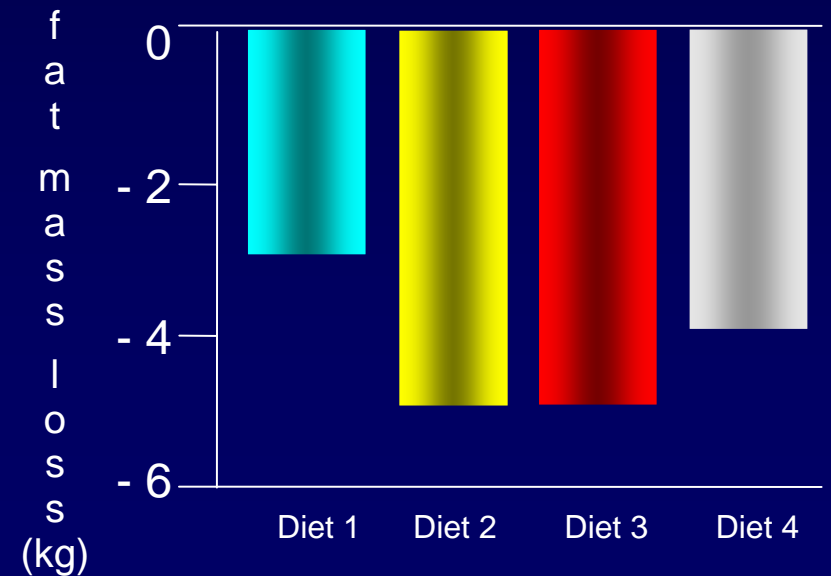
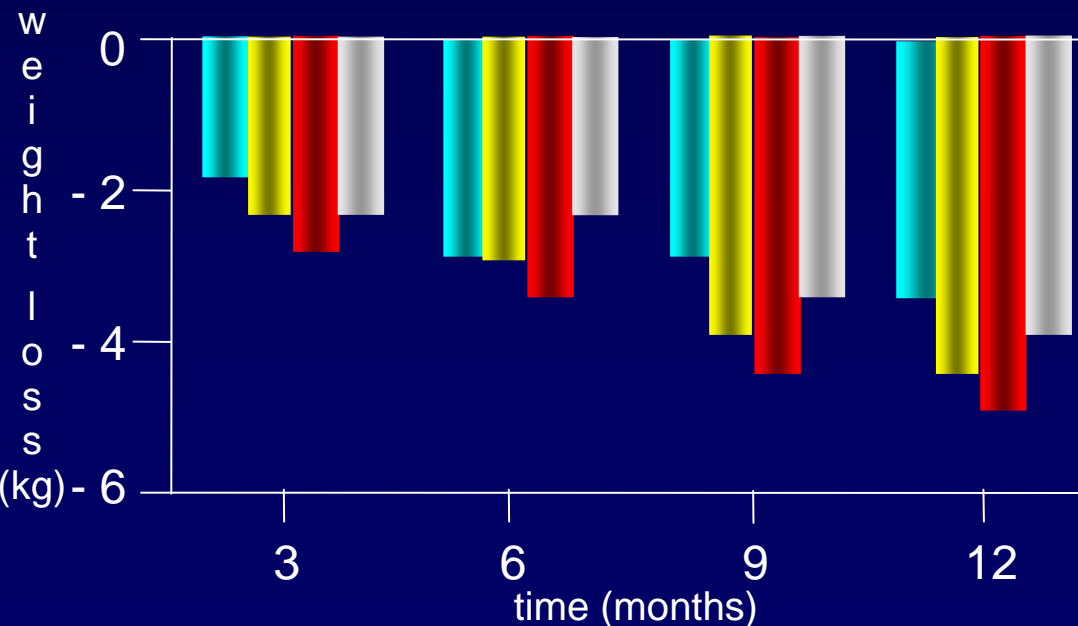
Comparison of the Atkins, Ornish, Weight Watchers, and Zone diets for weight loss and heart disease risk reduction

	Atkins (n.40)	Zone (n.40)	Weight Watchers (n.40)	Ornish (n.40)
Energy	1700	1420	1480	1400
CHO (%)	16	45	47	65
Fat (%)	50	34	34	17
Prot (%)	34	21	19	18
Fiber (g)	8	18	15	20



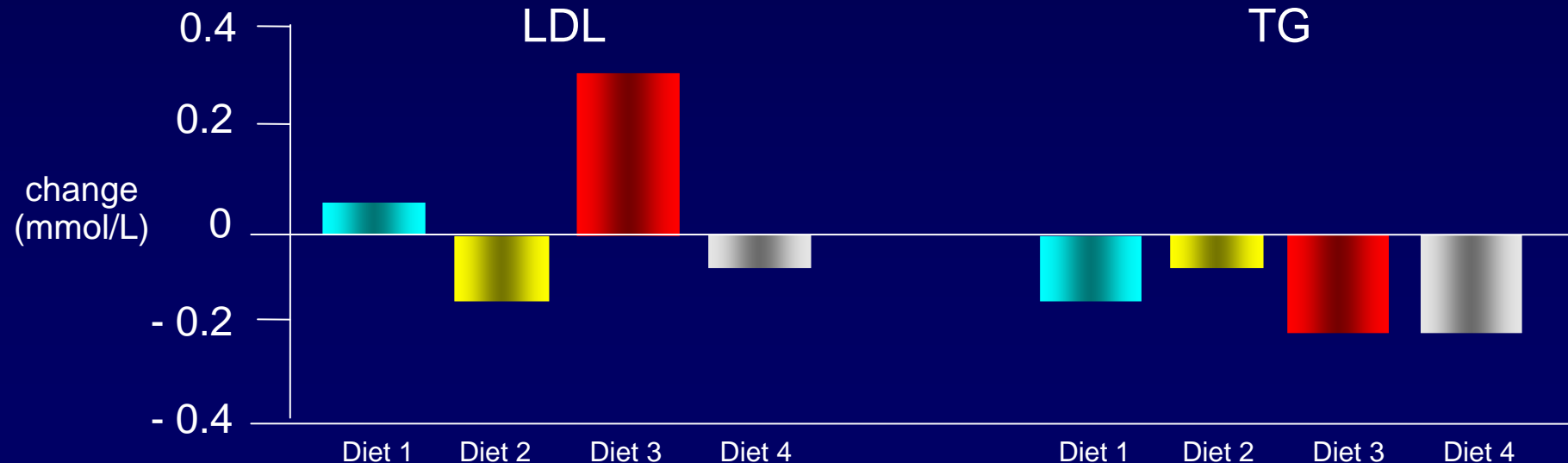
comparison of 4 diets of varying glycemic load on weight loss and cardiovascular risk reduction in overweight and obese adults

	Diet 1 (n.32)	Diet 2 (n.32)	Diet 3 (n.32)	Diet 4 (n.32)
Energy	1300	1300	1300	1300
CHO (%)	56	55	44	44
Fat (%)	29	30	30	30
Prot (%)	15	15	26	26
GI	65	40	68	34
GL (g)	116	65	84	43

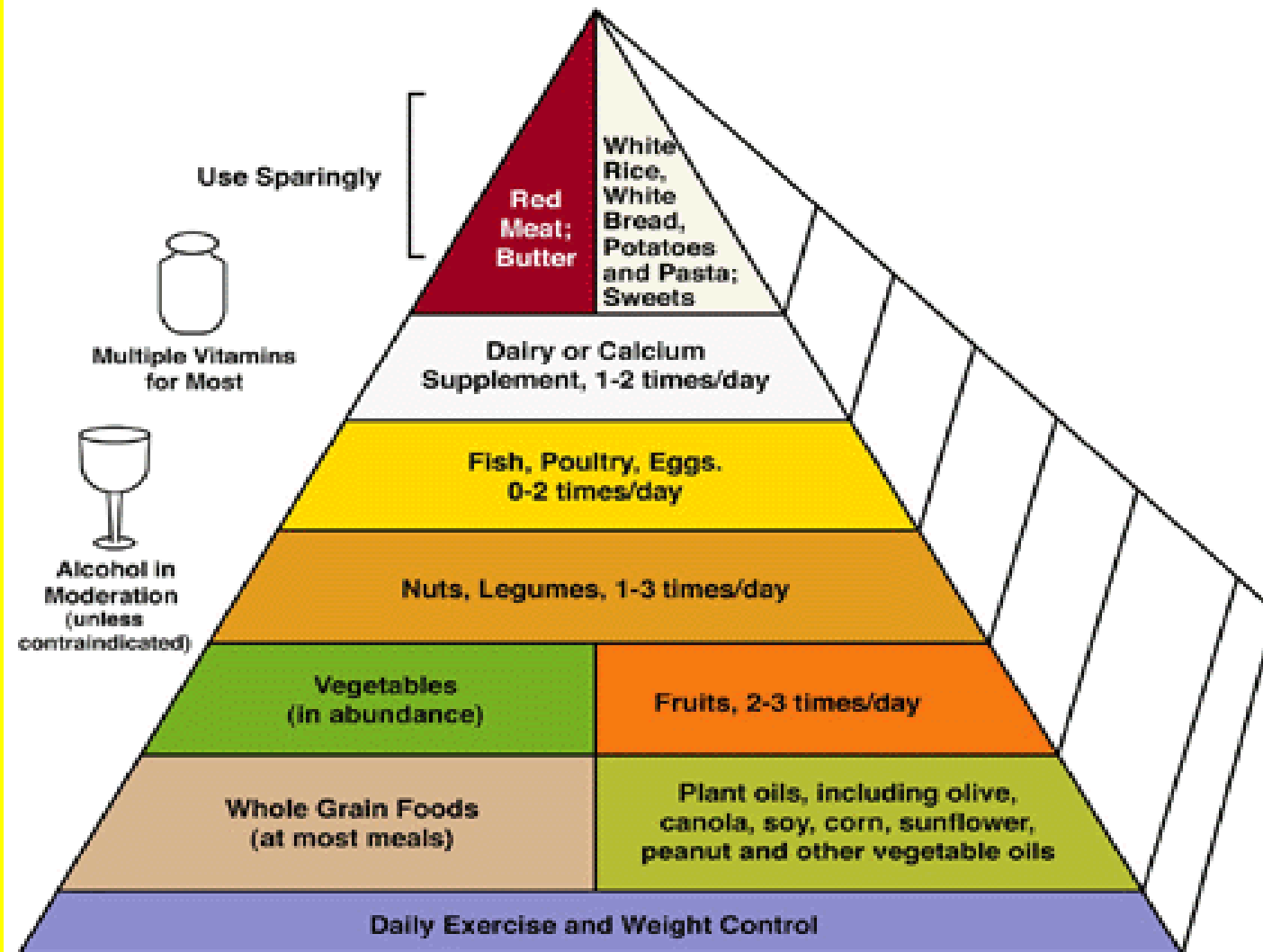


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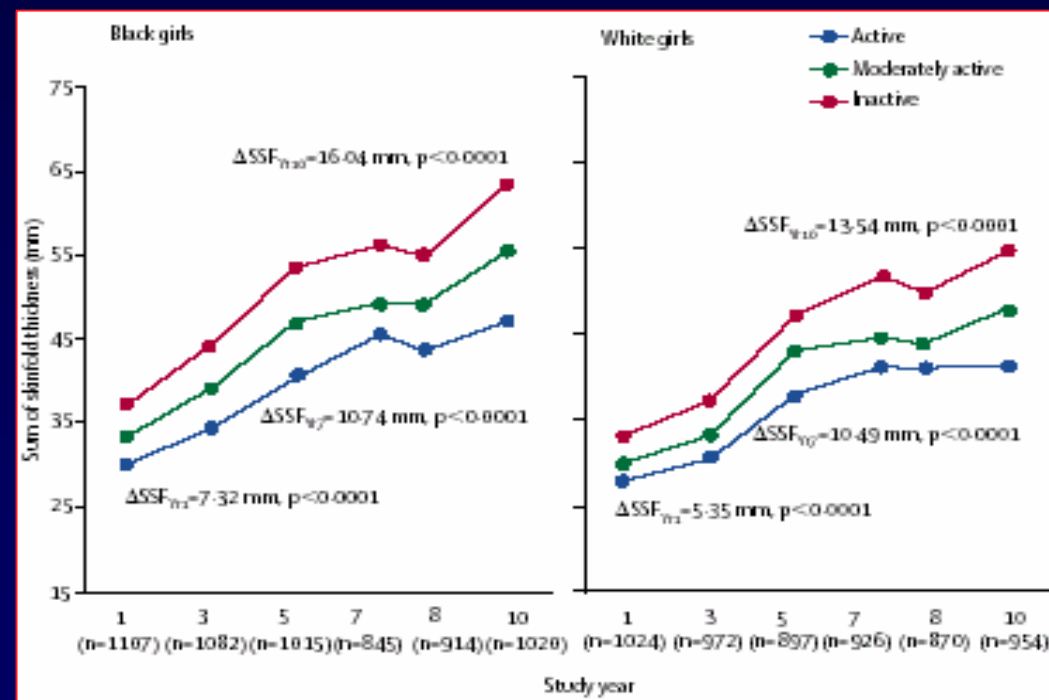
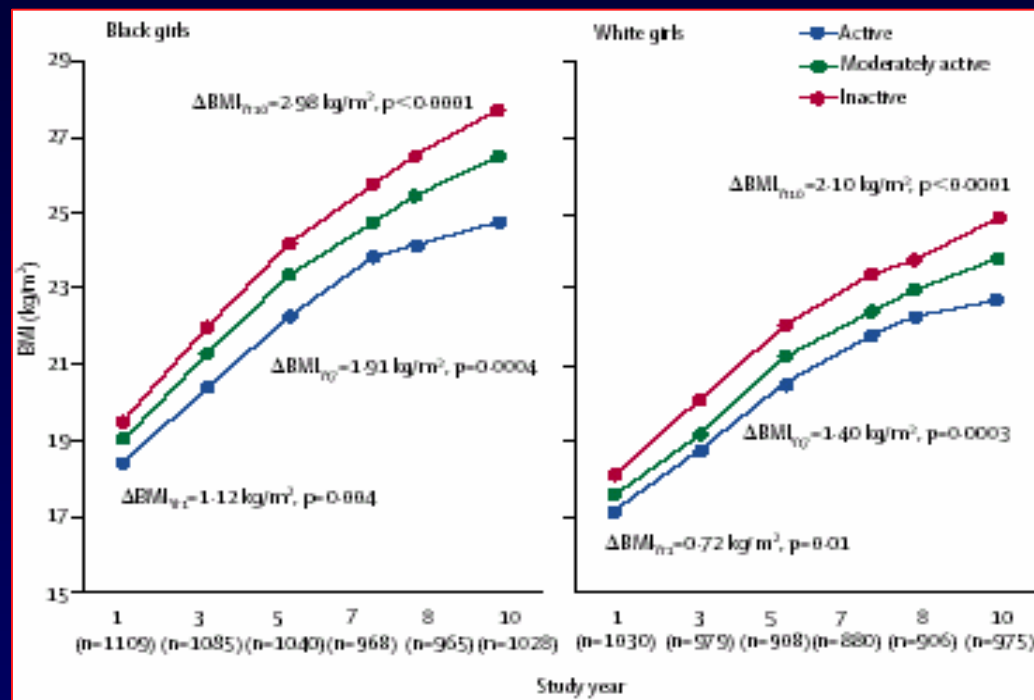
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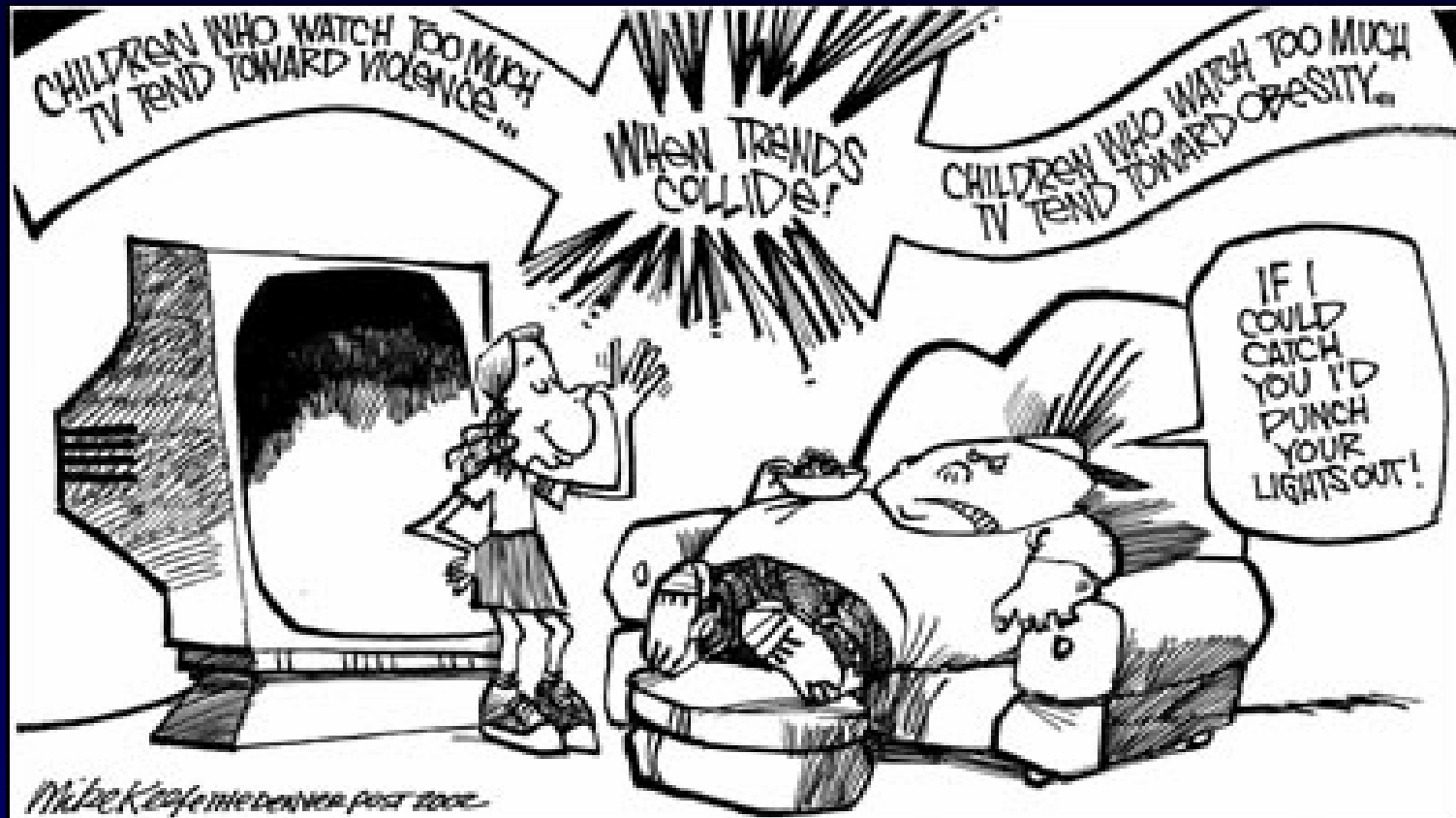
Healthy Eating Pyramid



livelli di attività fisica durante l'adolescenza possono influenzare significativamente il BMI e l'adiposità nell'età adulta.



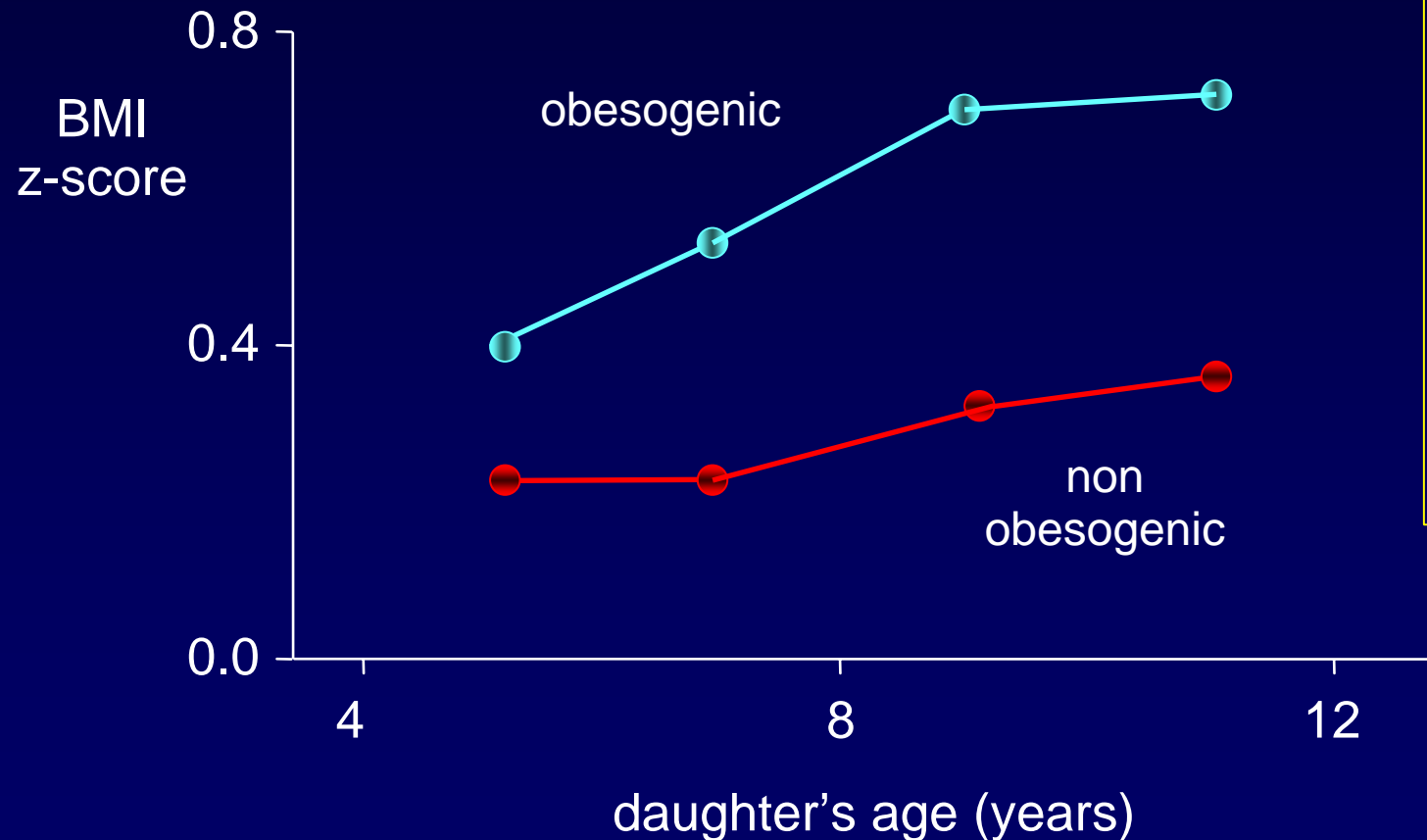
TV viewing, TV in the bedroom and overweight risk



For each additional hour per day of TV/video viewed (adjusted for age, sex, parental education, race) the odds ratio of children having a BMI > 85th percentile was 1.06.

Almost 40% of children had a TV set in their bedroom (OR 1.31)

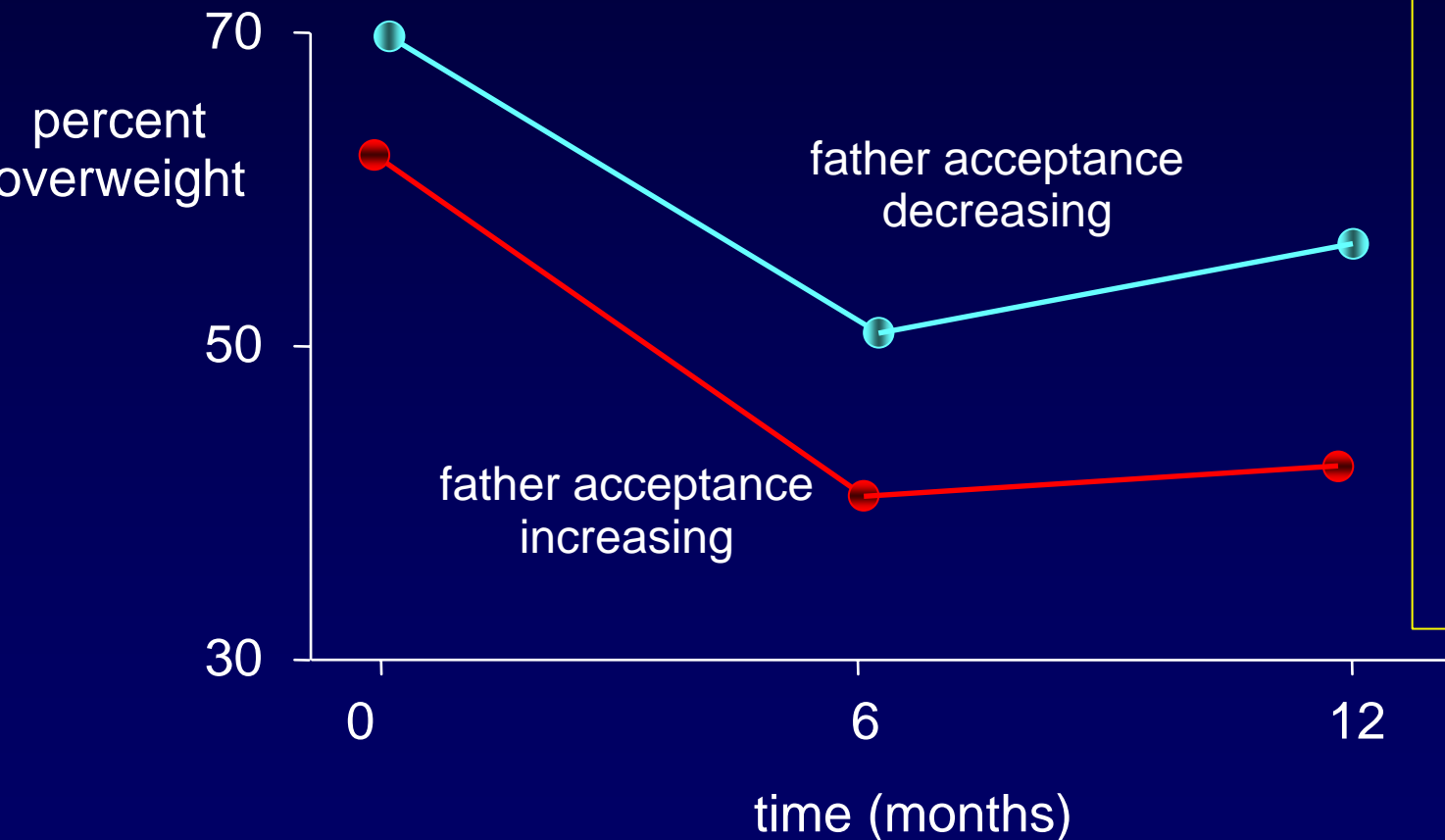
association of family environment with children's TV viewing and with low levels of physical activity



Family cluster

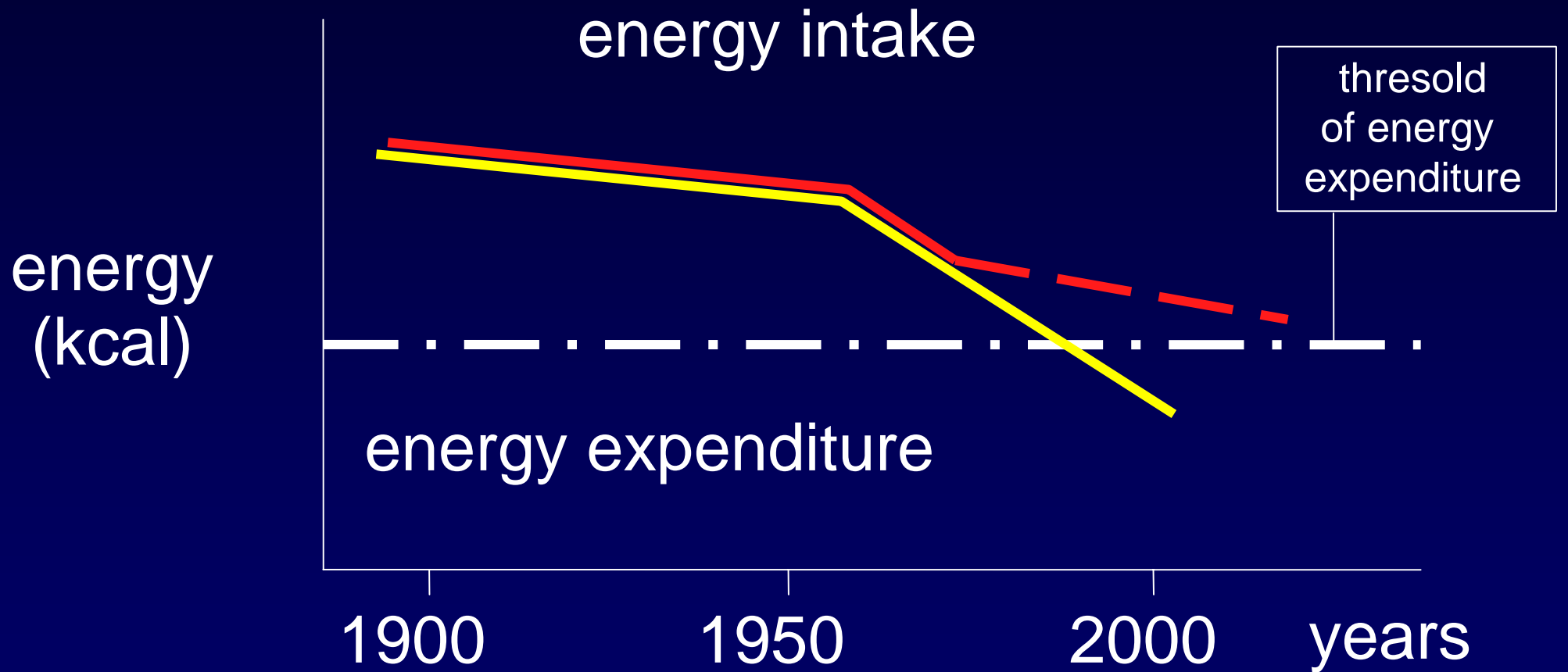
- Body fat (%)
- Fat intake (%)
- TV viewing (h/day)

parents' obesity-related behaviors predict girls change in BMI

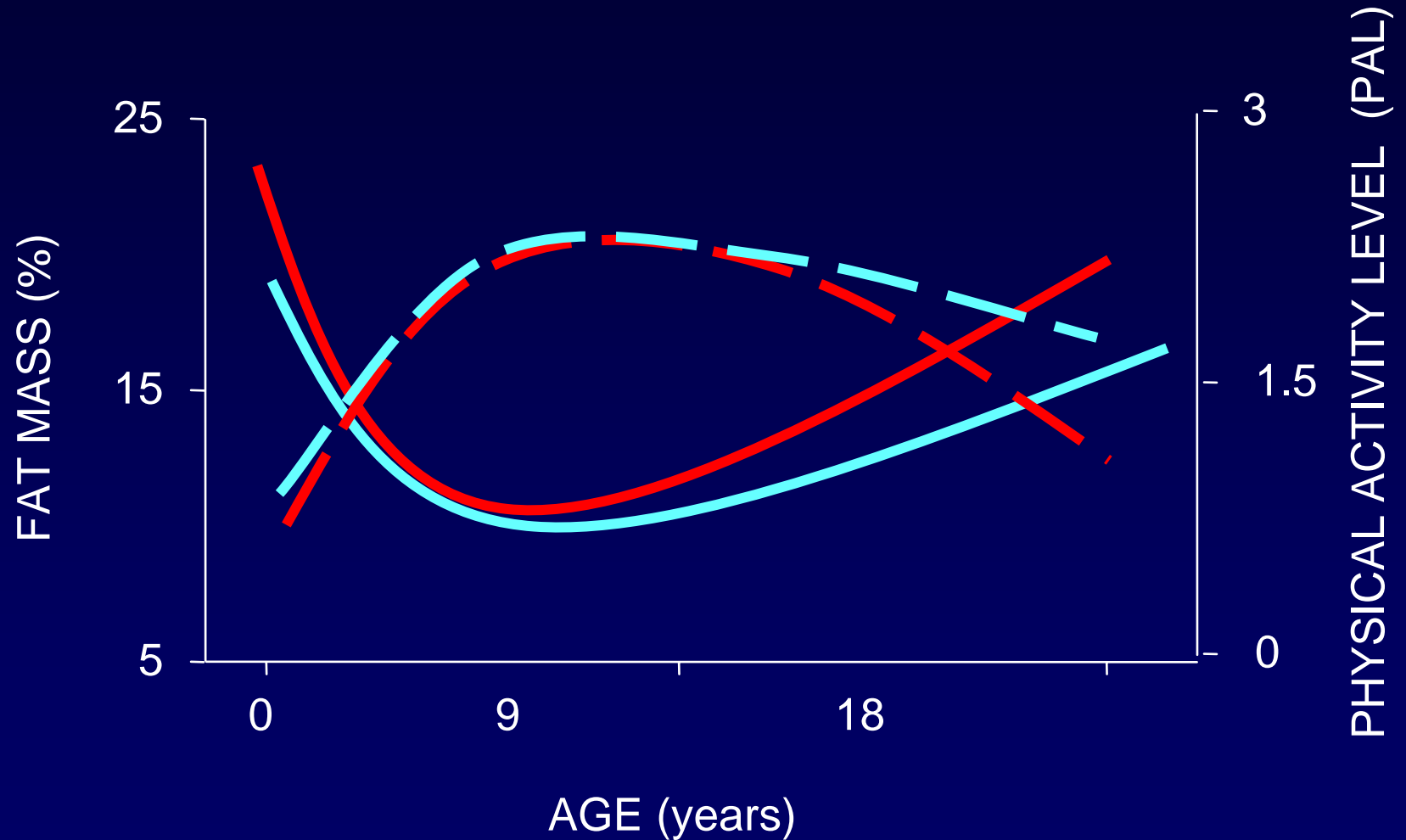


paternal but not maternal parenting style was related to child weight outcome

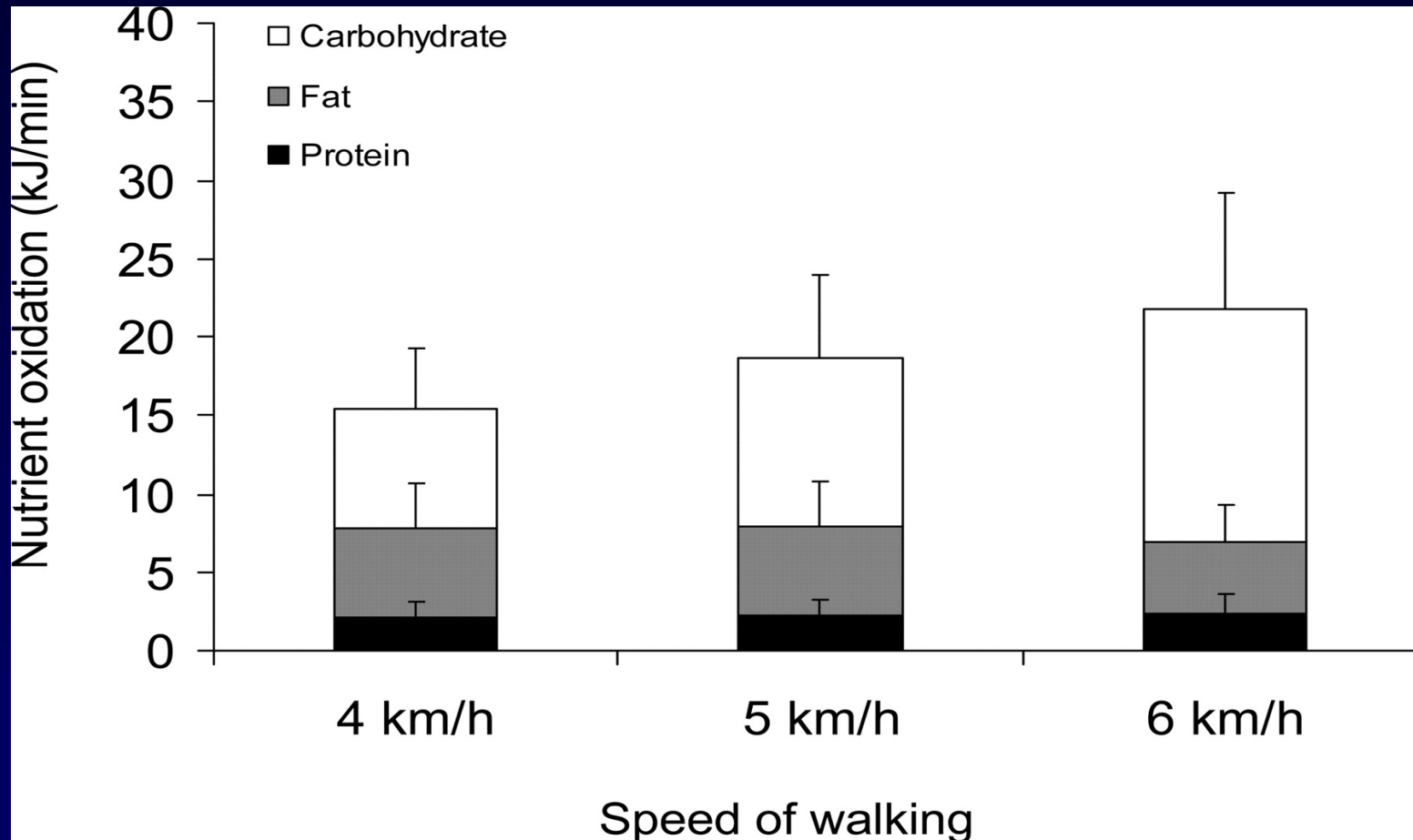
fathers' increase in acceptance period may be especially powerful because it is contrary to the usual developmental trend at this age, which is for children to perceive their parents as less accepting over time



PHYSICAL ACTIVITY AND BODY FAT



Nutrient oxidation measured during walking at speeds of 4, 5, and 6 km/h, respectively, in a group of obese prepubertal children



SOCIETA' ITALIANA DI PEDIATRIA
SIEDP SINUPE SIMA SIPPS FIMP ACP

**OBESITA' DEL BAMBINO E
DELL'ADOLESCENTE:
CONSENSUS SU PREVENZIONE,
DIAGNOSI-TERAPIA**

Istituto Scotti Bassani