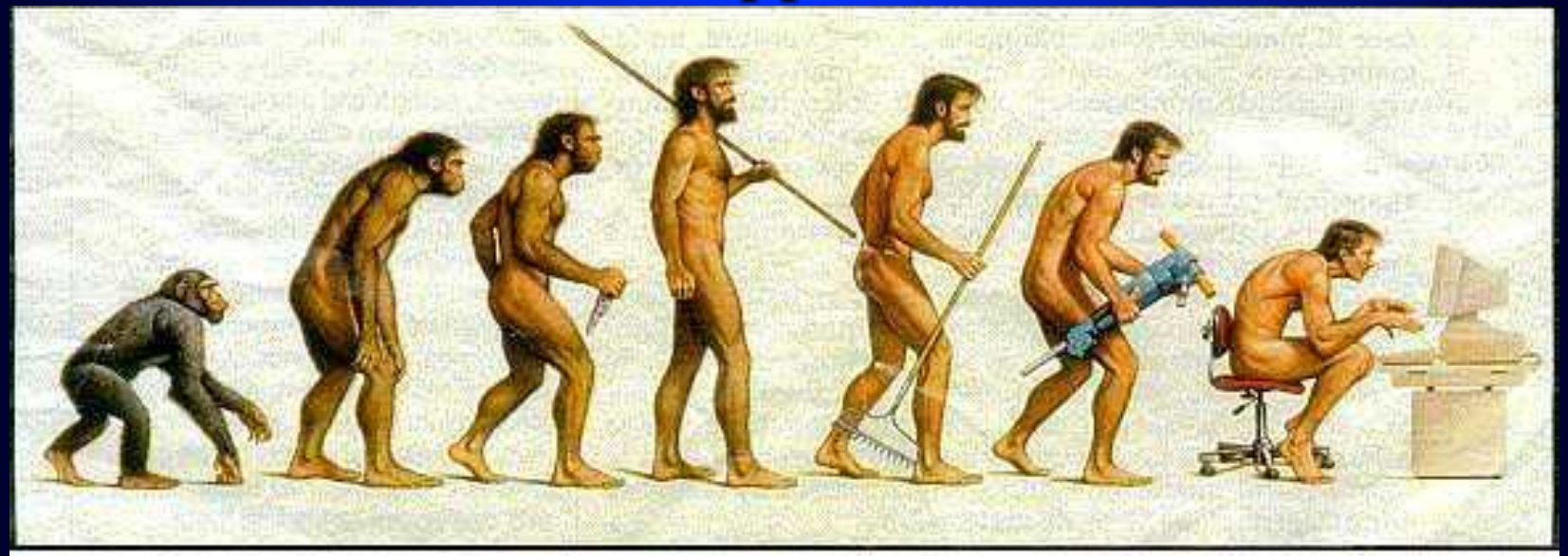
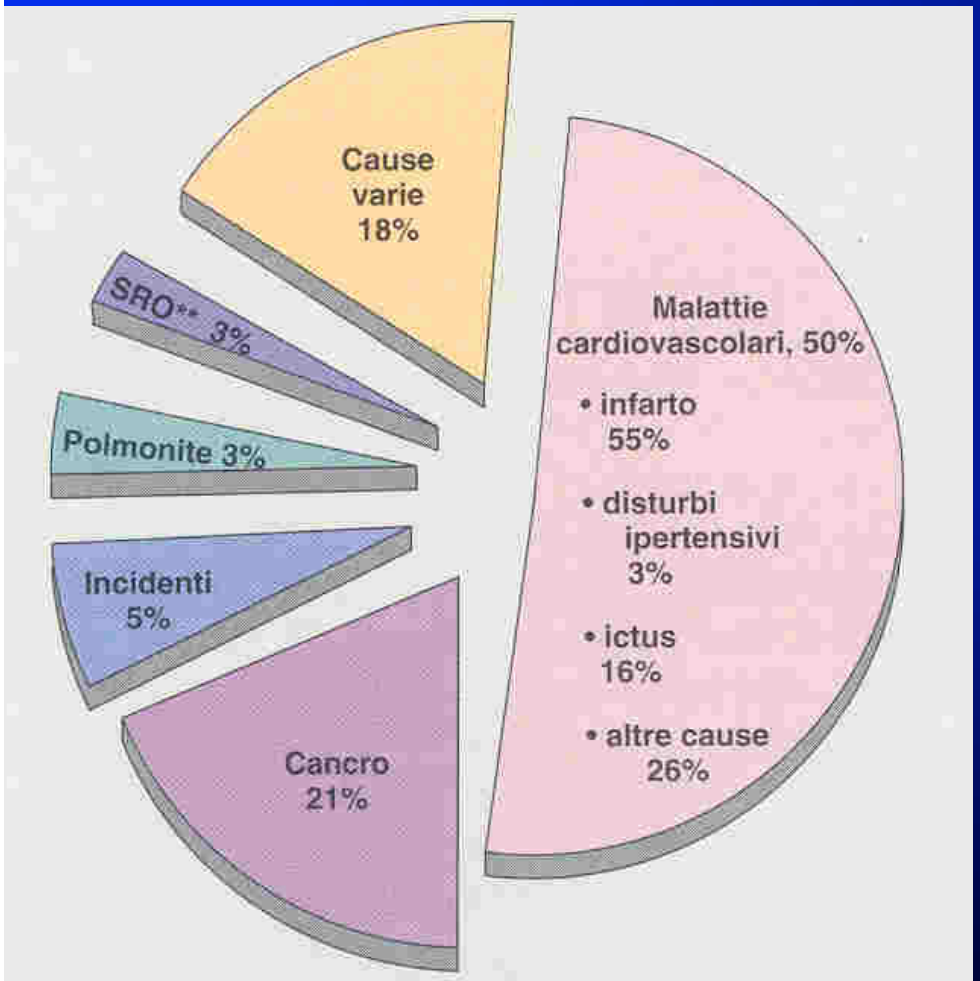
WHO: 70 % di tutte le morti saranno conseguenza dello stile di vita nel 2020

- **Inattività fisica**
- **Fumo di sigaretta**
- **Alcool**
- **Dieta, Sovrappeso, Obesità**

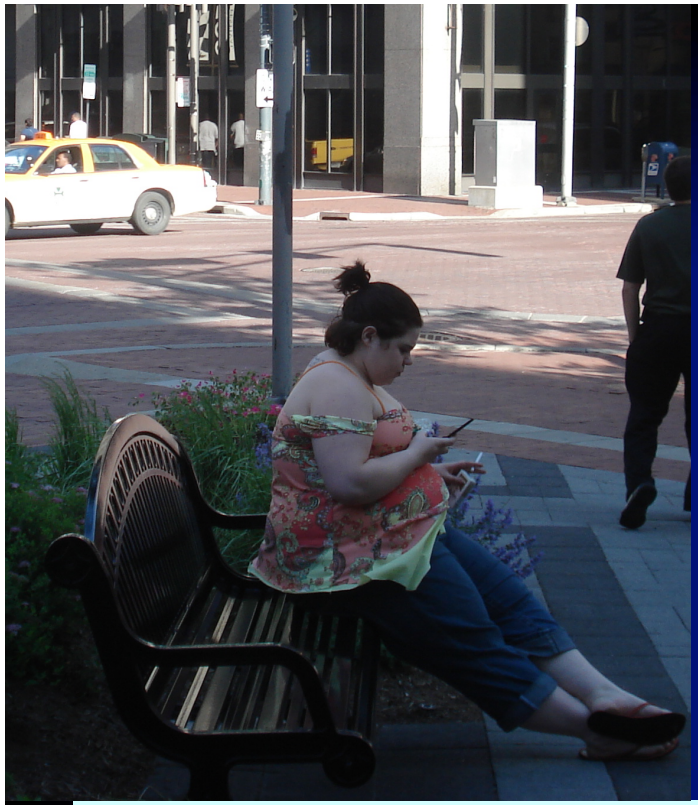


Incidenza delle Patologie che conducono alla Morte



*Basata sui dati dell'American Heart Association, "*1987 Heart Facts*." la spesa totale sostenuta per le malattie cardiovascolari, fu stimata nel 1987 intorno agli 85.2 miliardi di dollari.
**Sindrome respiratoria ostruttiva.

- **La Malattia aterosclerotica costituisce la prima causa di morte nel mondo occidentale (coronarie e vasi cerebrali)**



Fattori di Rischio della Malattia Aterosclerotica

OBESITA'
IPERTENSIONE ARTERIOSA
IPERCOLESTEROLEMIA
IPERGLICEMIA
ELEVATO RAPPORTO LDL/HDL
FUMO

National Institute of Health

La SEDENTARIETÀ costituisce il principale fattore di rischio per lo sviluppo di malattie cardiovascolari e si consiglia a tutta la popolazione di praticare attività fisica e, nel caso questo già avvenisse, è consigliato di praticarla più spesso e ad una maggiore intensità.

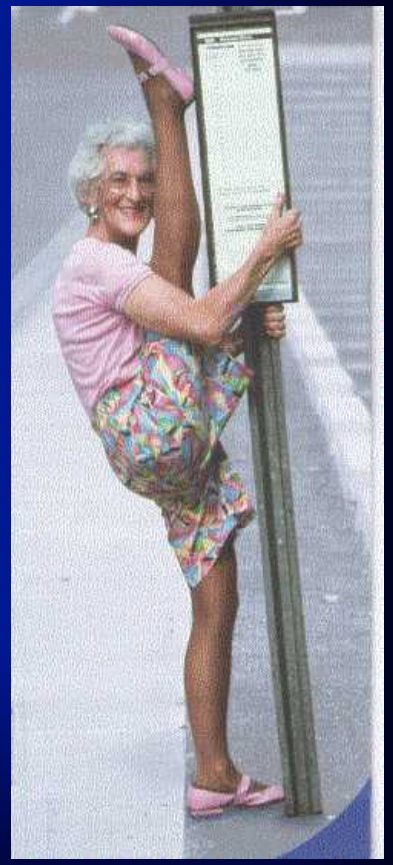
NIH Consens Statement. Physical activity and cardiovascular health. 1995

F.W. Booth et al, 2002 hanno definito la :

Sedentary Death Syndrome (SeDS)

disordini legati allo stile di vita sedentario determinanti un incremento della mortalità

Debolezza muscolare, bassa densità ossea, iperglicemia, glucosuria, bassi livelli di HDL, obesità, diminuita resistenza fisica e tachicardia a riposo



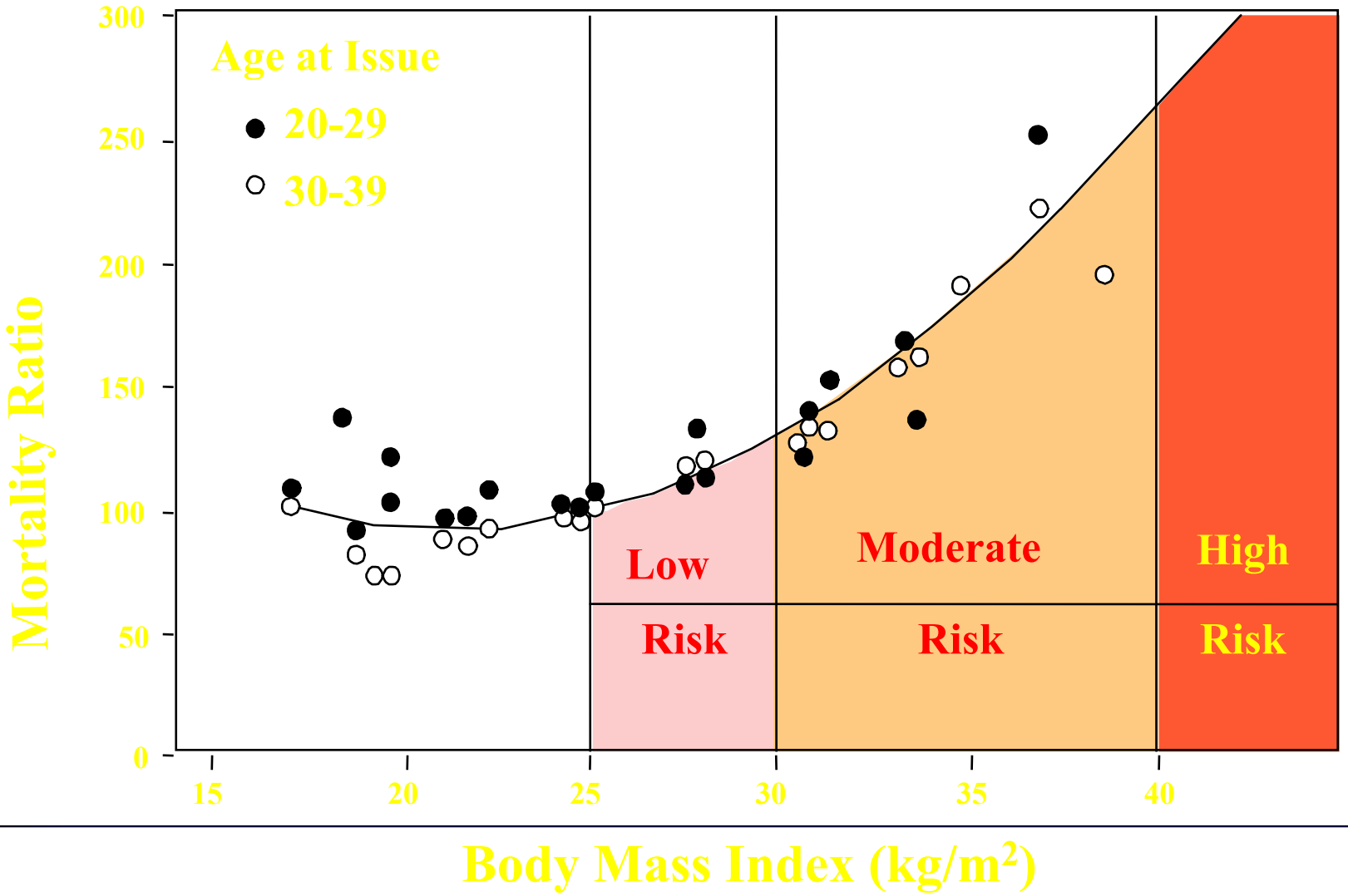
Conditions that are caused or worsened by sedentary lifestyle

Sedentary living increases these conditions

1. Angina, heart attack, coronary artery disease
2. Congestive heart failure
3. Hypertension
4. Peripheral vascular disease
5. Stroke
6. Type II diabetes
7. High blood triglyceride
8. High blood cholesterol
9. Low blood HDL
10. Obesity
11. Gallstone disease
12. Breast cancer
13. Colon cancer
14. Pancreatic cancer
15. Prostate cancer
16. Osteoporosis
17. Low Back pain
18. Stiff joints
19. Sarcopenia
20. Physical frailty
21. Less cognitive function
22. Depression
23. Sleep apnea
24. Lower quality of life
25. Premature mortality

F.W. Booth et al, 2002

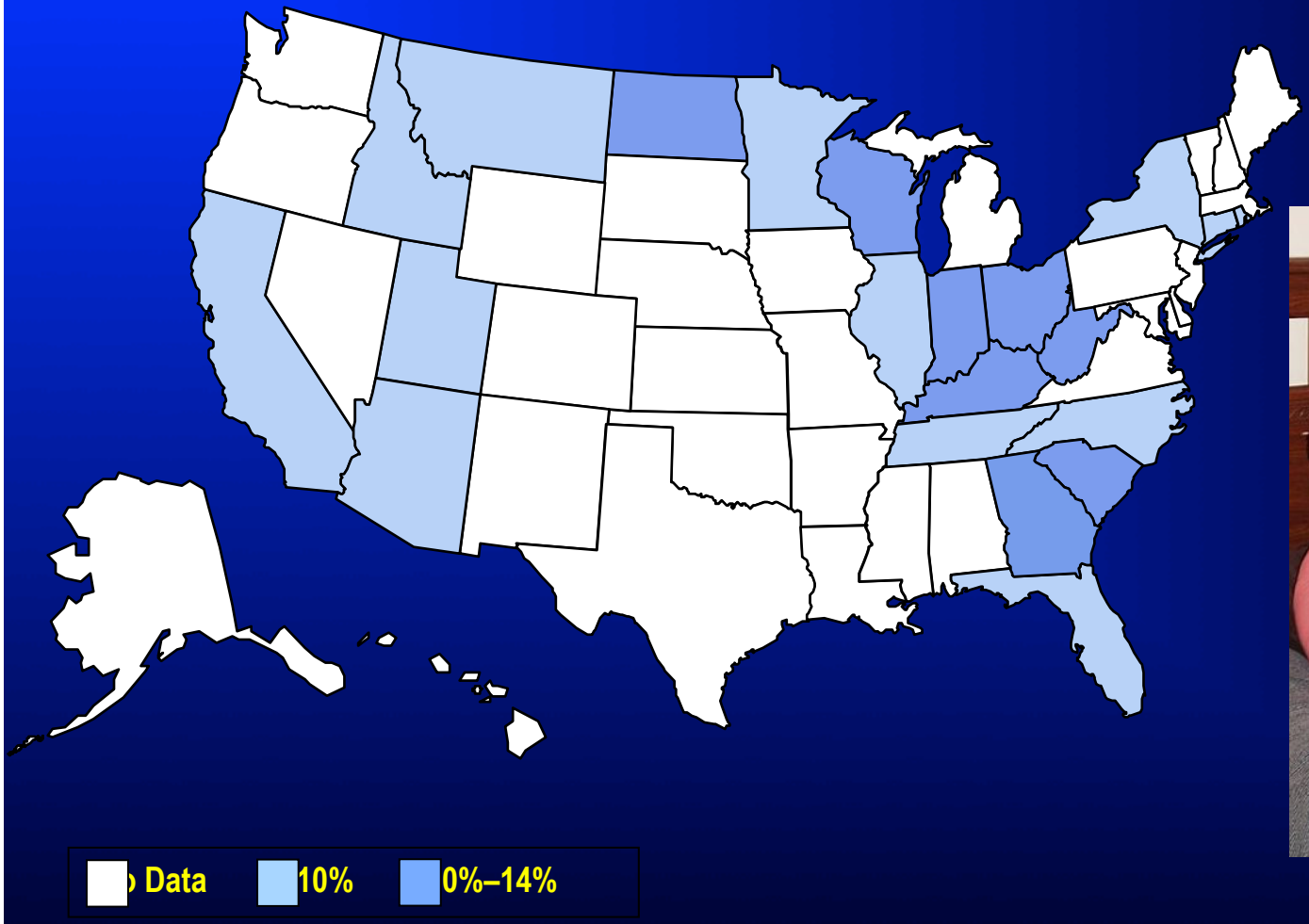
Relation of BMI to mortality

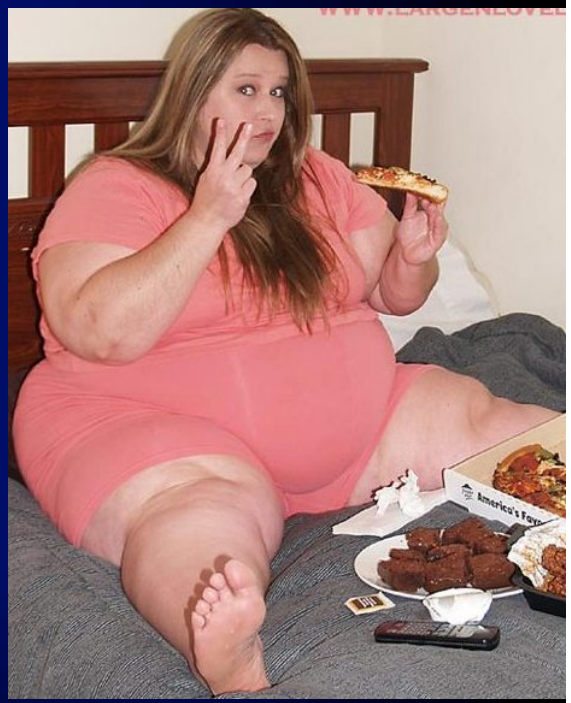


Bray et al. *ANYAS* 1987

Obesity Trends* Among U.S. Adults

BRFSS, 1985

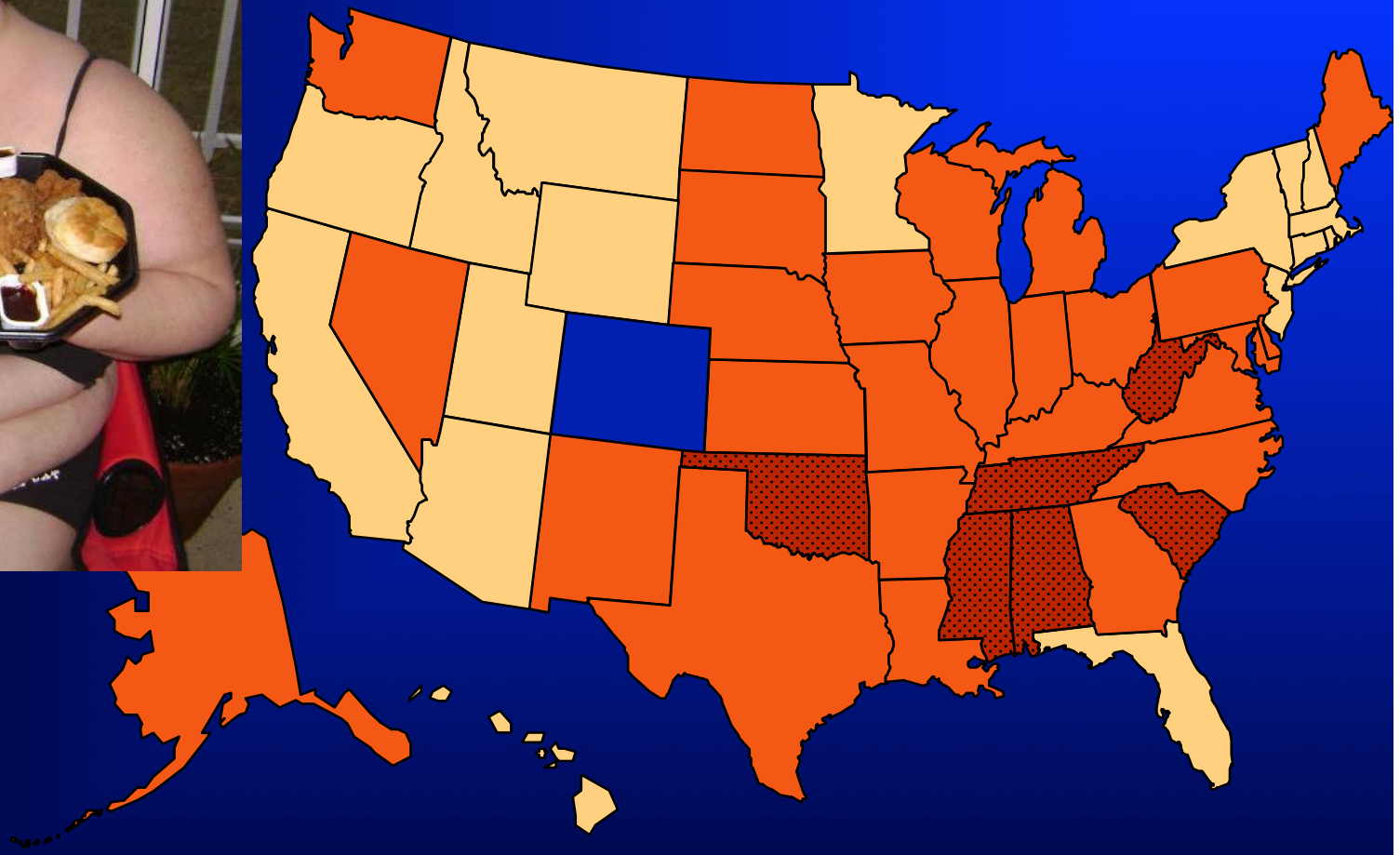




(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Obesity Trends* Among U.S. Adults

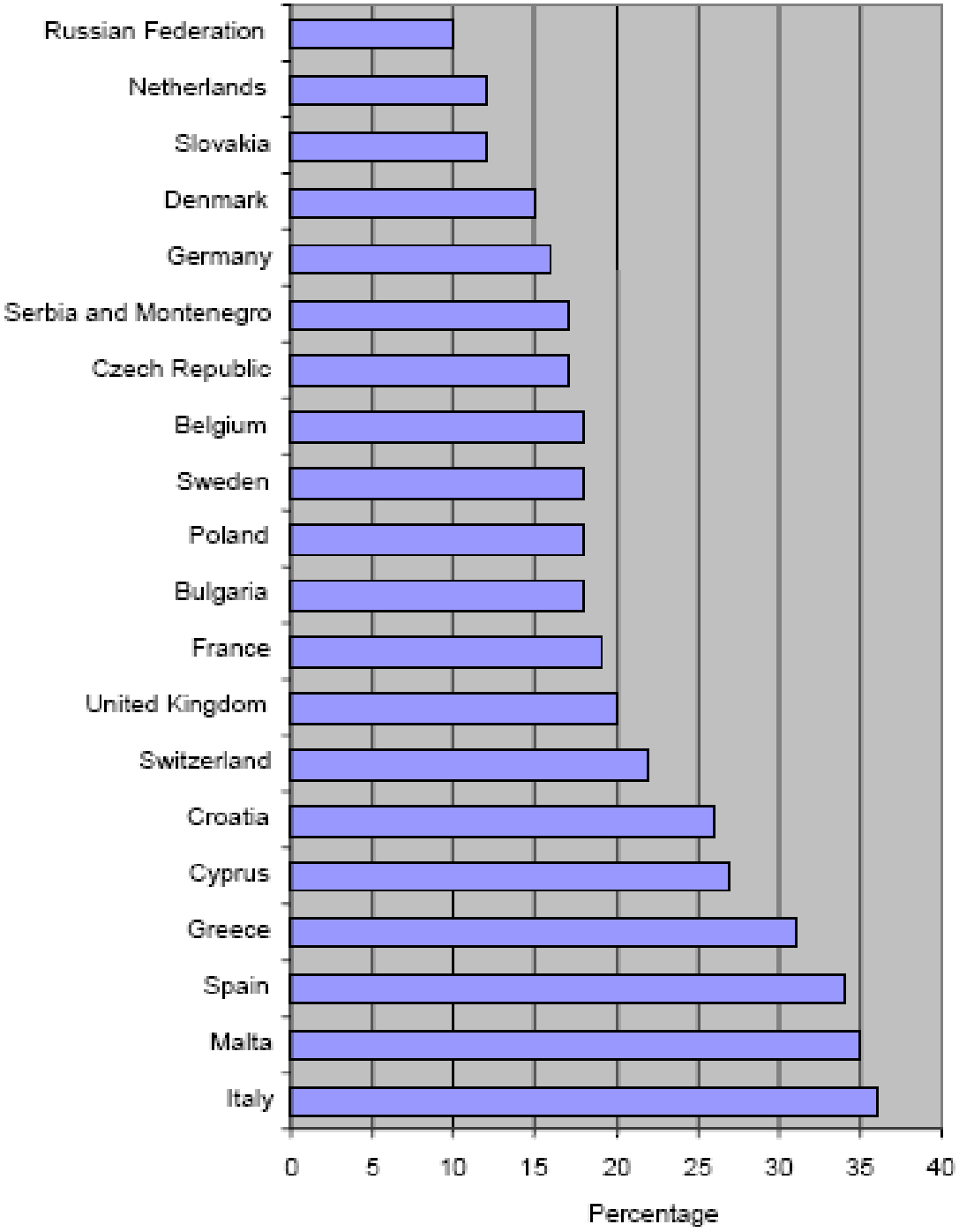
BRFSS, 2011



No Data | <10% | 10%–14% | 15%–19% | 20%–24% | 25%–29% | ≥30%

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Prevalenza di bambini (7-11anni) in sovrappeso o obesi in alcune Nazioni Europee



Studi Epidemiologici su Rischio di malattia aterosclerotica

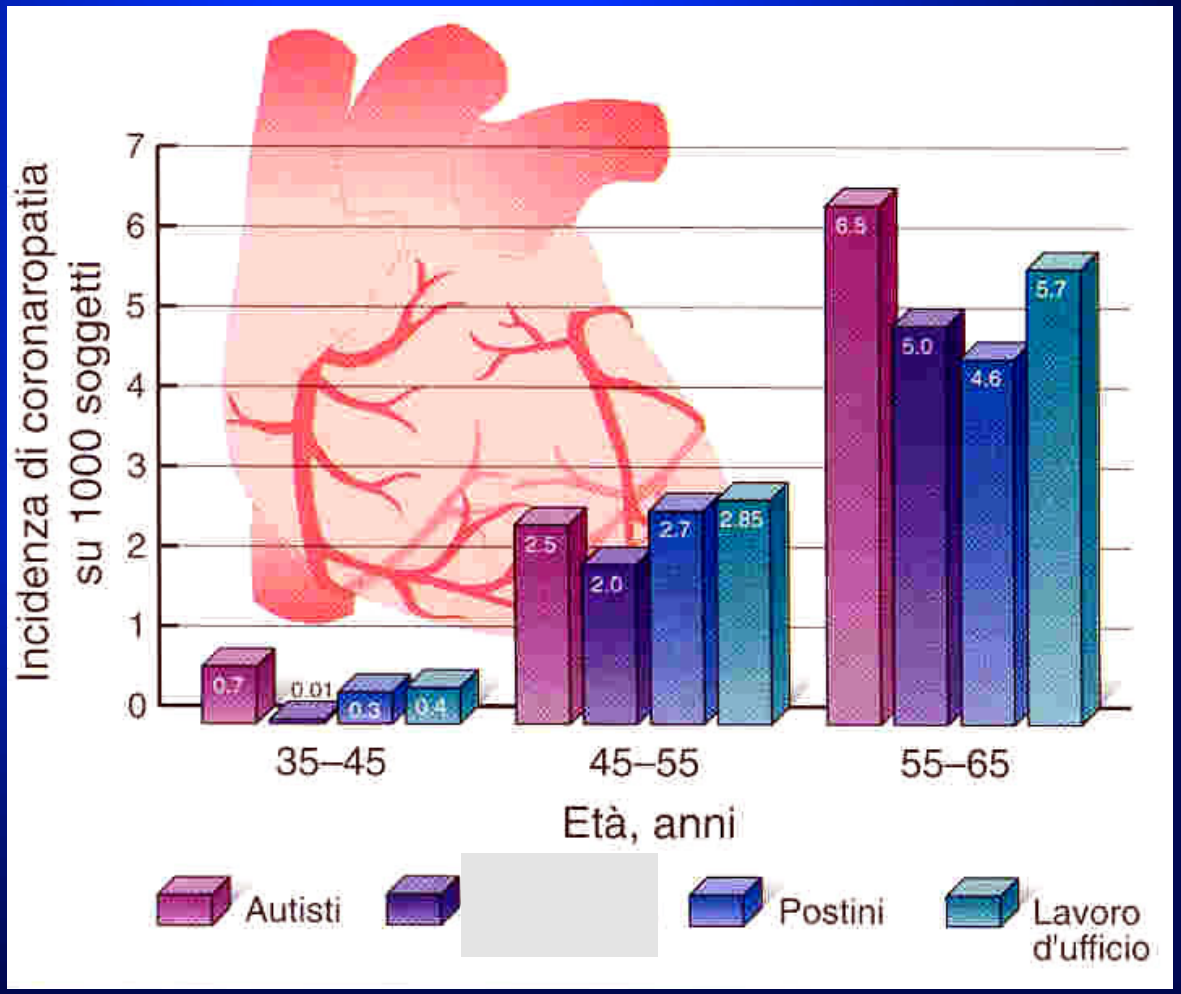
- La relazione tra attivita' fisica e stato di salute e'stata oggetto di studi a partire dagli anni 50.
- Uno dei primi studi e' stato quelo di Morris et al (1953), che confronto' l'incidenza di malattie cardiovascolari negli autisti e nei bigliettai degli Autobus Londinesi.

Morris, J. N. et al.: ***Coronary heart-disease and physycal activity of work.*** **"Lancet", 265: 1053, 1953**

Attività fisica ed incidenza di coronaropatie

I Gruppo
31.000 soggetti
(Autisti-Bigliettai)

II Gruppo
110.000 soggetti
(Postini-Lavoro d'ufficio)



Morris, J. N. et al.: *Coronary heart-disease and physycal activity of work.* "Lancet", 265: 1053, 1953

The New England Journal of Medicine

VOLUME 346 MARCH 14, 2002 NUMBER 11

EXERCISE CAPACITY AND MORTALITY AMONG MEN REFERRED FOR EXERCISE TESTING

JONATHAN MYERS, PH.D., MANISH PRAKASH, M.D., VICTOR FROELICHER, M.D., DAT DO, M.D., SARA PARTINGTON, B.SC., AND J. EDWIN ATWOOD, M.D.

ABSTRACT

Background Exercise capacity is known to be an important prognostic factor in patients with cardiovascular disease, but it is uncertain whether it predicts mortality equally well among healthy persons. There is also uncertainty regarding the predictive power of exercise capacity relative to other clinical and exercise-test variables.

Methods We studied a total of 6213 consecutive men referred for treadmill exercise testing for clinical reasons during a mean (±SD) of 6.2±3.7 years of follow-up. Subjects were classified into two groups: 3679 had an abnormal exercise-test result or a history of cardiovascular disease, or both, and 2534 had a normal exercise-test result and no history of cardiovascular disease. Overall mortality was the end point.

Results There were a total of 1256 deaths during the follow-up period, resulting in an average annual mortality of 2.6 percent. Men who died were older than those who survived and had a lower maximal heart rate, lower maximal systolic and diastolic blood pressure, and lower exercise capacity. After adjustment for age, the peak exercise capacity measured in metabolic equivalents (MET) was the strongest predictor of the risk of death among both normal subjects and those with cardiovascular disease. Absolute peak exercise capacity was a stronger predictor of the risk of death than the percentage of the age-predicted value achieved, and there was no interaction between the use or nonuse of beta-blockade and the predictive power of exercise capacity. Each 1-MET increase in exercise capacity conferred a 12 percent improvement in survival.

Conclusions Exercise capacity is a more powerful predictor of mortality among men than other established risk factors for cardiovascular disease. (N Engl

EXERCISE CAPACITY AND MORTALITY AMONG MEN REFERRED FOR EXERCISE TESTING

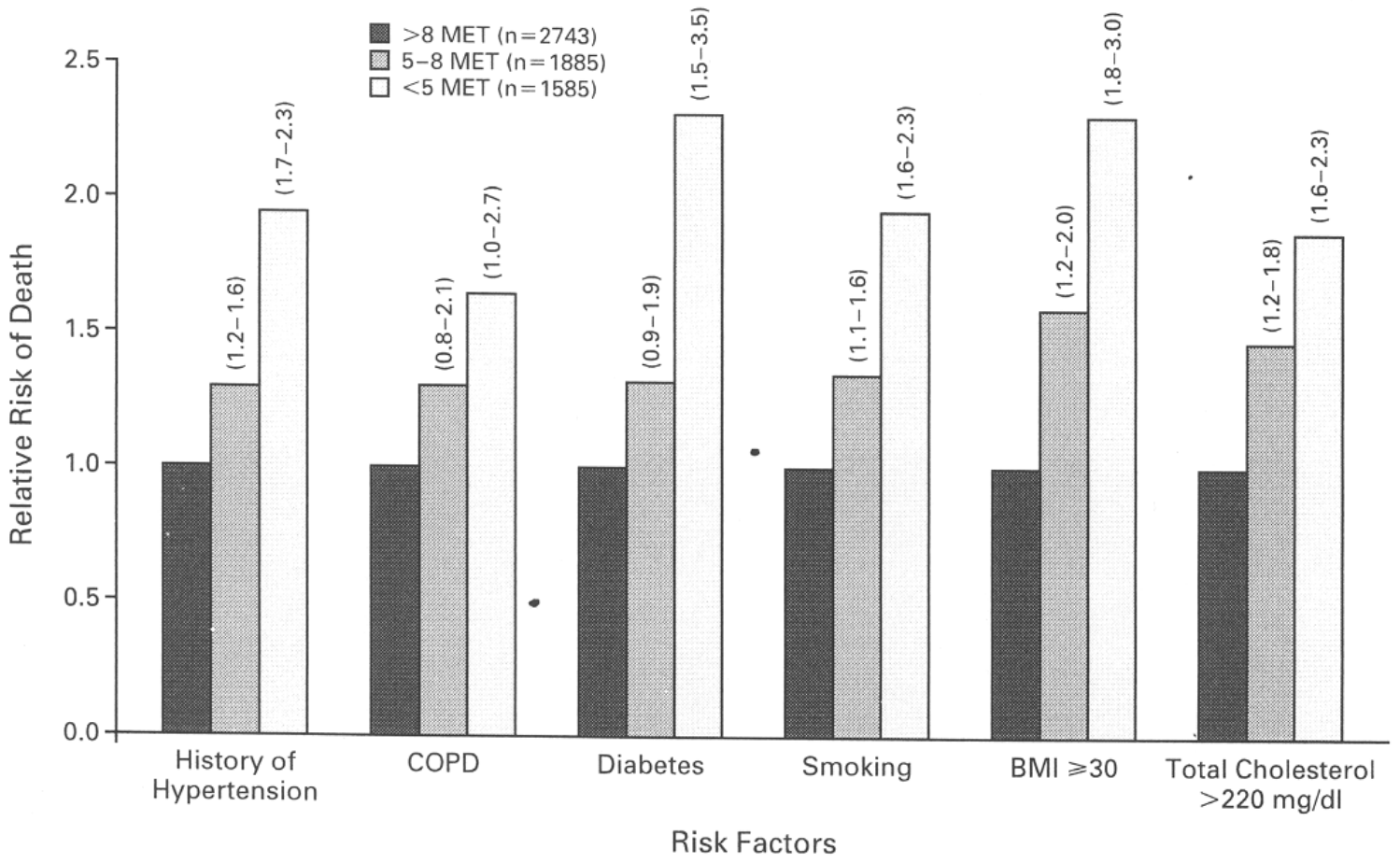
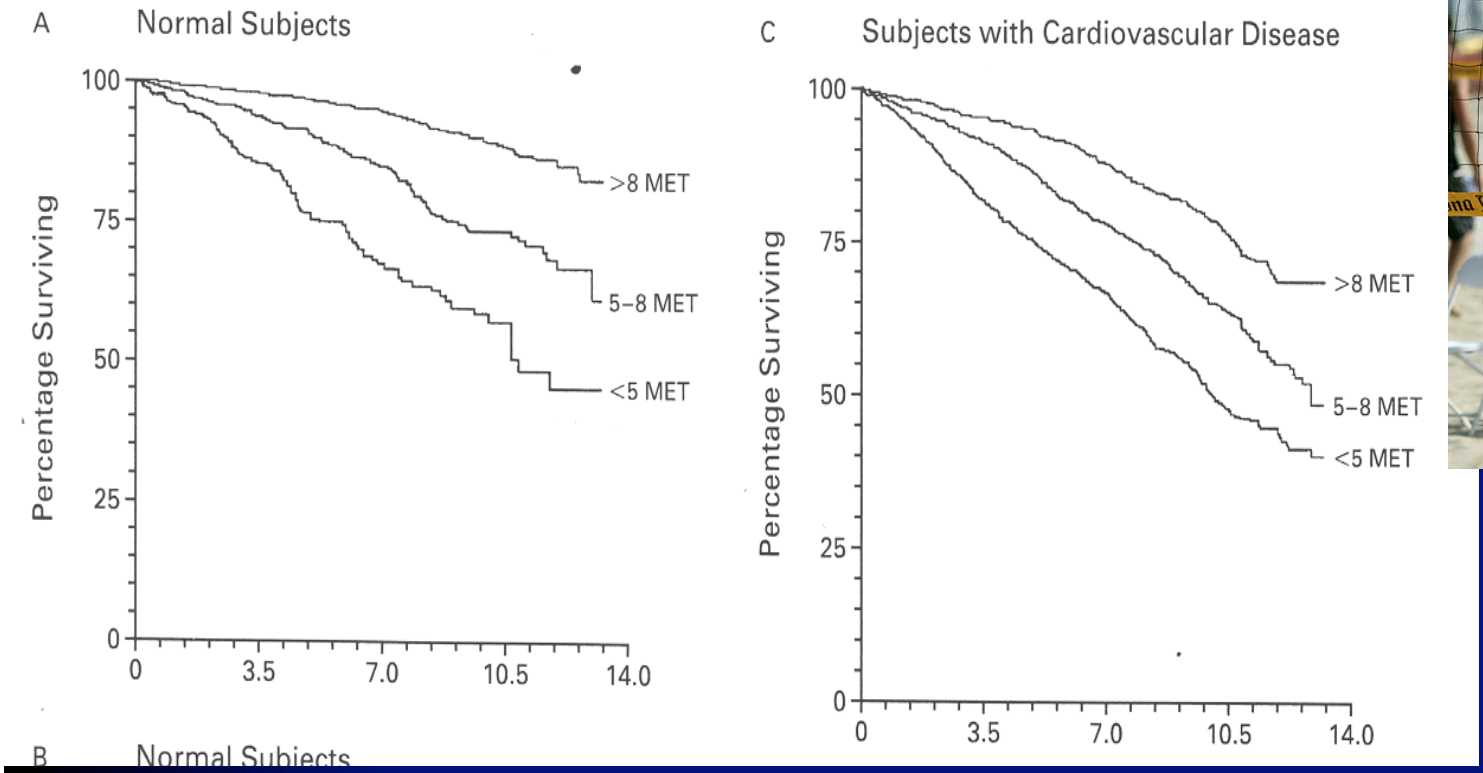


Figure 1. Relative Risks of Death from Any Cause among Subjects with Various Risk Factors Who Achieved an Exercise Capacity of Less Than 5 MET or 5 to 8 MET, as Compared with Subjects Whose Exercise Capacity Was More Than 8 MET.

Numbers in parentheses are 95 percent confidence intervals for the relative risks. BMI denotes body-mass index, and COPD chronic obstructive pulmonary disease.

EXERCISE CAPACITY AND MORTALITY AMONG MEN REFERRED FOR EXERCISE TESTING



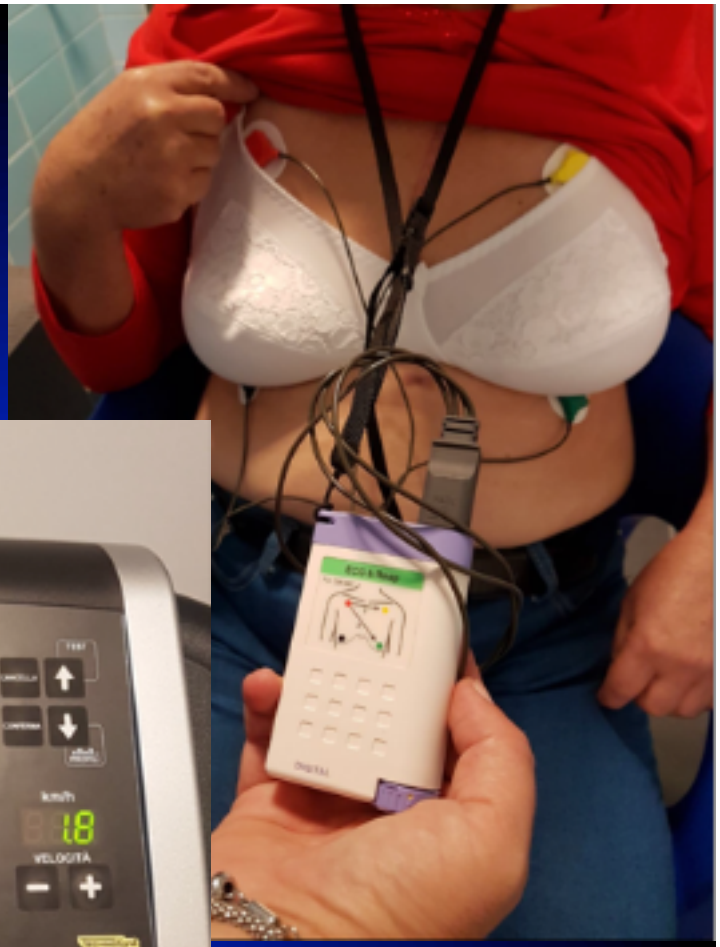
The New England
Journal of Medicine

VOLUME 346 MARCH 14, 2002 NUMBER 11

Se il 10% degli adulti sedentari tra i 35 e i 74 anni iniziassero a camminare per almeno 1 ora al giorno i costi annuali della spesa sanitaria per la malattia coronarica si ridurrebbero di 5,6 miliardi di US $

Jones TF, Eaton CB.
Cost -benefit analysis of walking to prevent coronary artery heart disease. Arch. Fam. Med. 1994;3:703-10


OBIETTIVO
OBIETTIVO
%
bpm
kcal
km/h
0.0
127
1
1.8
PENDENZA
FREQ. CARD.
CALORIE
VELOCITÀ
PAUSA
AVVIO RAPIDO
STOP



Caso clinico

- Donna di 65 anni recente IMA, trattata con plastica apicale del ventricolo sinistro e severa disfuzione ventricolare

Ha eseguito riabilitazione degenziale e poi successivamente ha iniziato terapia ambulatoriale in telemetria presso il nostro centro.