



**ATTIVITÀ MOTORIA E
BENESSERE PSICOFISICO**



CENTRO ANALISI MONZA

DIETA e FITNESS

Ferruccio Cavanna e Andrea Molteni



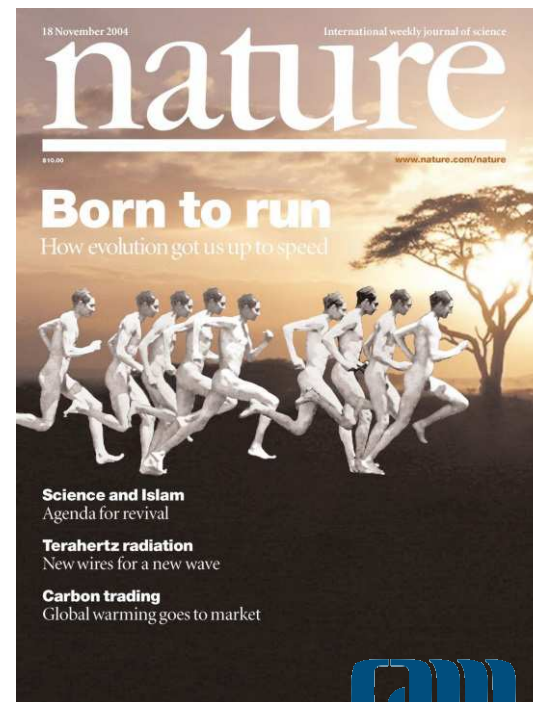
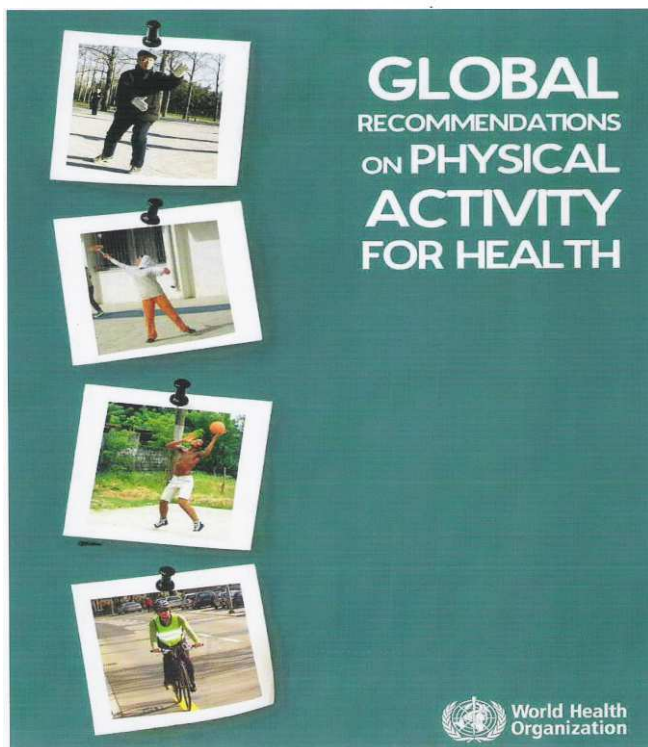


Organizzazione Mondiale della Sanità

2.1

PUBLIC HEALTH SIGNIFICANCE OF PHYSICAL ACTIVITY

Physical inactivity has been identified as the fourth leading risk factor for global mortality (6% of deaths globally). This follows high blood pressure (13%), tobacco use (9%) and high blood glucose (6%). Overweight and obesity are responsible for 5% of global mortality (1).



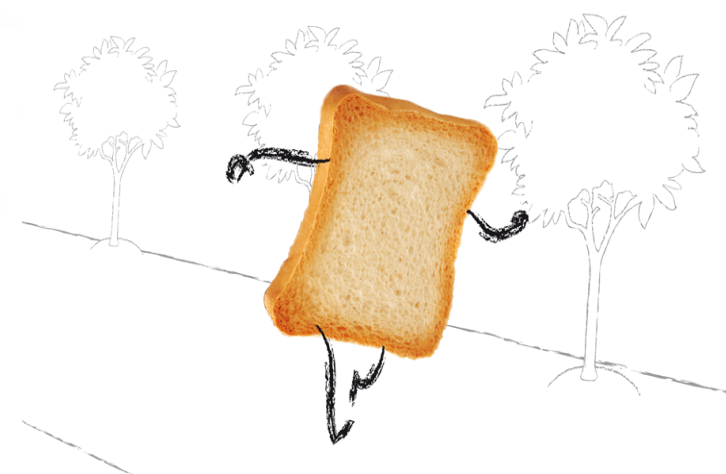
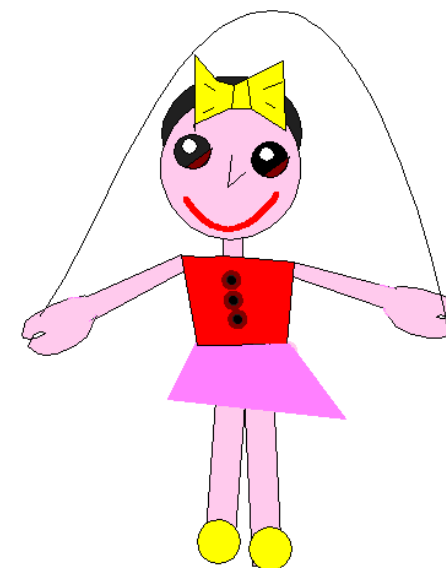
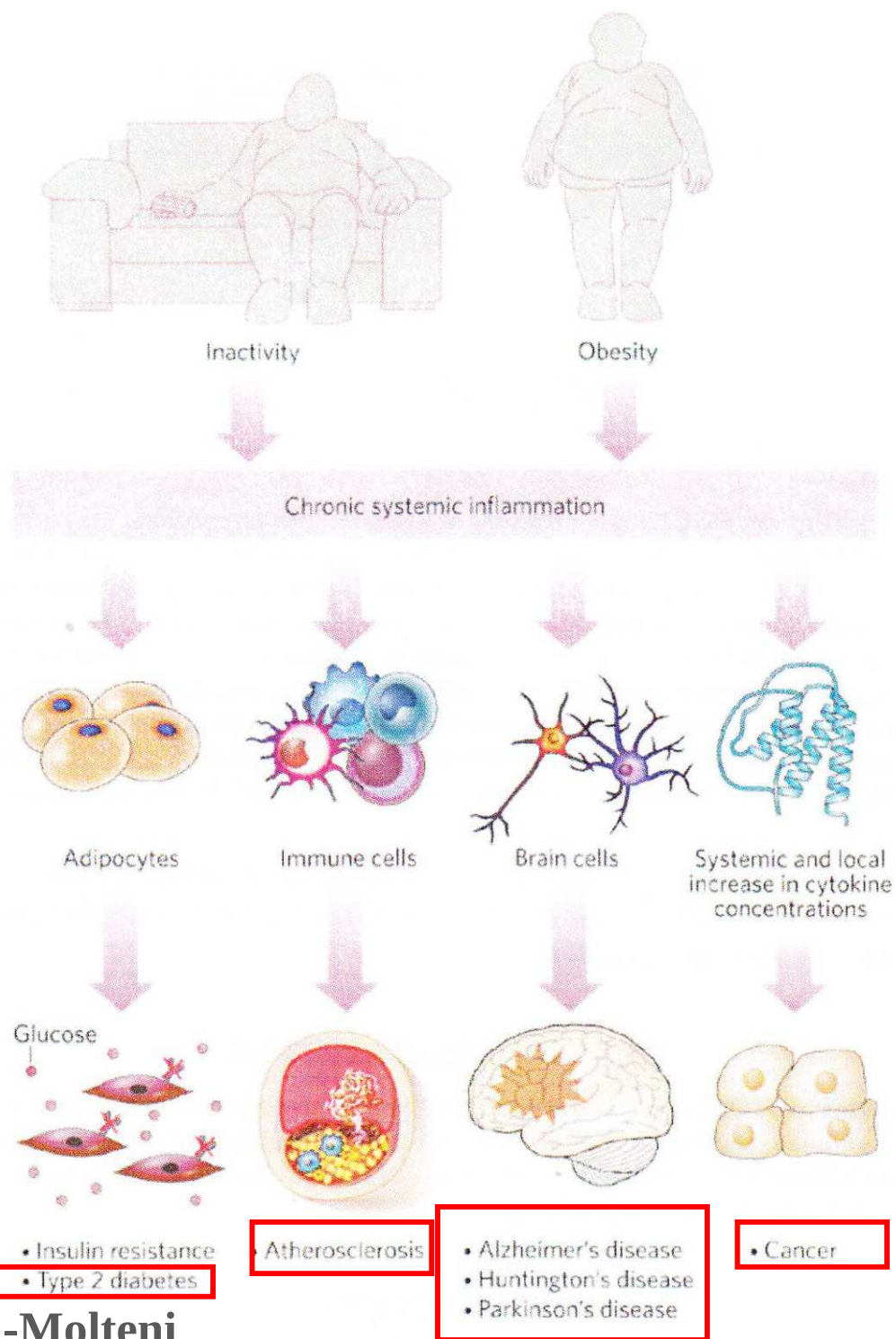
Transactions of the American Clinical and Climatological Association Volume 121 2010

Lettura magistrale del Presidente Wayne Alexander

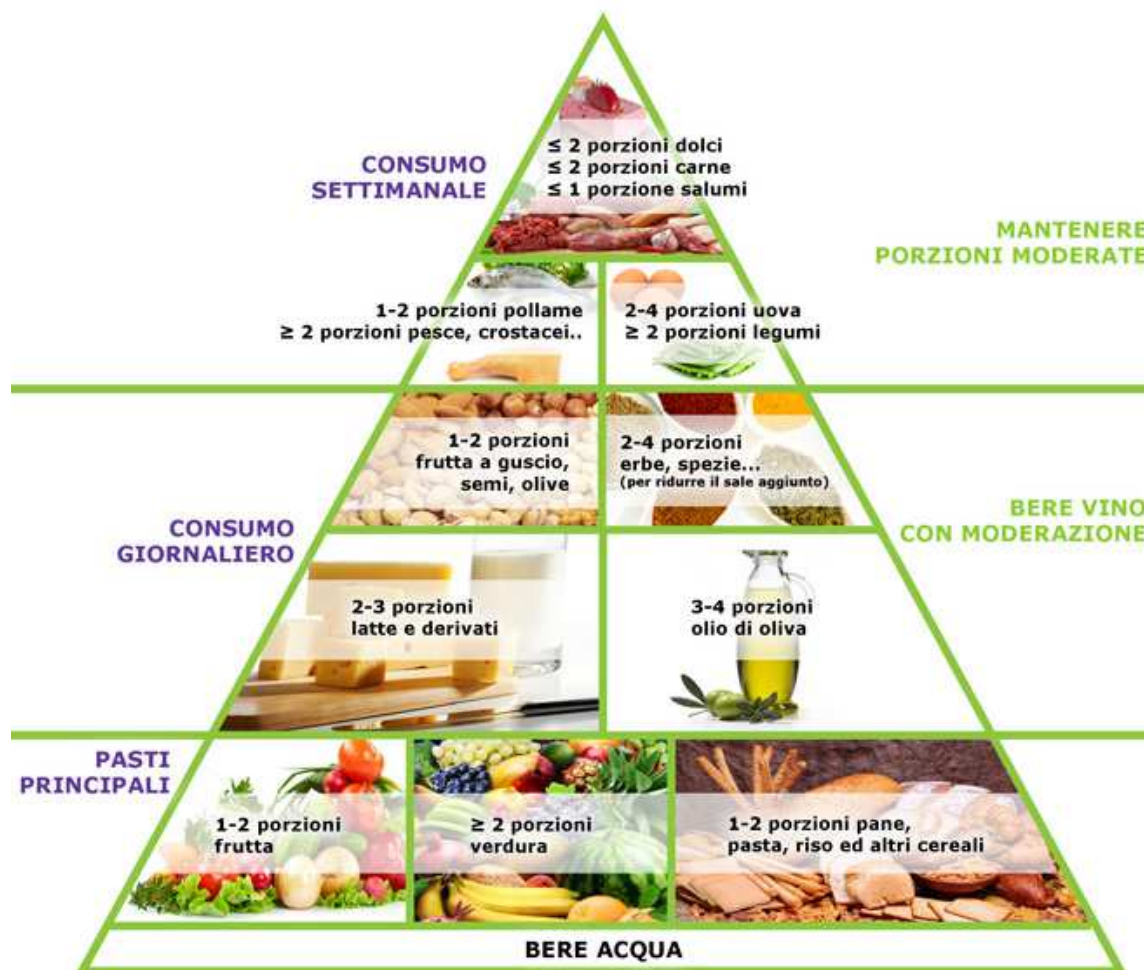
INTRODUCTION

Lifestyle Choices as the Fundamental Platform for Health

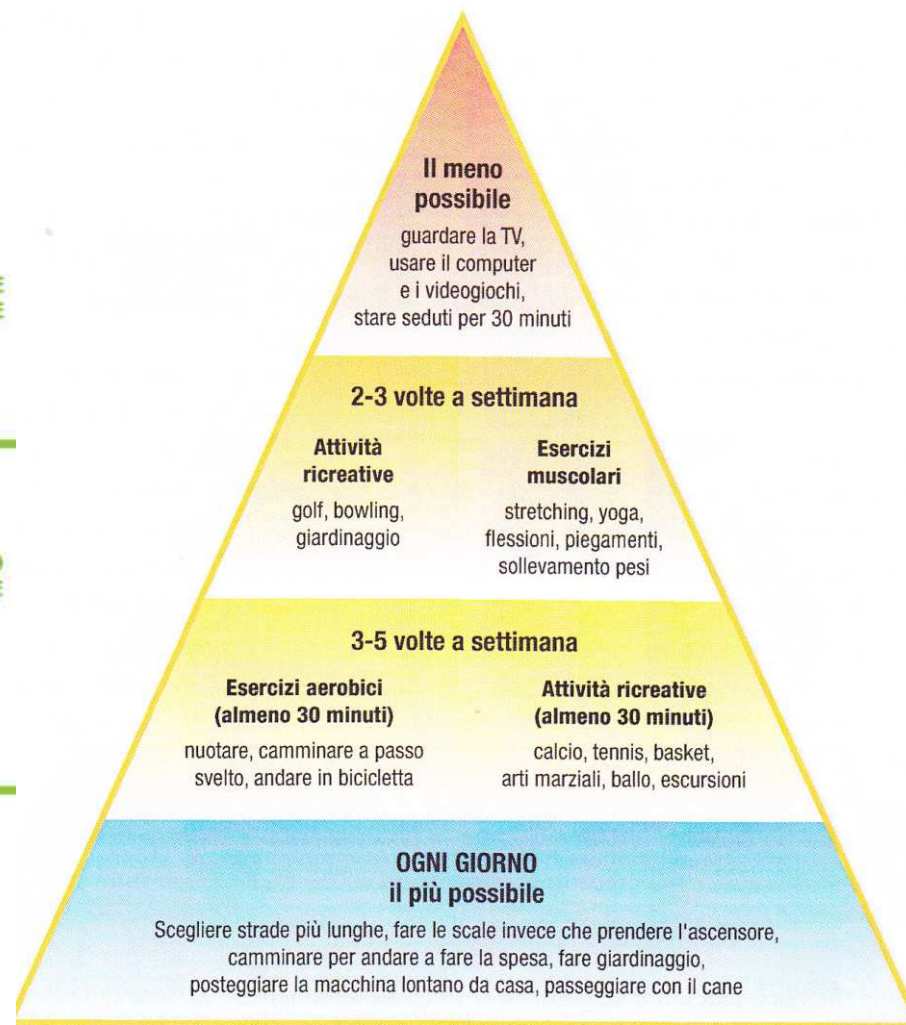
A “good diet” and exercise have been recognized to promote health for hundreds and perhaps thousands of years. Epidemiologic studies in the mid 1900s focused initially on cardiovascular disease. Diets high in saturated animal fats resulted in higher cardiovascular mortality rates than did diets that were based on monounsaturated fats such as olive oil, fish and a variety of fruits and vegetables. Similarly, regular exercise gave protection from cardiac events relative to those with sedentary life styles. Dietary studies with and without concomitant assessment of exercise recently revealed salutary benefits of both exercise and diet on a broad range of clinical phenotypes. These findings inferred that at some early stage(s) of many diseases, common pathophysiologic mechanisms were at work. Insights into underlying cellular mechanisms are leading to a transformation in the way we view chronic diseases.



**L'ALIMENTAZIONE
NELLA PRATICA
MOTORIA
E SPORTIVA**



PIRAMIDE DEL MOVIMENTO



Attività fisica: insieme di movimenti con coinvolgimento dell'apparato muscolo scheletrico in grado di dar luogo ad una spesa energetica.

Esercizio fisico: attività fisica di carattere pianificato, strutturato e finalizzato ad un obiettivo (miglioramento o mantenimento di uno stato di forma e/o di benessere)

Per chiunque svolga un'attività motoria l'alimentazione si differenzia da quella di una persona sedentaria da un punto di vista quantitativo e qualitativo.



OBESITY AND THE DIGESTIVE SYSTEM

Diet and exercise in management of obesity and overweight

Kwong Ming Fock* and Joan Khoo†

Departments of *Gastroenterology and †Endocrinology, Changi General Hospital, Singapore

Exercise and obesity



Physical activity alone is not an effective method for achieving initial weight loss, although most overweight or obese people tend to choose exercise as the first interventional option. Without calorie restriction, weight loss through exercise alone is quite small, about 0.1 kg/week.²⁰ A meta-analysis showed that exercise alone did not result in significant weight loss attempts, although no further weight gain was observed after 12 months.¹⁸ Although exercise is not effective for initial weight loss, physical activity is important for maintaining weight loss achieved through dietary intervention. Meta-analyses of 493 studies have shown that people who diet and exercise maintained their weight loss better than those who relied on diet alone.²¹ Before starting an exercise

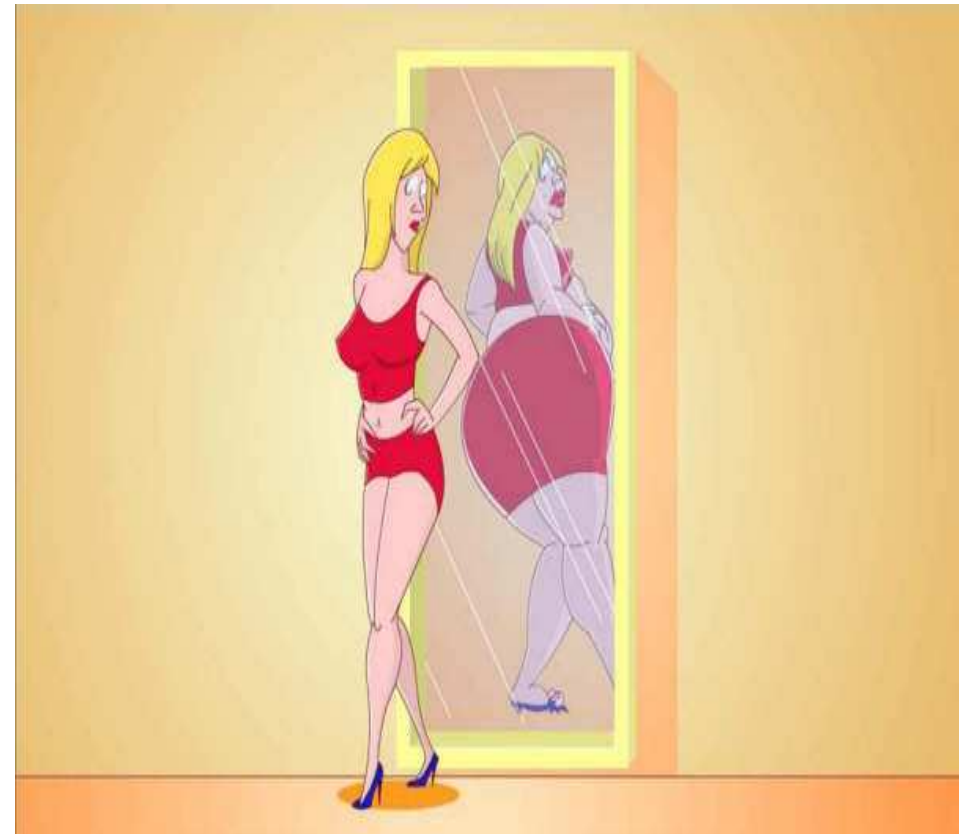
Un' eccessiva quantità di tessuto adiposo in un soggetto sta alla base di condizioni quali: sovrappeso ed obesità.

Naturalmente ciò non si valuta a «percezione» ma esistono dei metodi per tale misura.

Il più semplice è il BMI (Body Mass Index) [Indice di massa corporea]



Cavanna-Molteni



$$\text{B.M.I.} = \frac{\text{Peso}}{[\text{Altezza}]^2}$$

Peso in Kg

Altezza in metri

QUANTO DEVO PESARE?



sottopeso

18,5

normopeso

25

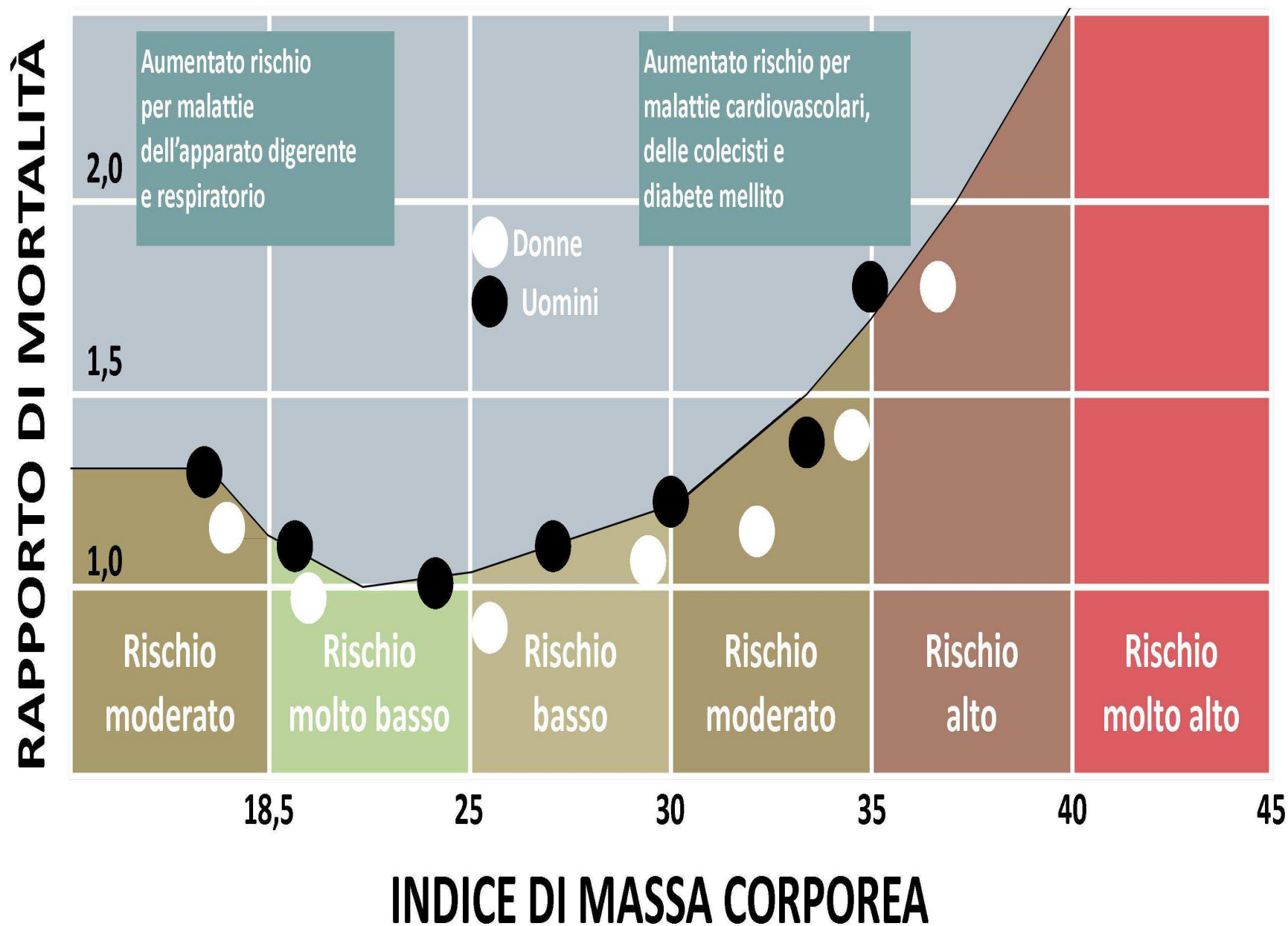


sovrappeso

30



obeso



minore di

94

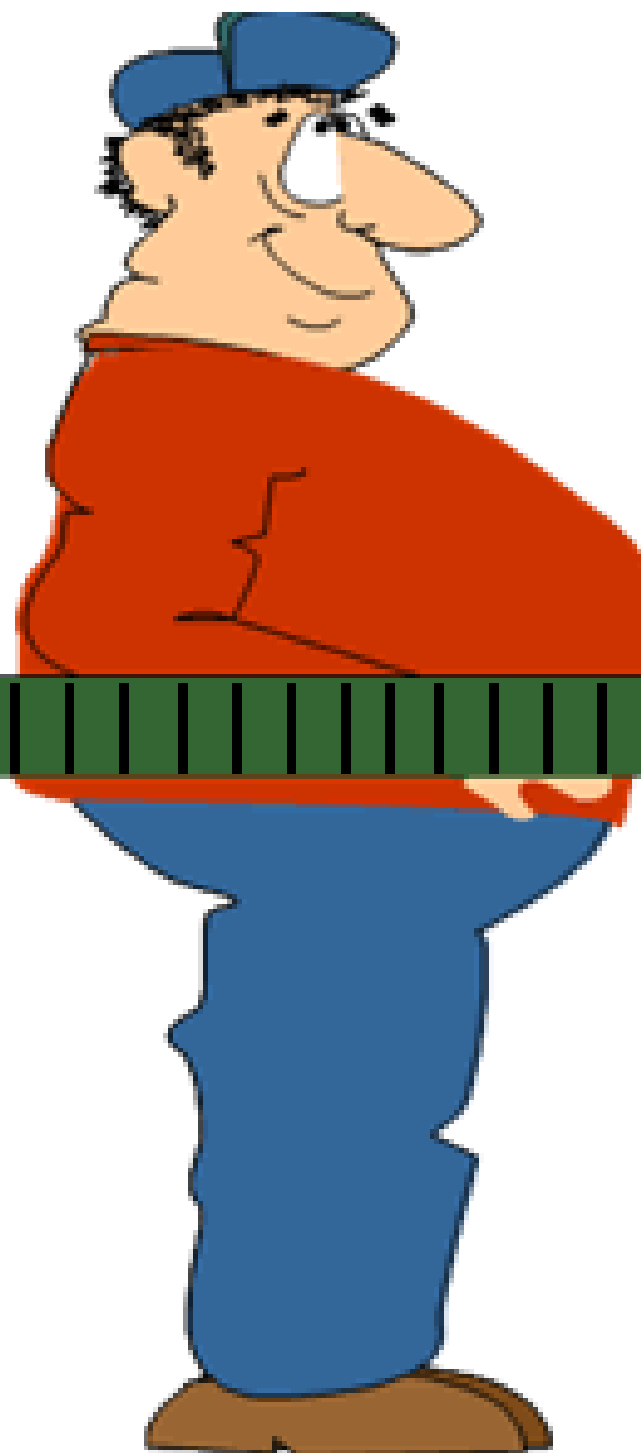
nei maschi



minore di

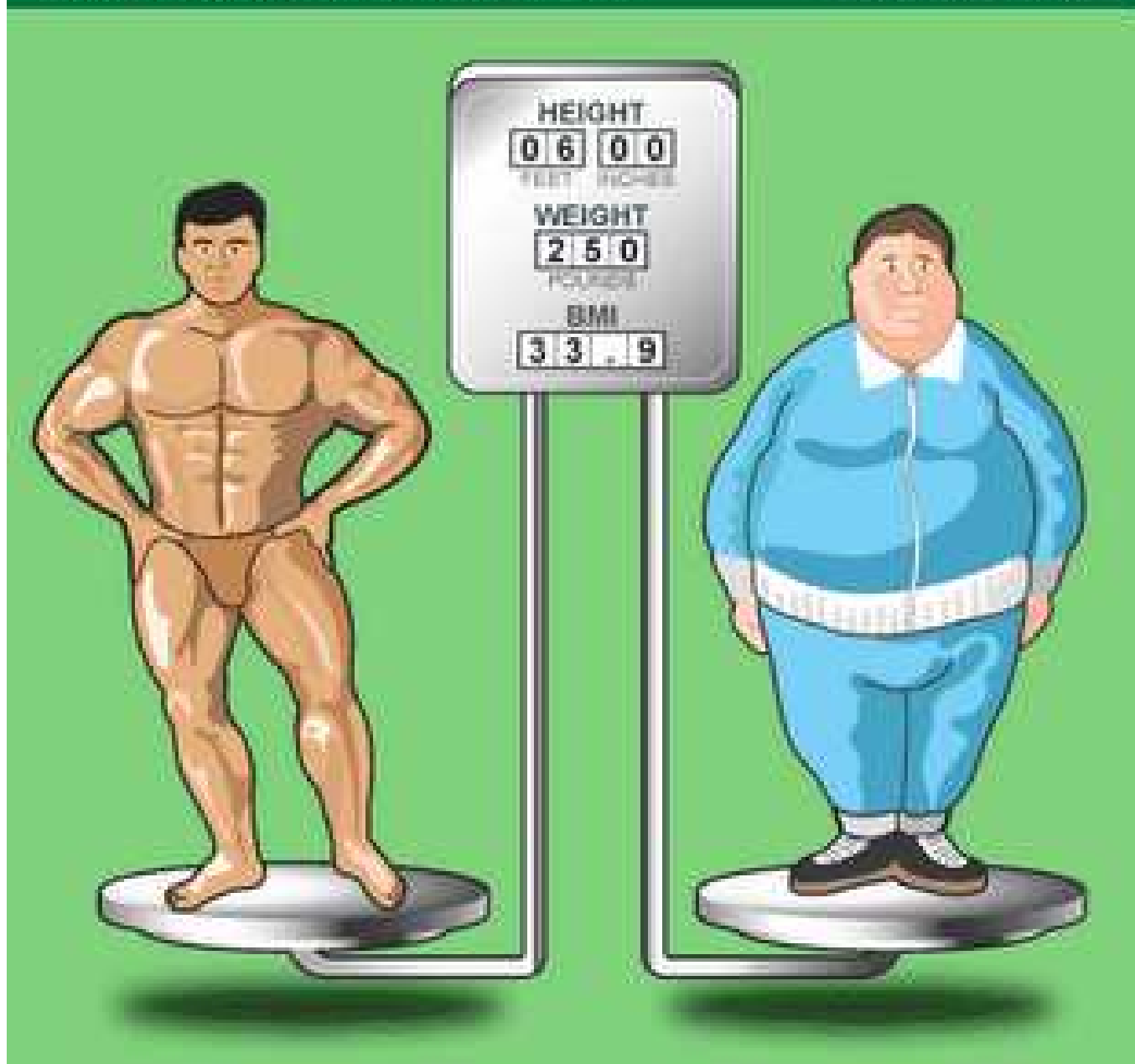
80

nelle femmine



BMI Body Comparison

©2005: HowStuffWorks

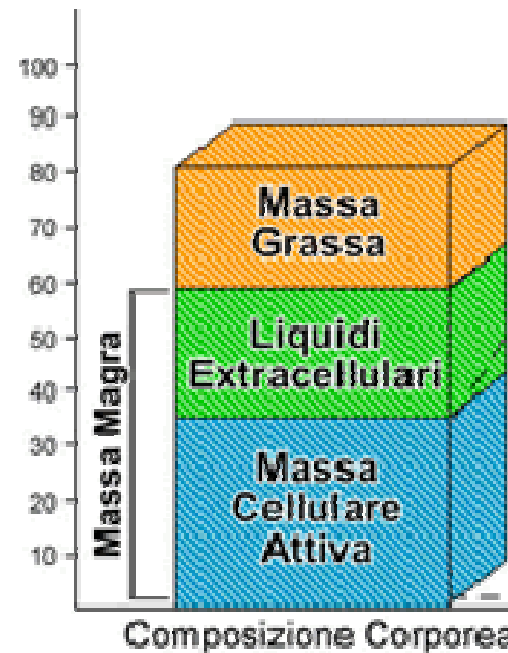
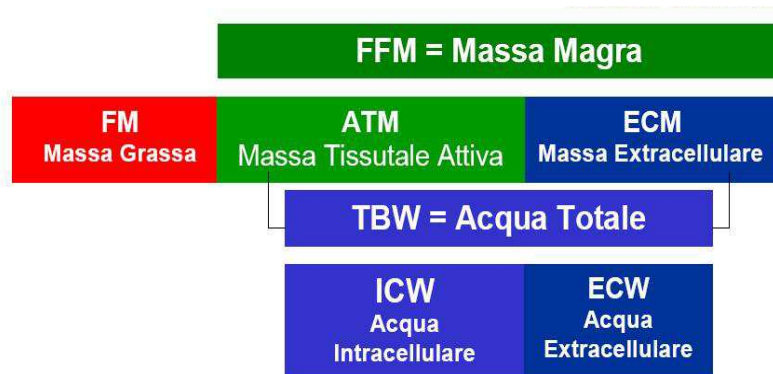




Plicometria



Bioimpedenziometria



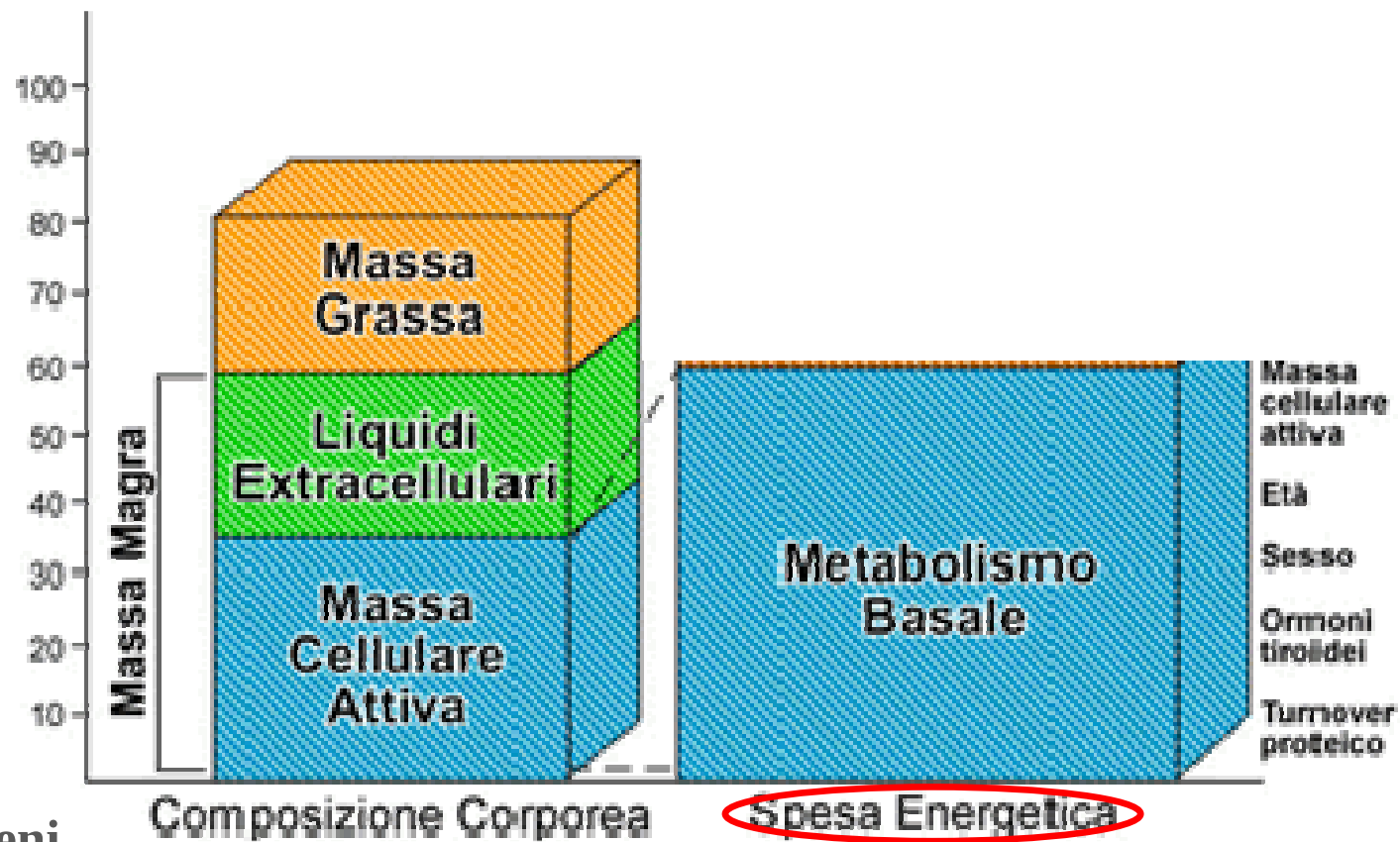


Tabella 2.11 Calcolo del LAF mediante il metodo fattoriale.

Principali attività giornaliere	Tempo dedicato (ore)	TAF*	Tempo × TAF	LAF medio*
Stile di vita sedentario o attività fisica leggera				
Dormire	8	1,0	8,0	
Cure personali (lavarsi, vestirsi)	1	2,3	2,3	
Mangiare	1	1,5	1,5	
Cucinare	1	2,1	2,1	
Stare seduti (lavoro d'ufficio)	8	1,5	12,0	
Cura della casa	1	2,8	2,8	
Guidare	1	2,0	2,0	
Camminare senza pesi	1	3,2	3,2	
Attività ricreative leggere (es. guardare la TV)	2	1,4	2,8	
Totale	24		36,7	36,7 / 24 = 1,53
Stile di vita attivo o moderatamente attivo				
Dormire	8	1,0	8,0	
Cure personali (lavarsi, vestirsi)	1	2,3	2,3	
Mangiare	1	1,5	1,5	
Stare in piedi, sollevare pesi leggeri (cameriere, commessa)	8	2,2	17,6	
Spostarsi con i mezzi pubblici	1	1,2	1,2	
Camminare senza pesi	1	3,2	3,2	
Esercizio aerobico leggero	1	4,2	4,2	
Attività ricreative leggere (es. guardare la TV)	3	1,4	4,2	
Totale	24		42,2	42,2 / 24 = 1,76
Stile di vita molto attivo				
Dormire	8	1,0	8,0	
Cure personali	1	2,3	2,3	
Mangiare	1	1,4	1,4	
Cucinare	1	2,1	2,1	
Lavoro fisicamente pesante (es. agricoltori senza mezzi meccanici)	6	4,1	24,6	
Raccolta di legname o di acqua	1	4,4	4,4	
Lavori domestici (spazzare, lavare i panni a mano)	1	2,3	2,3	
Camminare	1	3,2	3,2	
Attività ricreative miste	4	1,4	5,6	
Totale	24		53,9	53,9 / 24 = 2,25

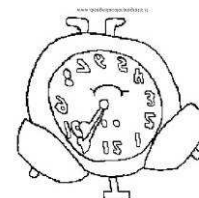
* Espresso come multiplo del metabolismo basale

Da *Human energy requirements*, Report of a Joint FAO/WHO/UNU, Expert Consultation, 2001.



Piano Alimentare:

Quando

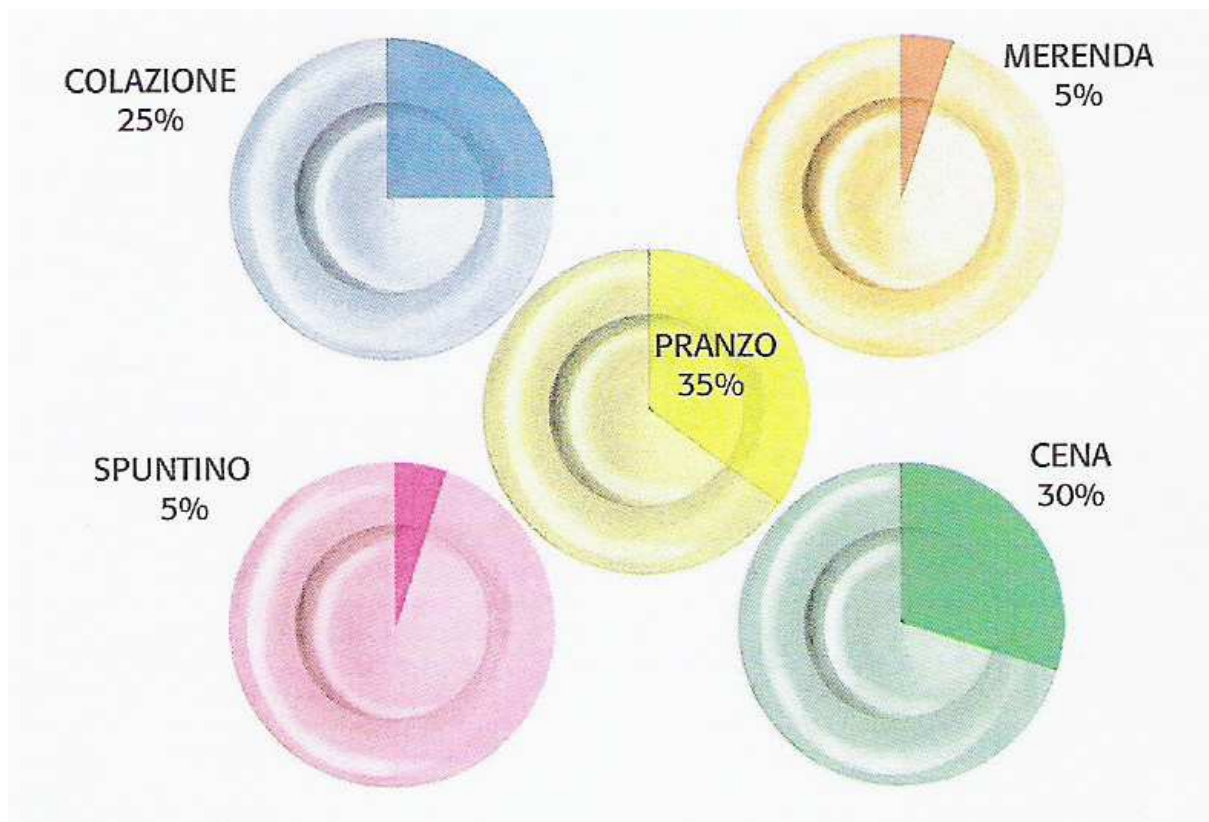


Cosa



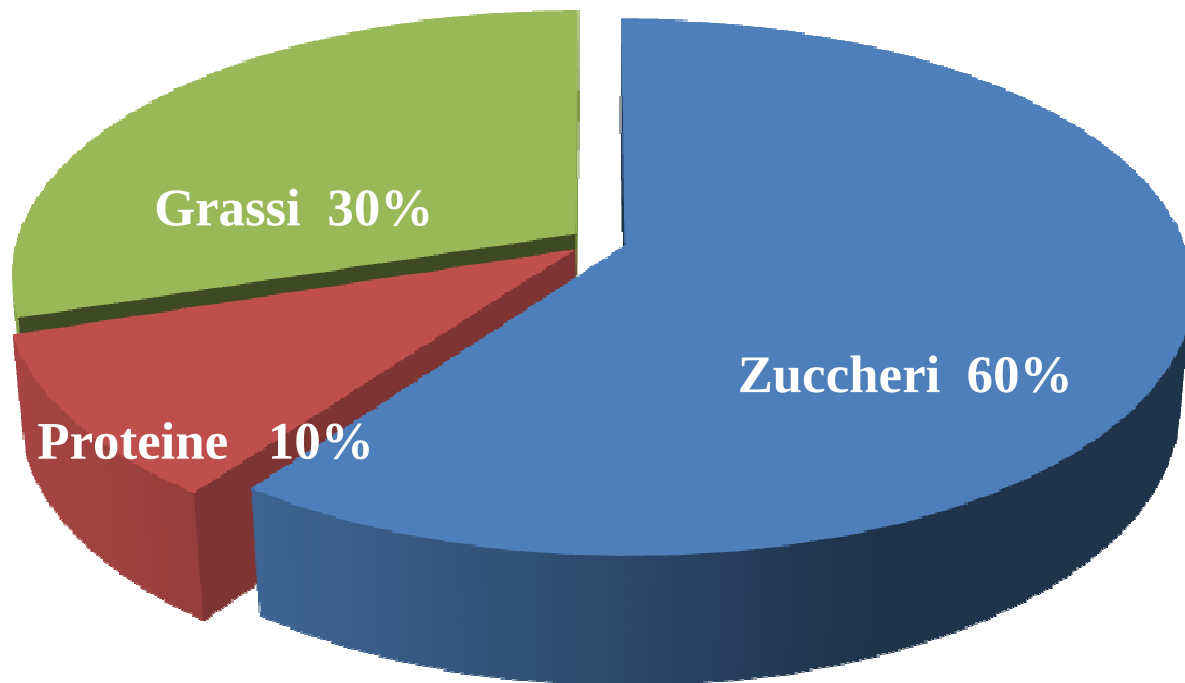
Quanto





da Cappelli Vannucchi PRINCIPI DI SCIENZE DELL'ALIMENTAZIONE (Zanichelli 2008)

Colazione da Re... pranzo da Principe... e cena da povero



Dieta Equilibrata



Colazione:

Latte ,caffè , biscotti secchi o fette biscottate

Spuntino: yogurt o 1 frutto

Pranzo:

primo (pasta o riso), verdura, 1 frutto

Merenda: yogurt o 1 frutto

Cena: secondo (carne, pesce, uova),
verdura, 1 frutto, 1 panino

Physical activity and health

L. Miles

British Nutrition Foundation, High Holborn House, London, UK

Summary

- 1 Introduction
- 2 Definition and measurement of physical activity
 - 2.1 Definition and classification of physical activity
 - 2.2 Measuring physical activity

Key points
- 3 Physical activity levels in the UK
 - 3.1 Physical activity levels in UK adults
 - 3.2 Physical activity levels in UK children and adolescents

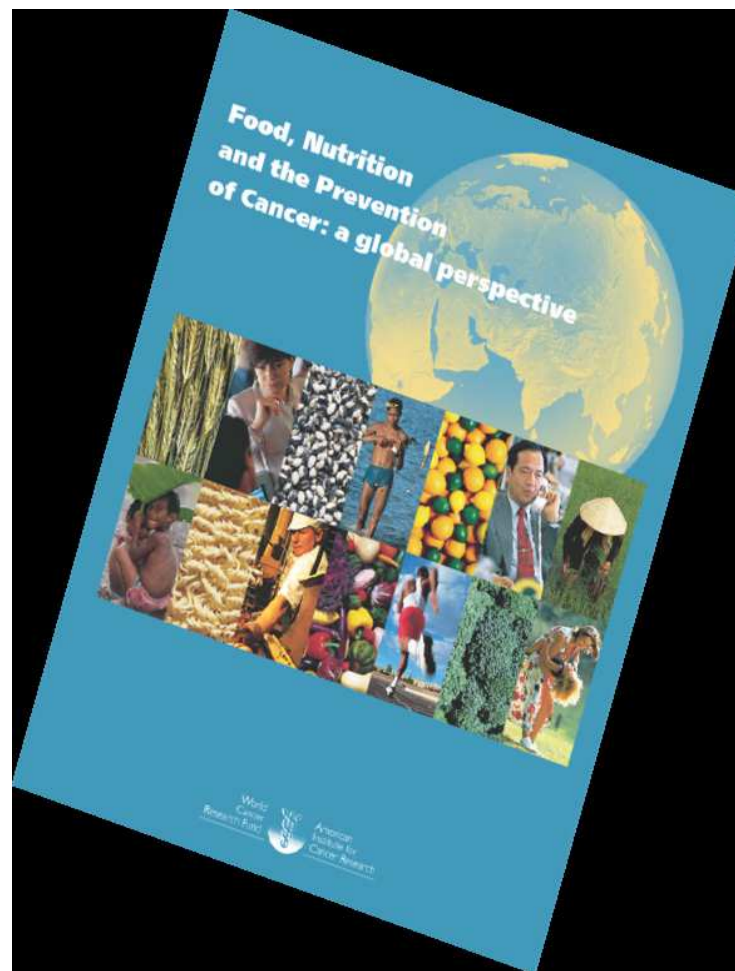
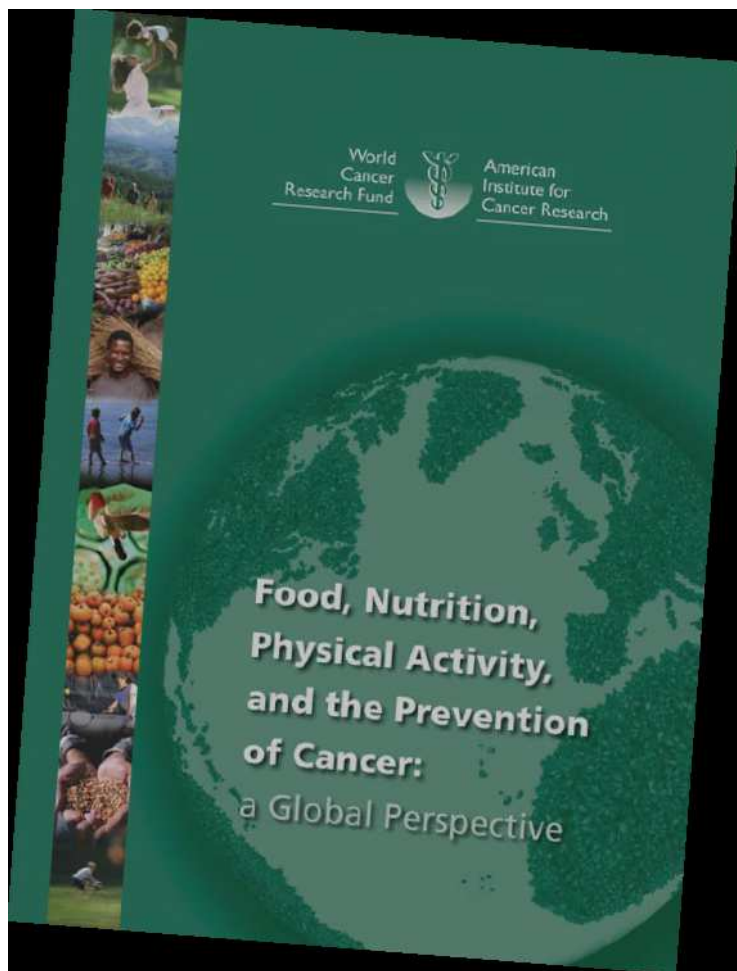
Key points
- 4 Physiological effects of physical activity
 - 4.1 Energy balance
 - 4.2 Body composition
 - 4.3 Interaction with food intake
 - 4.4 Cardiovascular effects
 - 4.5 Lipid profile and cholesterol
 - 4.6 Insulin sensitivity
 - 4.7 Immune response
 - 4.8 Neurological and psychological effects

Key points
- 5 Physical activity in health and disease
 - 5.1 Physical activity, weight gain and obesity
 - 5.2 Physical activity and type 2 diabetes risk
 - 5.3 Physical activity and cardiovascular disease risk
 - 5.4 Physical activity and cancer risk
 - 5.5 Physical activity, bone health and osteoporosis risk
 - 5.6 Physical activity, psychological wellbeing and mental health

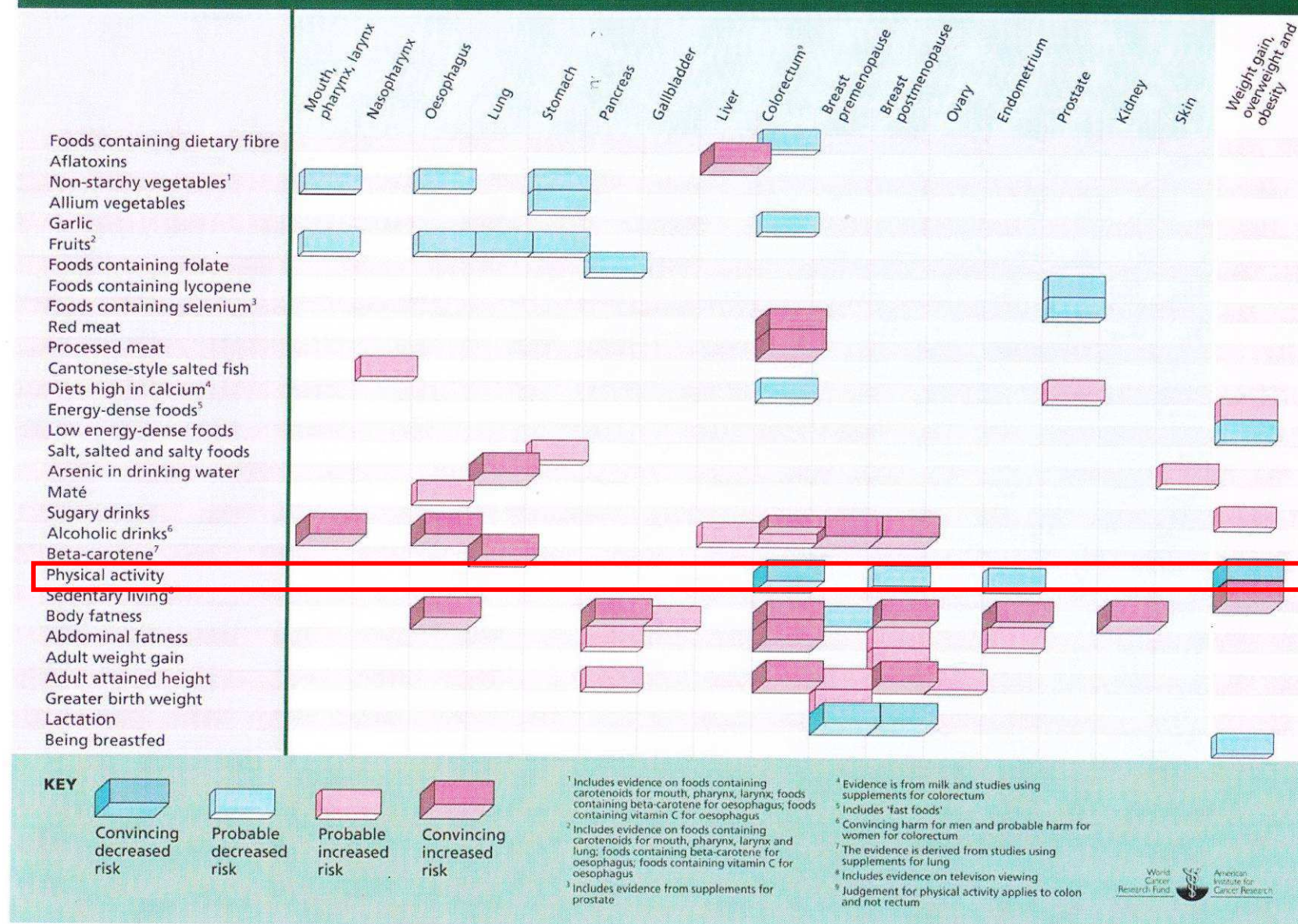
Key points
- 6 Physical activity and public health
 - 6.1 Physical activity across the life course
 - 6.2 Current recommendations on physical activity
 - 6.3 Psychological barriers to physical activity
 - 6.4 Environmental determinants of physical activity
 - 6.5 Effectiveness of interventions to promote physical activity
 - 6.6 Risks associated with physical activity

Key points
- 7 Conclusions

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Summary of 'convincing' and 'probable' judgements





Organizzazione Mondiale della Sanità

World Health Assembly Resolution on NCD Prevention and Control (2008)

In May 2008, the sixty-first World Health Assembly adopted the resolution WHA 61.8 endorsing the action plan on the prevention and control of noncommunicable diseases (10). The action plan, urges members states to:

- develop and implement a comprehensive policy and plan for the prevention and control of major NCDs, and for the reduction of modifiable risk factors;
- promote interventions to reduce the principal shared modifiable risk factors for NCDs: tobacco use, unhealthy diets, physical inactivity and harmful use of alcohol;
- monitor NCDs and their determinants and evaluate progress at national, regional and global levels;
- strengthen surveillance systems and standardized data collection on risk factors, disease incidence and mortality by cause, using existing WHO tools; contribute, on a routine basis, data and information on trends with respect to NCDs and their risk factors disaggregated by age, gender, and socioeconomic groups; and provide information on progress made in the implementation of national strategies and plans;
- implement the actions recommended in the WHO Global Strategy on Diet, Physical Activity and Health.



La Sindrome Metabolica:

attività fisica vera terapia

La prescrizione di una corretta ed efficace attività fisica deve rispettare i medesimi criteri di una vera e propria prescrizione farmacologica:

- **Tipo**
- **Dosaggio**
- **Durata**
- **Frequenza**