

L'activité physique est-elle bénéfique pour le cœur ?

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FACULTÉ
de
MÉDECINE
Montpellier - Nîmes





PACQUIAO - MAYWEATHER
FINALLY!
MAY 2, 2015 - MGM GRAND, LAS VEGAS

Activité Physique : Définition OMS

Tout mouvement corporel produit par des muscles squelettiques entraînant une dépense énergétique supérieure à celle du repos

Déplacements



Activité professionnelle

Tâches domestiques



Activités sportives



Activité Physique et système CV : Historique

Since there was no indication that the greater incidence and severity of coronary heart-disease in the physically less active workers was associated particularly with mental factors in their work, and for other reasons, no alternative hypotheses were framed for the present in psychological terms, and the observations were confined as far as possible to the dimension of physical activity and inactivity of work. The hypothesis, thus, is not advanced in any exclusive sense: it was necessary, however, to try to isolate it if any progress was to be made.

Methods Adopted in Testing the Hypothesis

In this type of research, dealing as it often must with material impossible to "control," of less accuracy than might be wished, and from which it is difficult to isolate



ES

[NOV. 28, 1953]

MODE OF CORONARY HEART-DISEASE : DRIVERS AND CONDUCTORS OF LONDON TRANSPORT EXECUTIVE, 1949-52

TABLE VII(B)
1949-52

Conductors

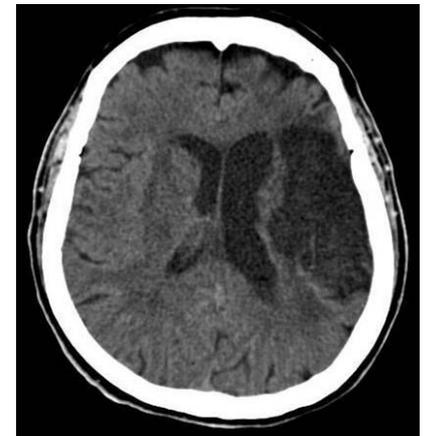
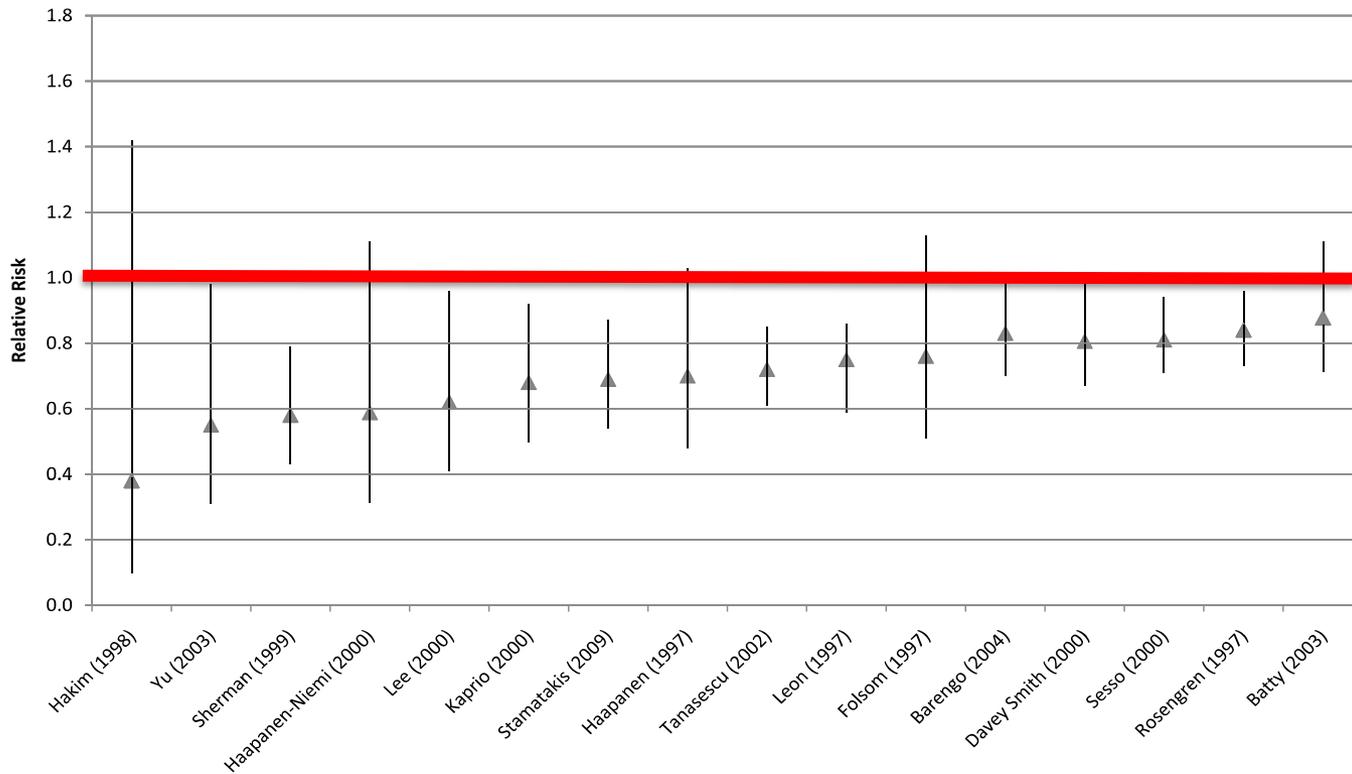
Rate per 1000 p.a.	Ages (years)	Man-years observed	Immediate mortality (first 3 days)	Mortality at 4 days to 3 months	Early mortality (first 3 months)	
					No. of deaths	Rate per 1000 p.a.
0.4	35-44	13,510	2	..
1.2	45-54	7606	0.5	..	4	0.5
3.8	55-64	5300	1.1	1.1	12	2.3
	Total no. of deaths		12	6	18	
1.5	Standardised rate at ages 35-64 incl.		0.5	0.3		0.8

and iv.

conductors both in immediate mortality and early mortality

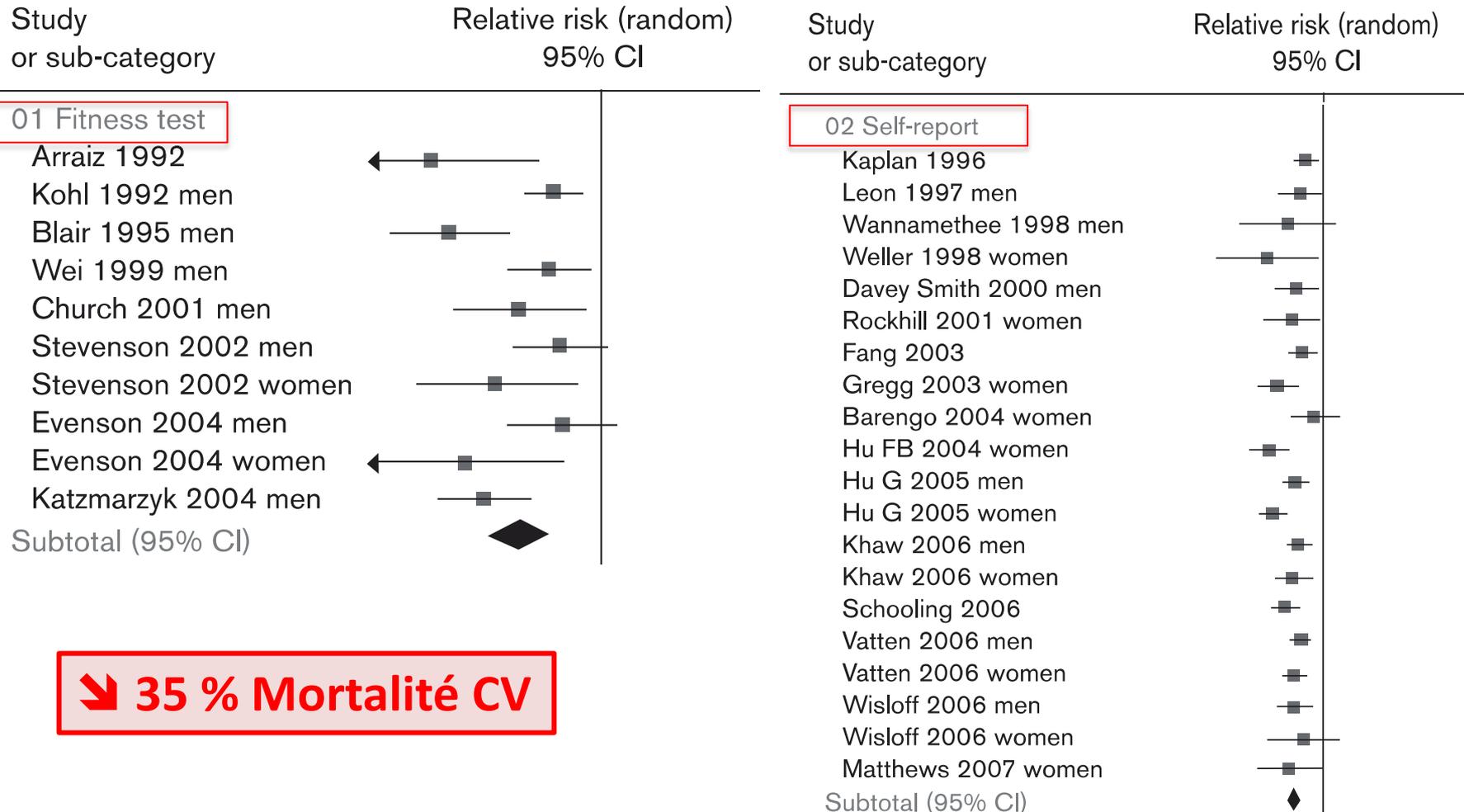
Activité physique et morbidimortalité CV

Relative risks of CVD comparing most active with least active men



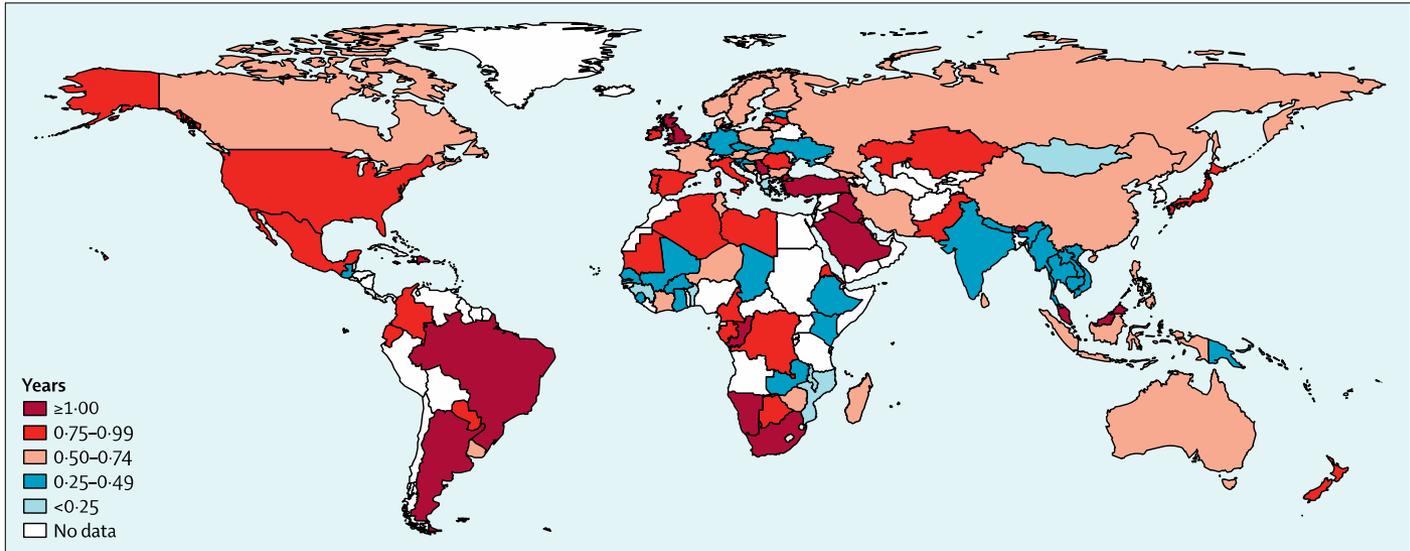
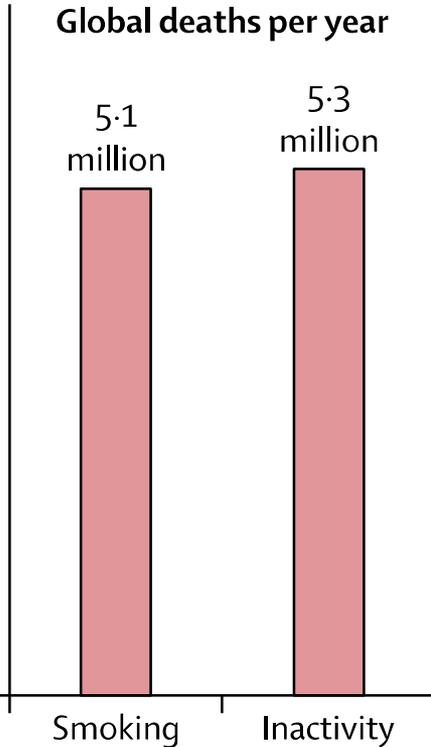
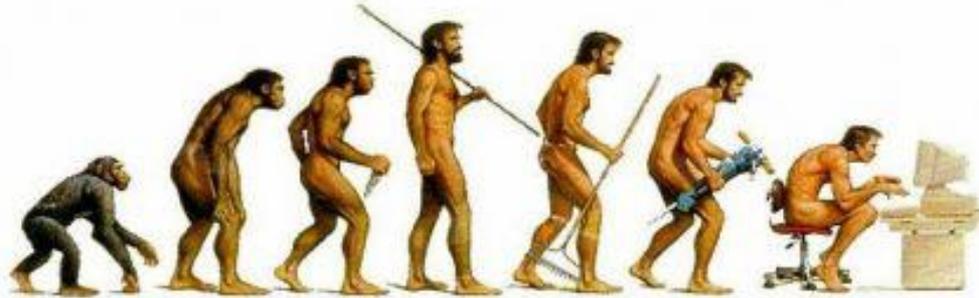
Activité physique et mortalité CV

Relative risks of CV mortality in physically active versus physically inactive participants



↘ **35 % Mortalité CV**

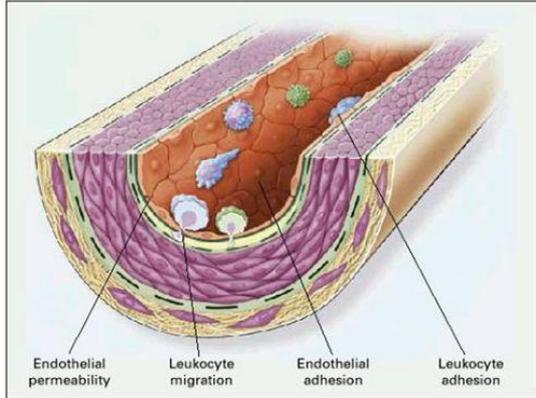
Inactivité physique = FDRCV majeur



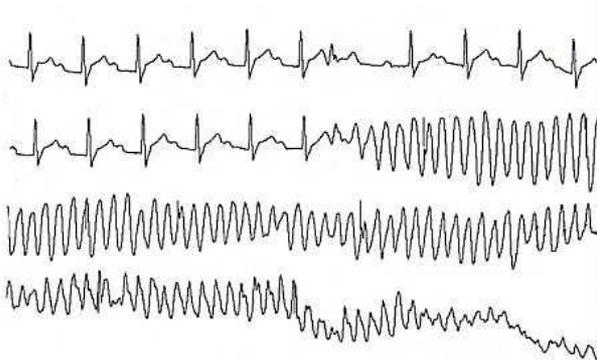
Estimated gains in life expectancy worldwide with elimination of physical inactivity

Physiologie de l'activité physique

Coronaires - Vaisseaux



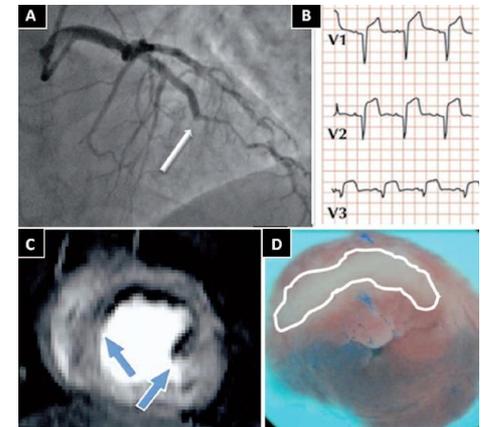
SNA



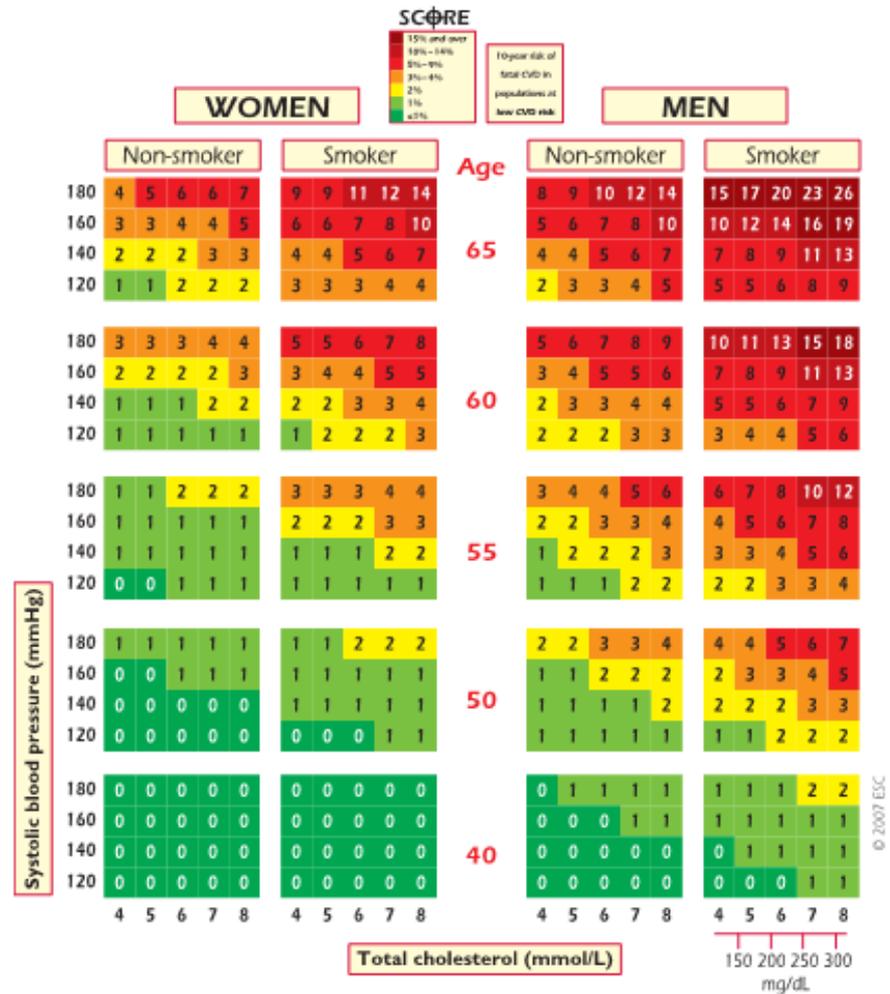
Hémostase



Pré-Cond. ?



Activité physique : prévention des FDRCV



Activité physique et profil tensionnel



**AMERICAN COLLEGE
of SPORTS MEDICINE®**

POSITION STAND

Exercise and Hypertension

This pronouncement was written for the American College of Sports Medicine by Linda S. Pescatello, Ph.D., FACSM, (Co-Chair), Barry A. Franklin, Ph.D., FACSM, (Co-Chair), Robert Fagard, M.D., Ph.D., FACSM, William B. Farquhar, Ph.D., George A. Kelley, D.A., FACSM, and Chester A. Ray, Ph.D., FACSM

Activité Physique → **TA**

Dynamiques > Statiques

HTA > NTA

Genre : Sexe/Ethnie/Age



Activité physique et profil métabolique

**Effects of Exercise on Glycemic Control and
Body Mass in Type 2 Diabetes Mellitus**

A Meta-analysis of Controlled Clinical Trials

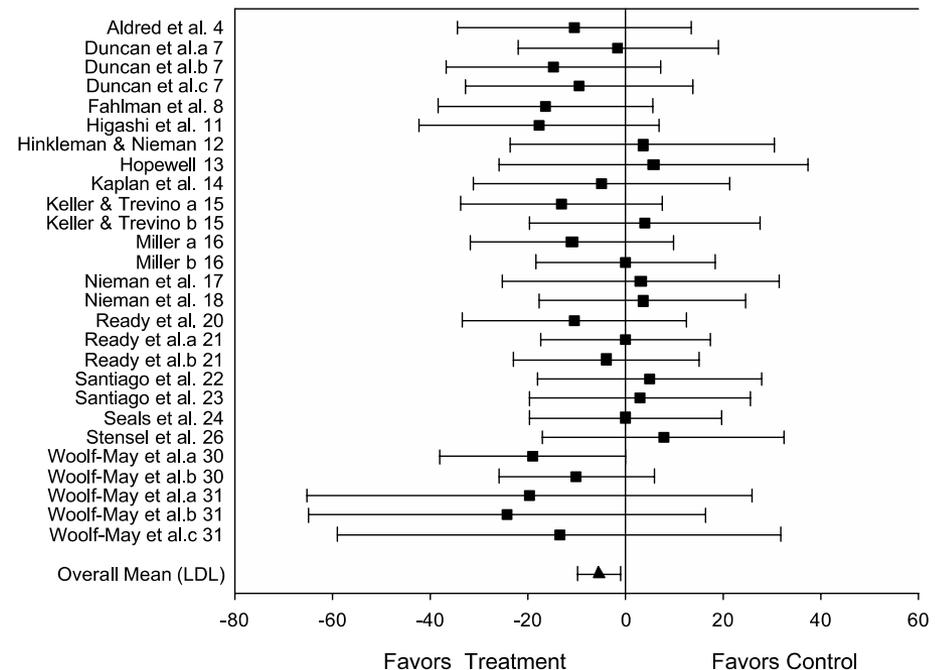
Activité Physique  **↘ HbA1c**



Activité physique et profil lipidique

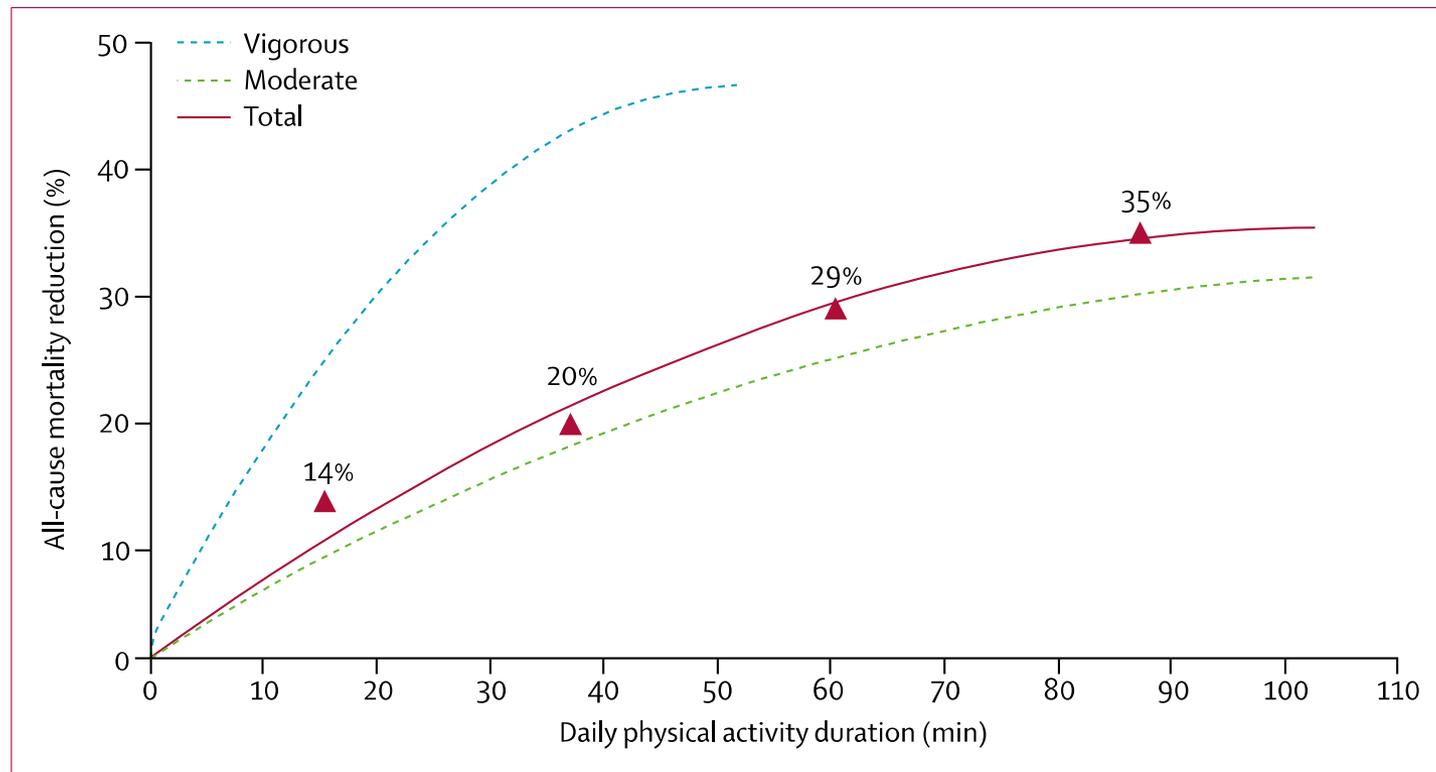
Walking, lipids, and lipoproteins: a meta-analysis of randomized controlled trials

Activité Physique → LDL ?



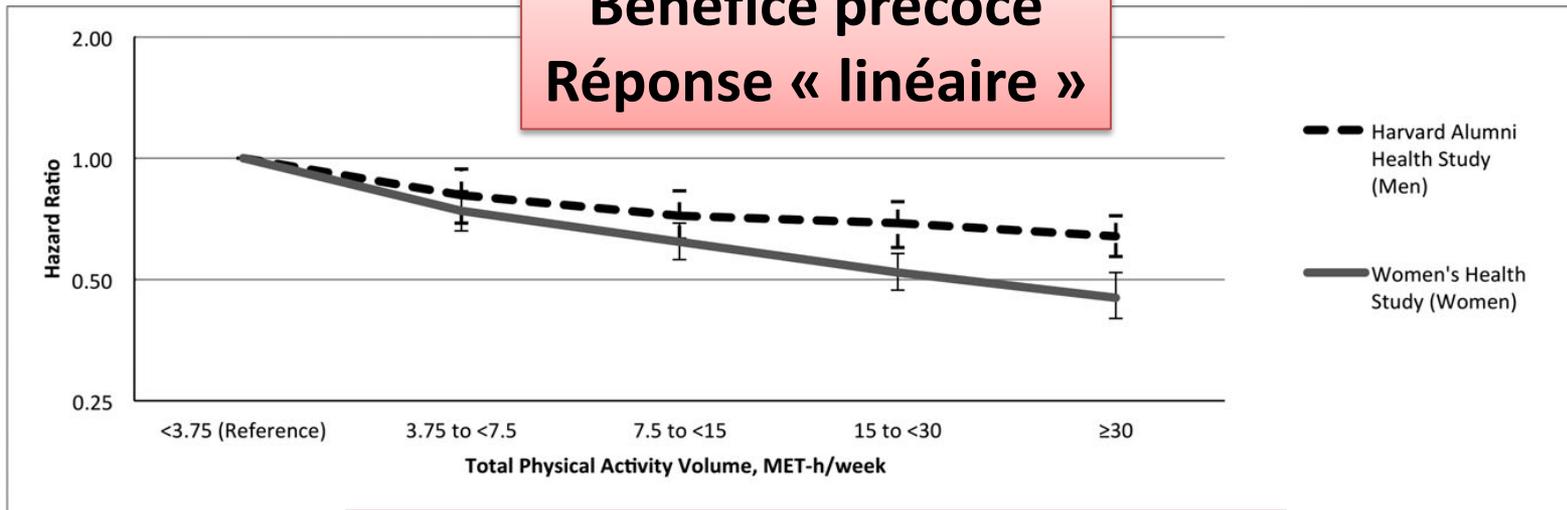
Activité physique : Volume et Intensité ?

Bénéfice précoce
Relation « curviligne »
Hautes intensités + bénéfiques

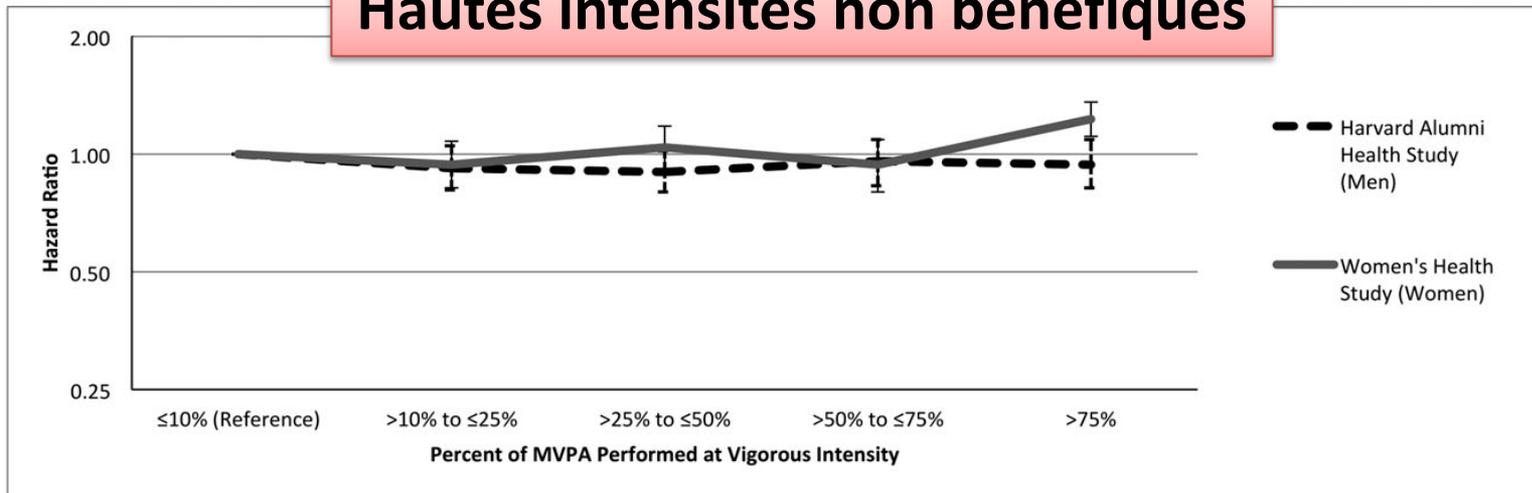


Activité physique : Volume et Intensité ?

**Bénéfice précoce
Réponse « linéaire »**

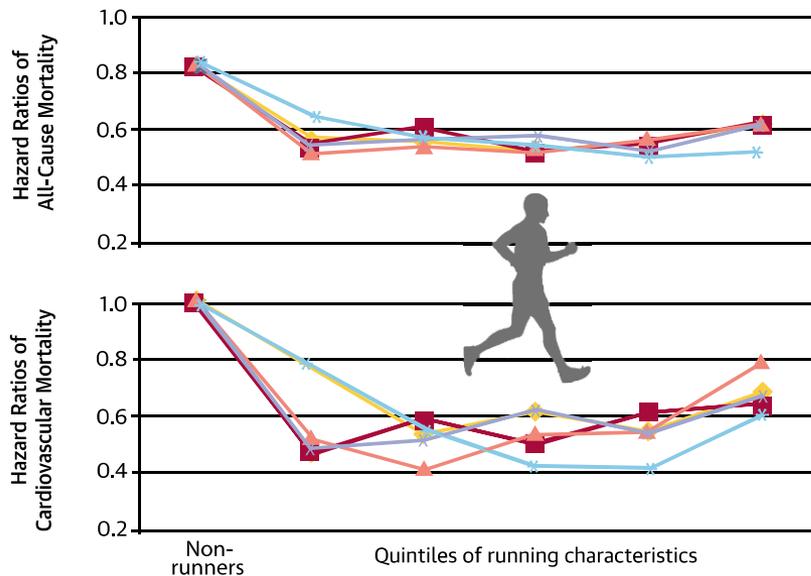


Hautes intensités non bénéfiques

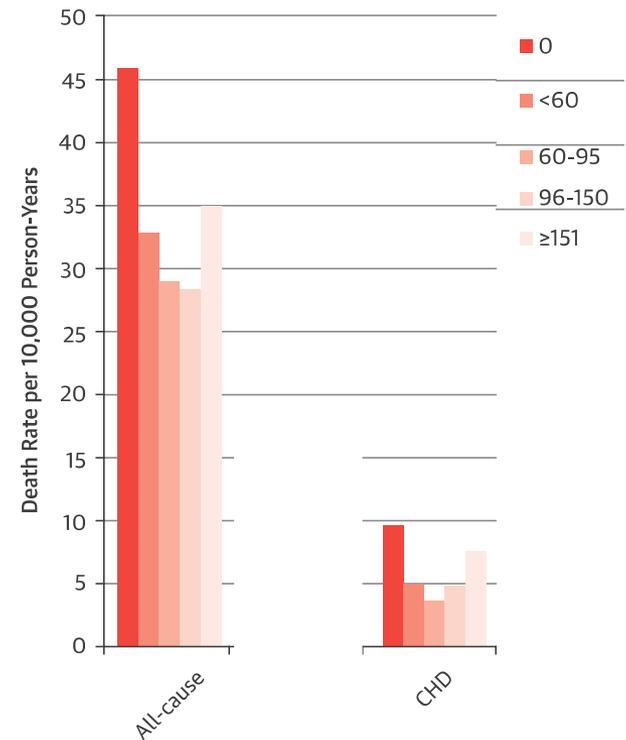


Activité physique : Volume et Intensité ?

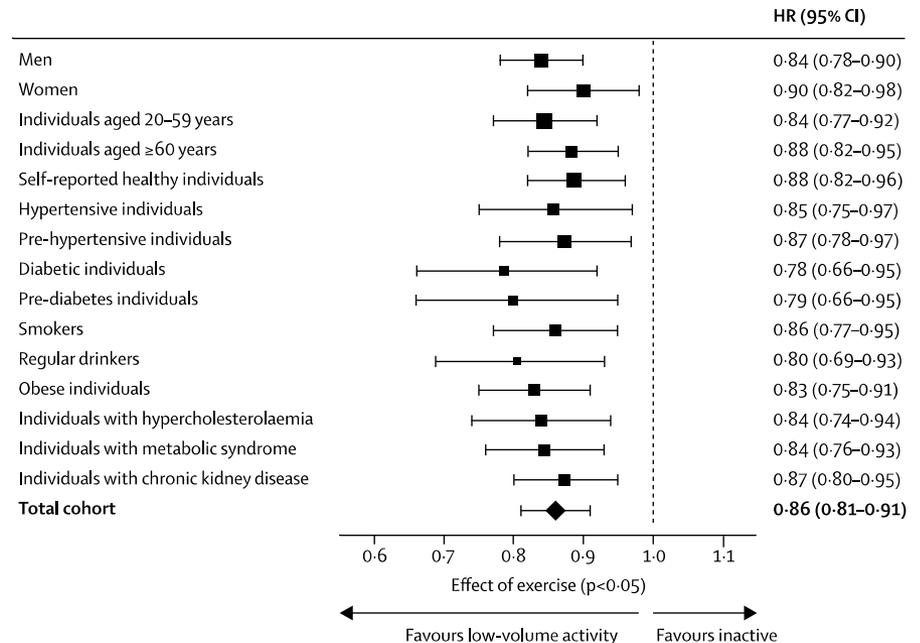
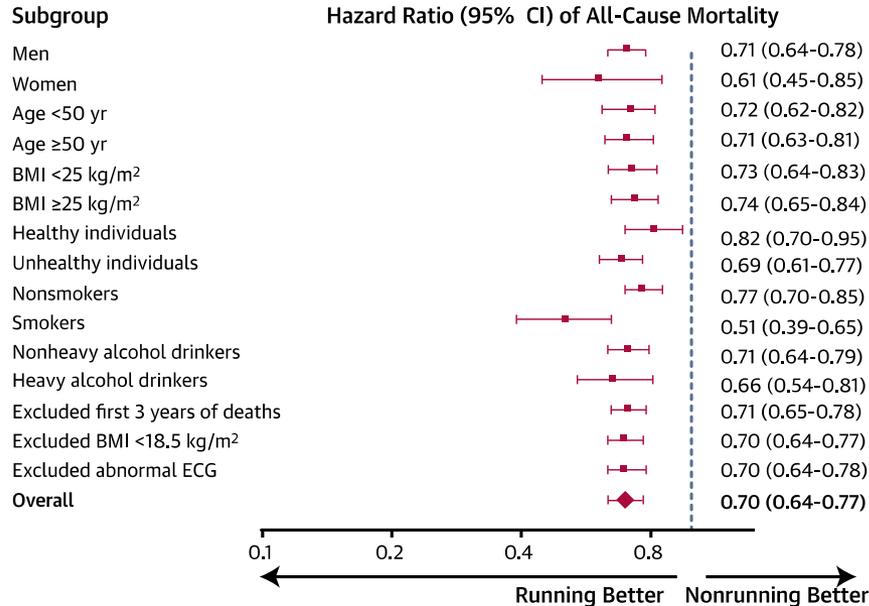
Bénéfice précoce identique
Réponse en « U » ?



◆	Time (min/wk)	0	<51	51-80	81-119	120-175	≥176
■	Distance (miles/wk)	0	<6	6-8	9-12	13-19	≥20
▲	Frequency (times/wk)	0	1-2	3	4	5	≥6
✱	Total amount (MET-min/wk)	0	<506	506-812	813-1199	1200-1839	≥1840
✱	Speed (mph)	0	<6.0	6.0-6.6	6.7-7.0	7.1-7.5	≥7.6



Activité physique : Qui en bénéficie ?

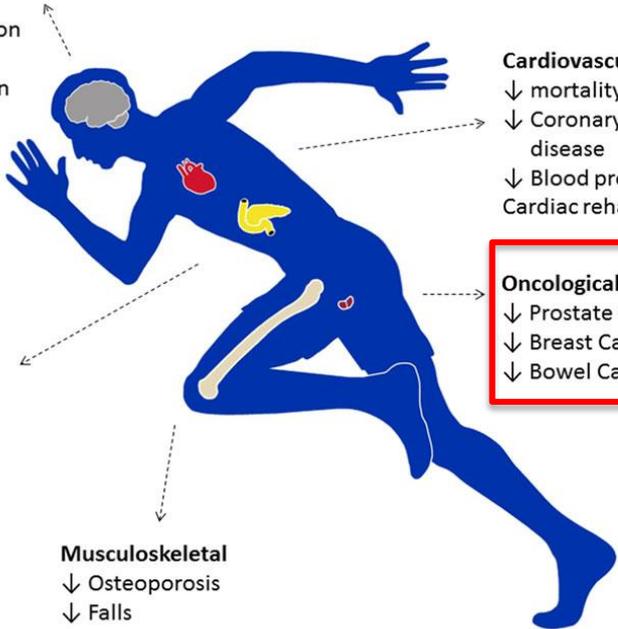


Activité physique : Recommandations

Recommendations	Class ^a	Level ^b	GRADE
Healthy adults of all ages should spend 2.5–5 h a week on physical activity or aerobic exercise training of at least moderate intensity, or 1–2.5 h a week on vigorous intense exercise. Sedentary subjects should be strongly encouraged to start light-intensity exercise programmes.	I	A	Strong
Physical activity/aerobic exercise training should be performed in multiple bouts each lasting ≥ 10 min and evenly spread throughout the week, i.e. on 4–5 days a week.	Ila	A	Strong

Activité physique : autres bénéfices

Neurological
 ↓ Anxiety/depression
 ↓ Dementia
 ↑ Cognitive function
 ↓ Risk of Stoke

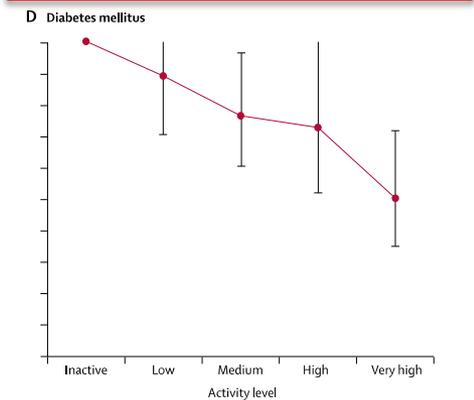
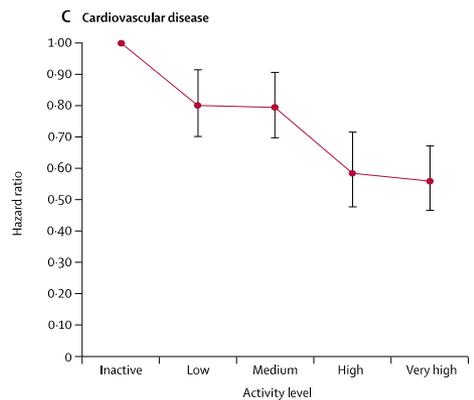
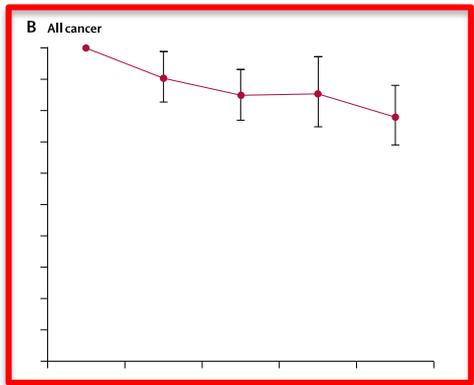
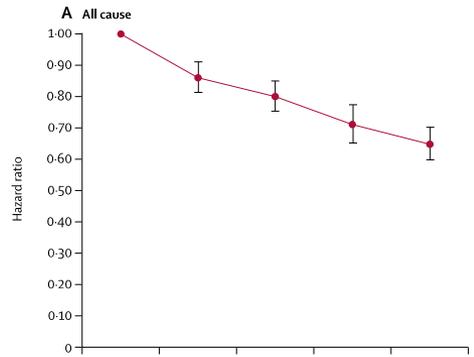


Cardiovascular
 ↓ mortality
 ↓ Coronary artery disease
 ↓ Blood pressure
 Cardiac rehab

Oncological
 ↓ Prostate Cancer
 ↓ Breast Cancer
 ↓ Bowel Cancer

Endocrine
 ↓ Weight
 ↓ Diabetes
 ↓ LDL
 ↑ HDL

Musculoskeletal
 ↓ Osteoporosis
 ↓ Falls
 ↓ Disability



Activité physique : le « traitement » idéal



Those who think they have not time for bodily exercise will sooner or later have to find time for illness.

—Edward Stanley, Earl of Derby, in an address
at Liverpool College, 20 December 1873