



Exercise Is Medicine

Merging Fitness with Healthcare

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Chairman
Exercise Is Medicine
Advisory Board

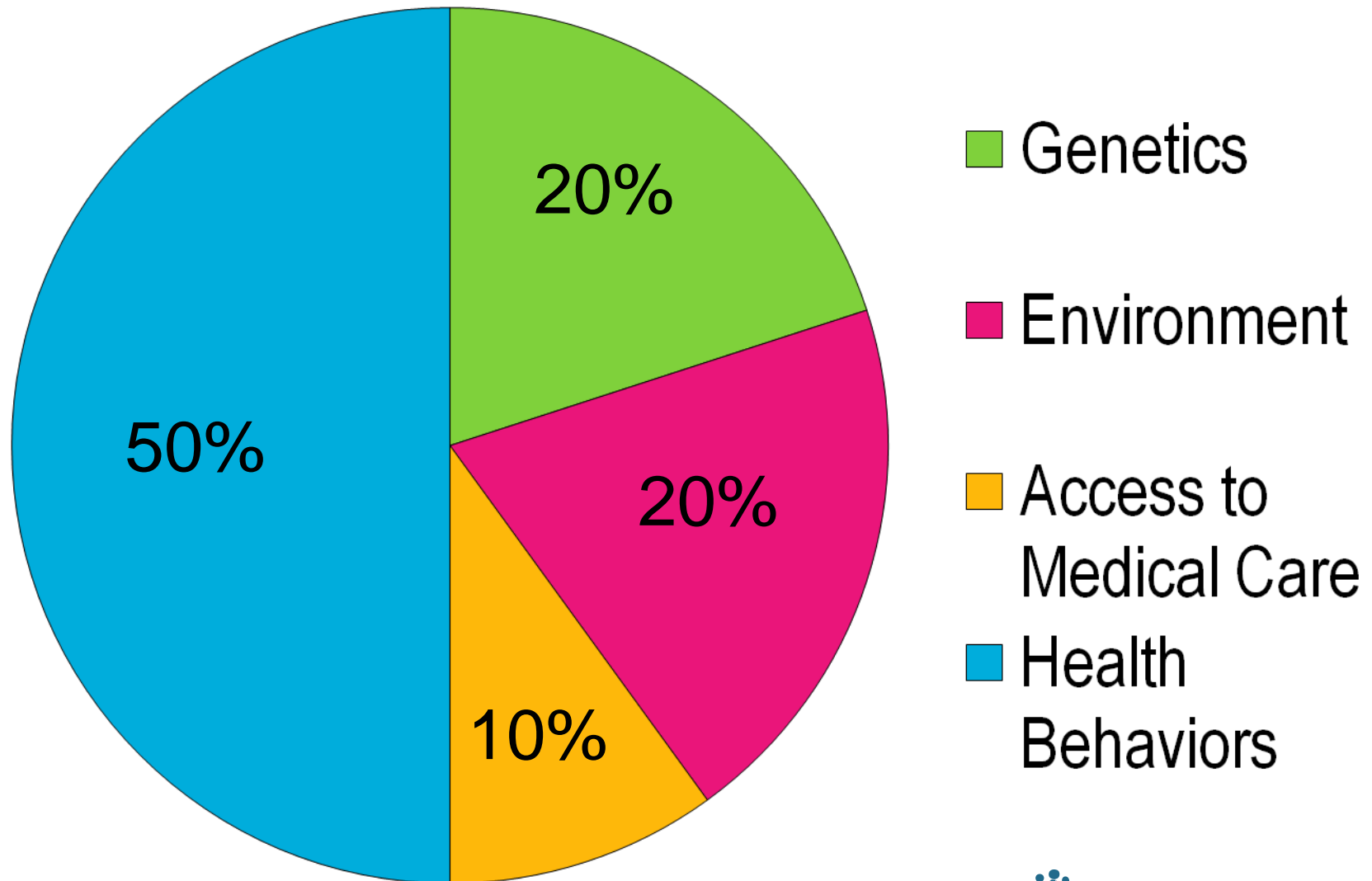
Clinical Professor
Family Medicine
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School of Medicine

Every Body **WALK!**
The Campaign to Get America Walking

Exercise
is Medicine

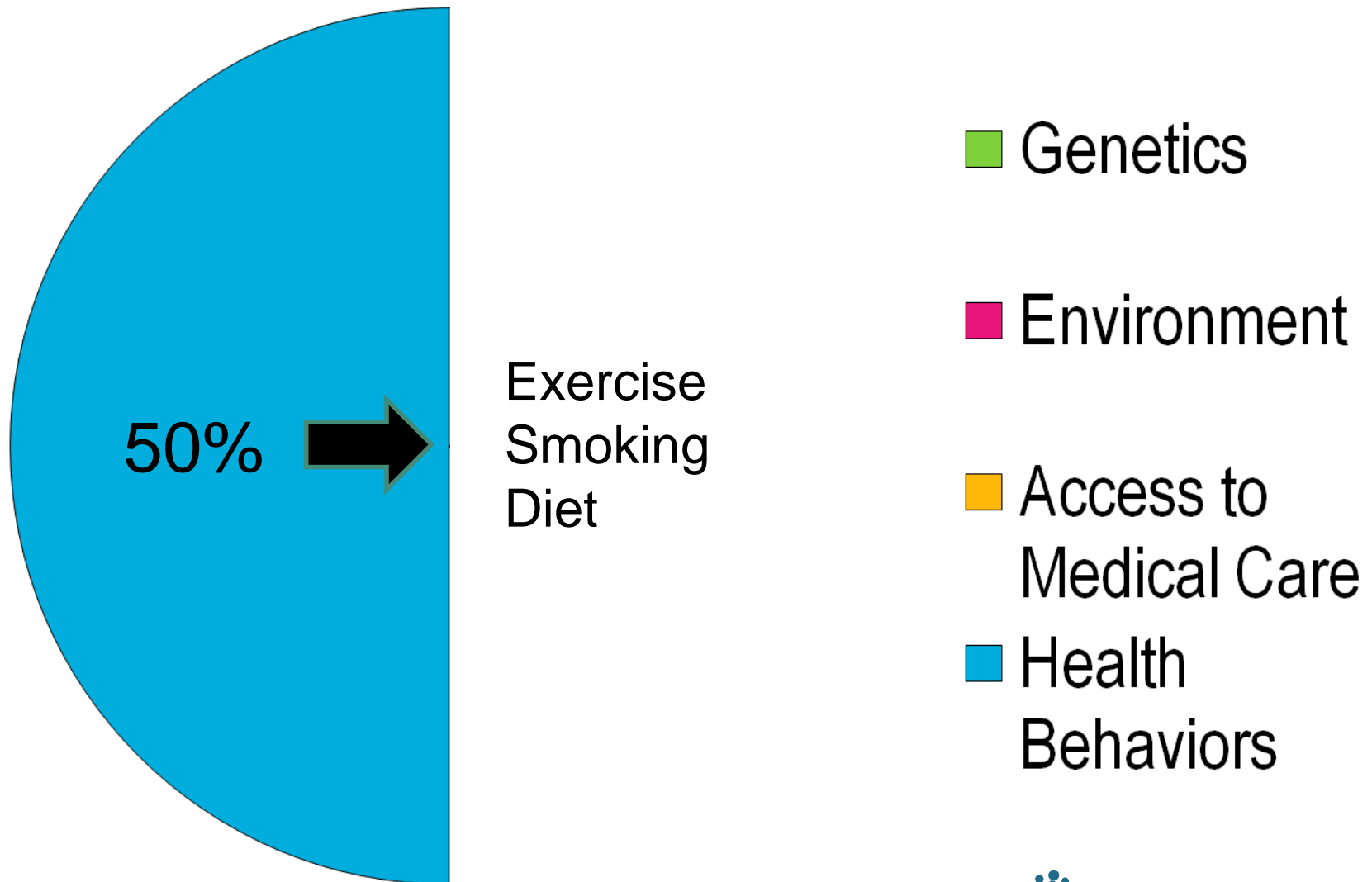
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Contributors to Overall Health Status; The Power of Health Behaviors



Source: CDC 2000

Contributors to Overall Health Status; The Power of Health Behaviors



Source: CDC 2000

Exercise and Health

- Physical inactivity has an astonishing array of harmful health effects.
- Exercise is a powerful tool for both the treatment and prevention of chronic disease and obesity, as well as premature death.
 - There is a linear relationship between physical activity and health status.
 - The association between disease and an inactive and unfit way of life persists in every subgroup of the population.
- Physical inactivity is THE major public health problem of our time.

THE LANCET

“In view of the prevalence, global reach and health effect of physical inactivity, the issue should be appropriately described as *Pandemic*, with far-reaching health, economic, environmental and social consequences.”

“In view of the prevalence, global reach, and health effect of physical inactivity, the issue should be appropriately described as pandemic, with far-reaching health, economic, environmental, and social consequences.”

Physical Activity

Boris Lushniak, MD, MPH

Acting United States Surgeon General



U.S. Department of Health & Human Services



Office of the Surgeon General

ACSM Annual Meeting
Orlando, Florida; May 30, 2014



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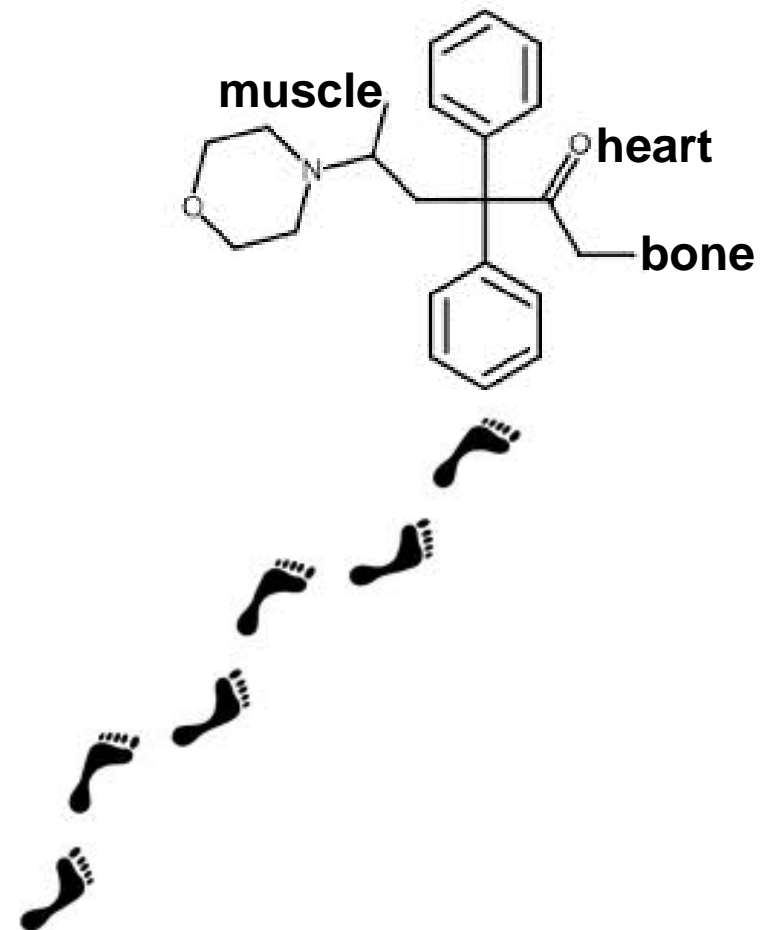
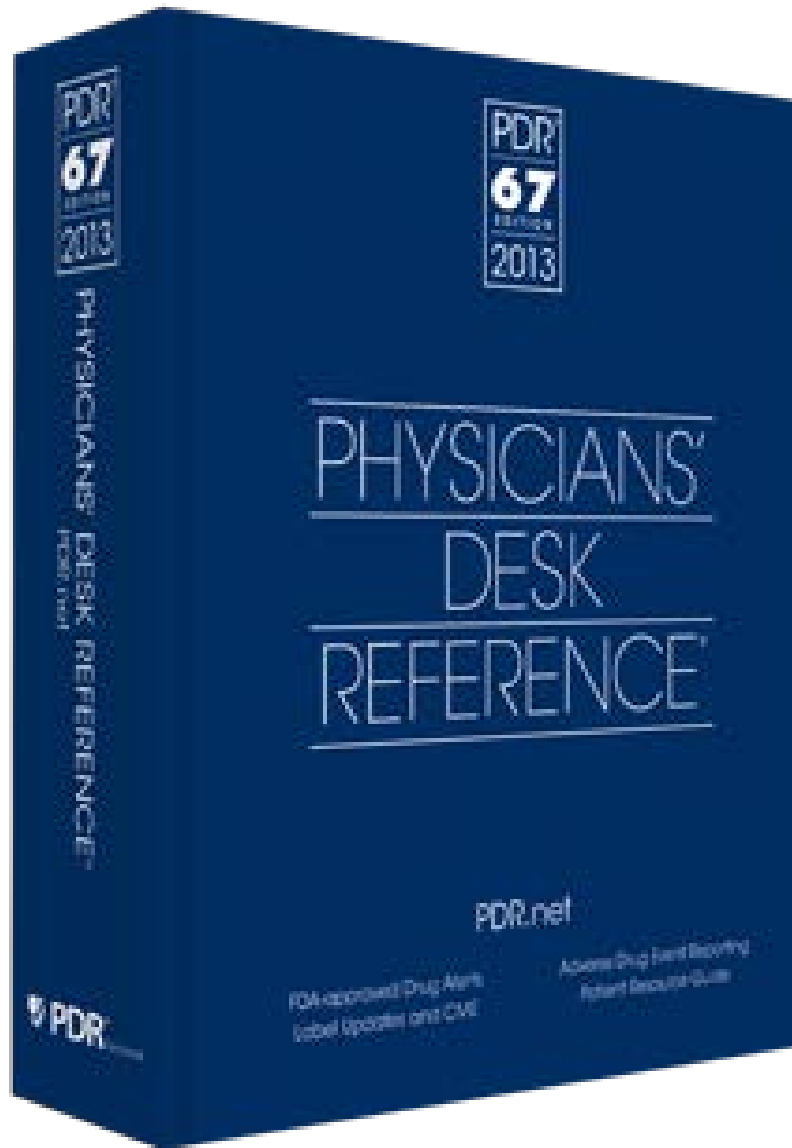
Tom Frieden, MD, MPH

Director; Centers for Disease Control and Prevention

CDC Vital Signs
Telebriefing
August 6, 2013

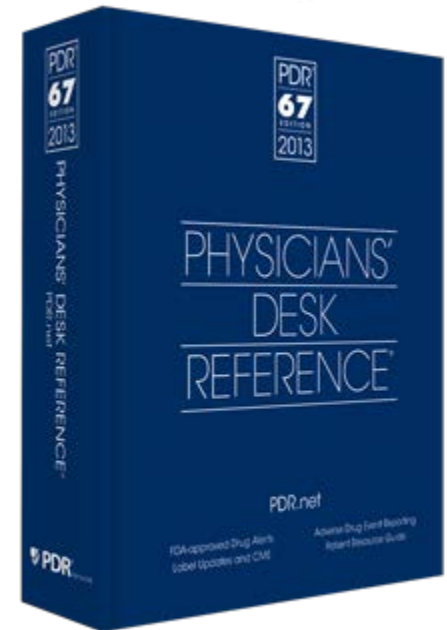


A Drug Called Exercise



A Drug Called Exercise

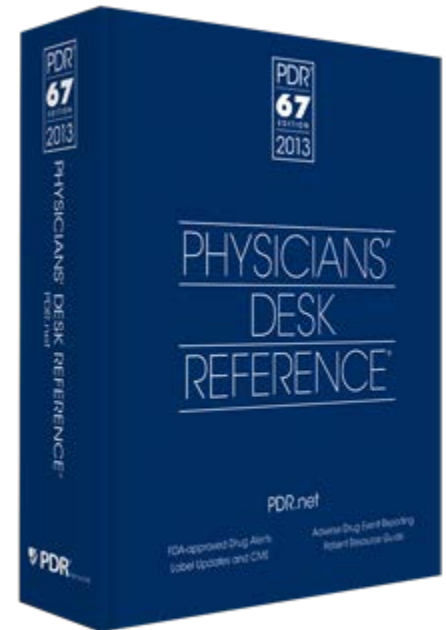
- **Generic name:** physical activity
- **Other Brand names:** walking, jogging, hiking, rolling, swimming, aerobics, biking, tennis, basketball, soccer, dancing, gardening, etc.
- **Dosage:** optimum 150 minutes per week in adults; 60 min per day in children has proven efficacy. Even low doses have been shown to have benefit. Advise to start with low dose and advance as tolerated.
- **Pregnancy and Lactation:** completely safe. Good for mother and baby.



A Drug Called Exercise

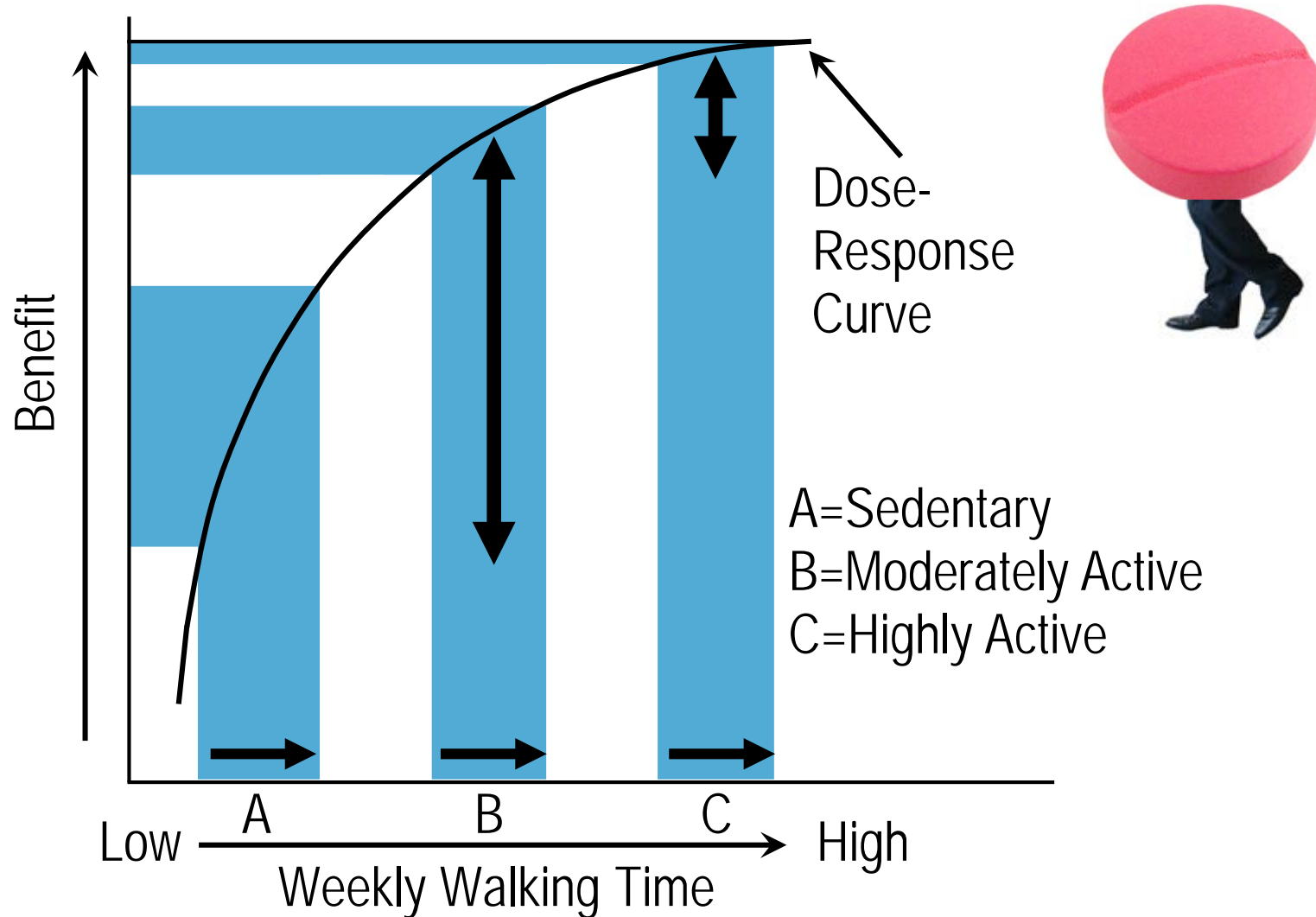
■ Indications and Usage:

- Prevent obesity and mitigate its risks
- Reduce development and improve management of diabetes
- Prevent and treat heart disease
- Lower risk of cancer (breast and colon)
- Treatment of hypertension
- Prevent osteoporosis and fractures
- Manage depression and anxiety
- Reduce risk of dementia
- Recreational uses
- Decrease risk of premature death



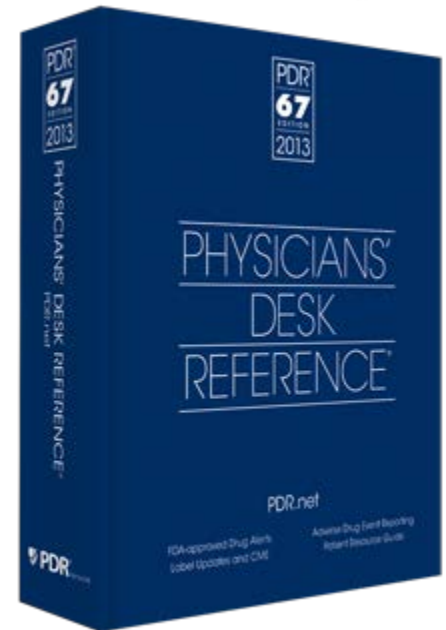
A Drug Called Exercise

Dose-Response Curve



A Drug Called Exercise

- **Side effects:** decreased BP, pulse and blood sugar; stronger muscles & bones, weight loss; improved mood, confidence, self esteem and concentration; Bowel & sleep habits improved; Look & feel better.
- **Adverse Reactions:** sweating, injury (overdose), sudden death (extremely rare).
- **Administration:** self administer or with others. Start off slowly, add minutes and intensity PRN. Change formulations to decrease boredom & improve compliance. Take outdoors or indoors any time of day.



Exercise is a wonder Drug

Physicians should prescribe; Patients should take!

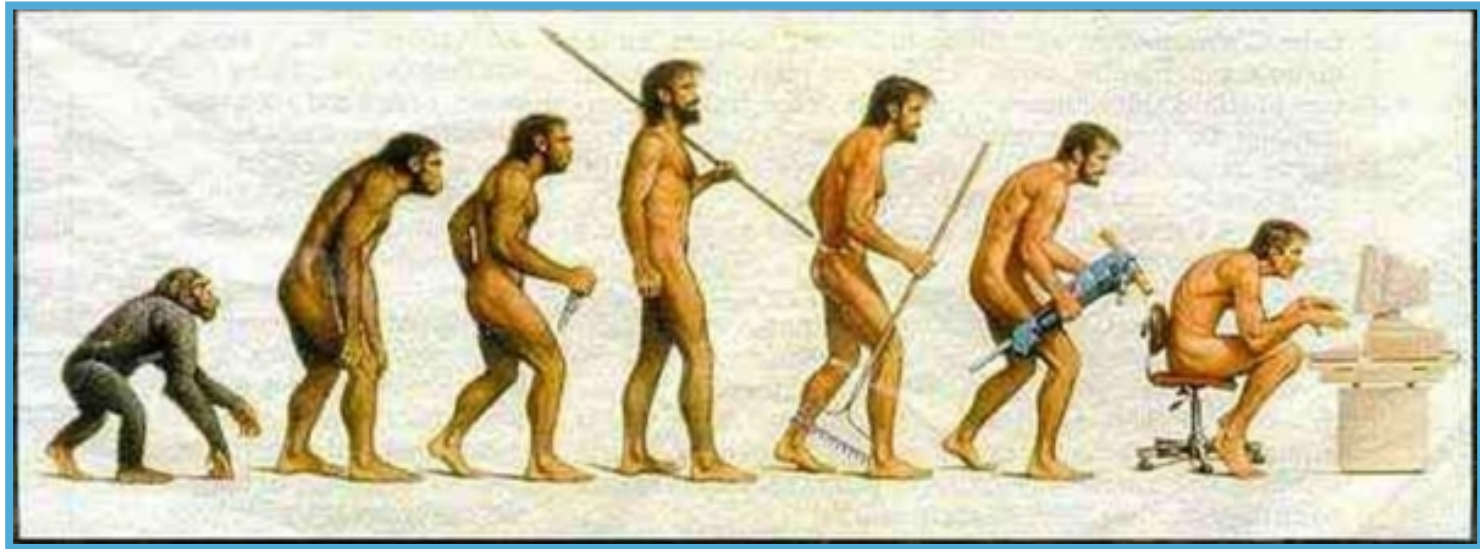
- *Exercise is Medicine* that can prevent & treat chronic disease and those who take it **LIVE LONGER**.
- If we had a pill that conferred the proven health benefits of exercise, physicians would prescribe it to every patient and healthcare systems would find a way to make sure every patient had access to this wonder drug.



Unfortunately – We have systematically engineered physical activity out of our daily routine

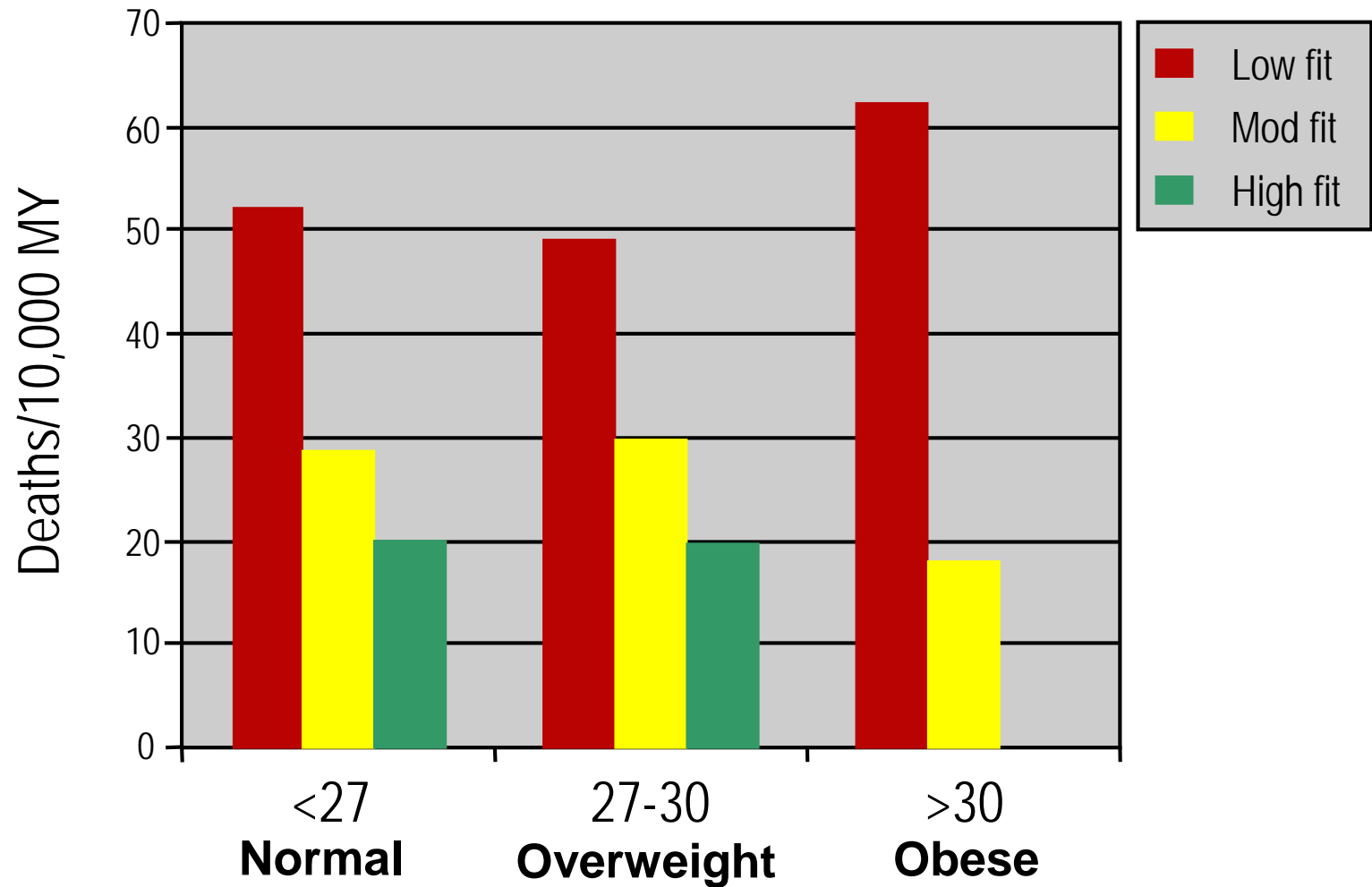


The Sedentary Death Syndrome; Are We On Our Way to Extinction?



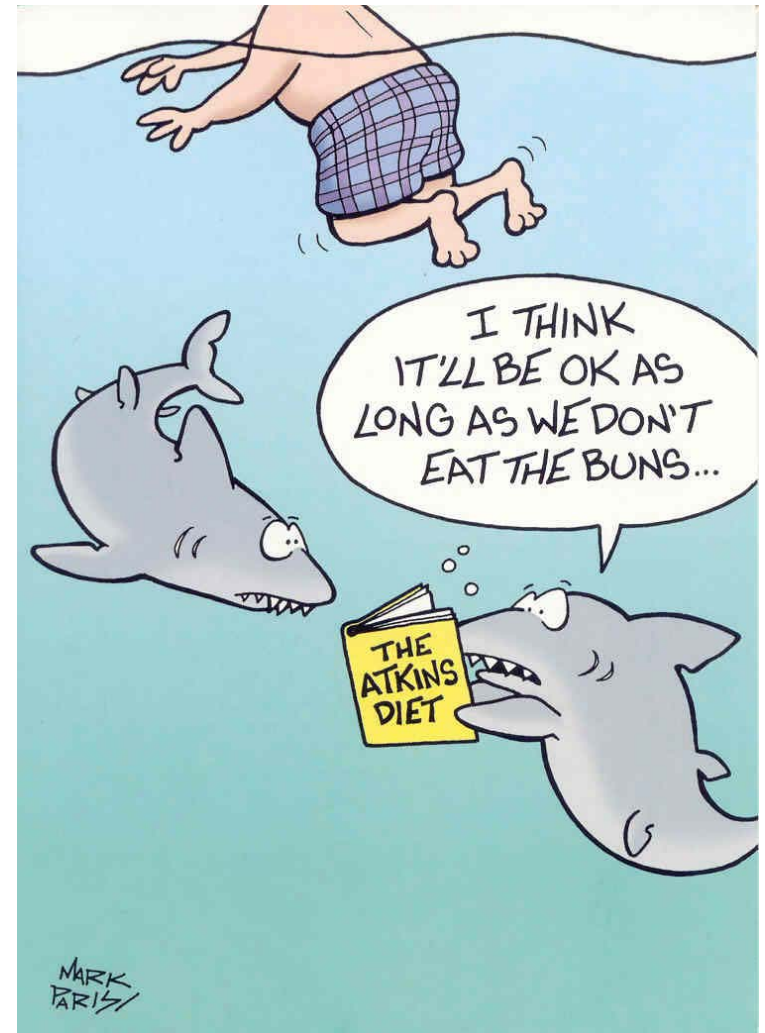
The inactivity epidemic is more concerning
than the obesity epidemic.

Death Rates by Fitness & BMI Categories

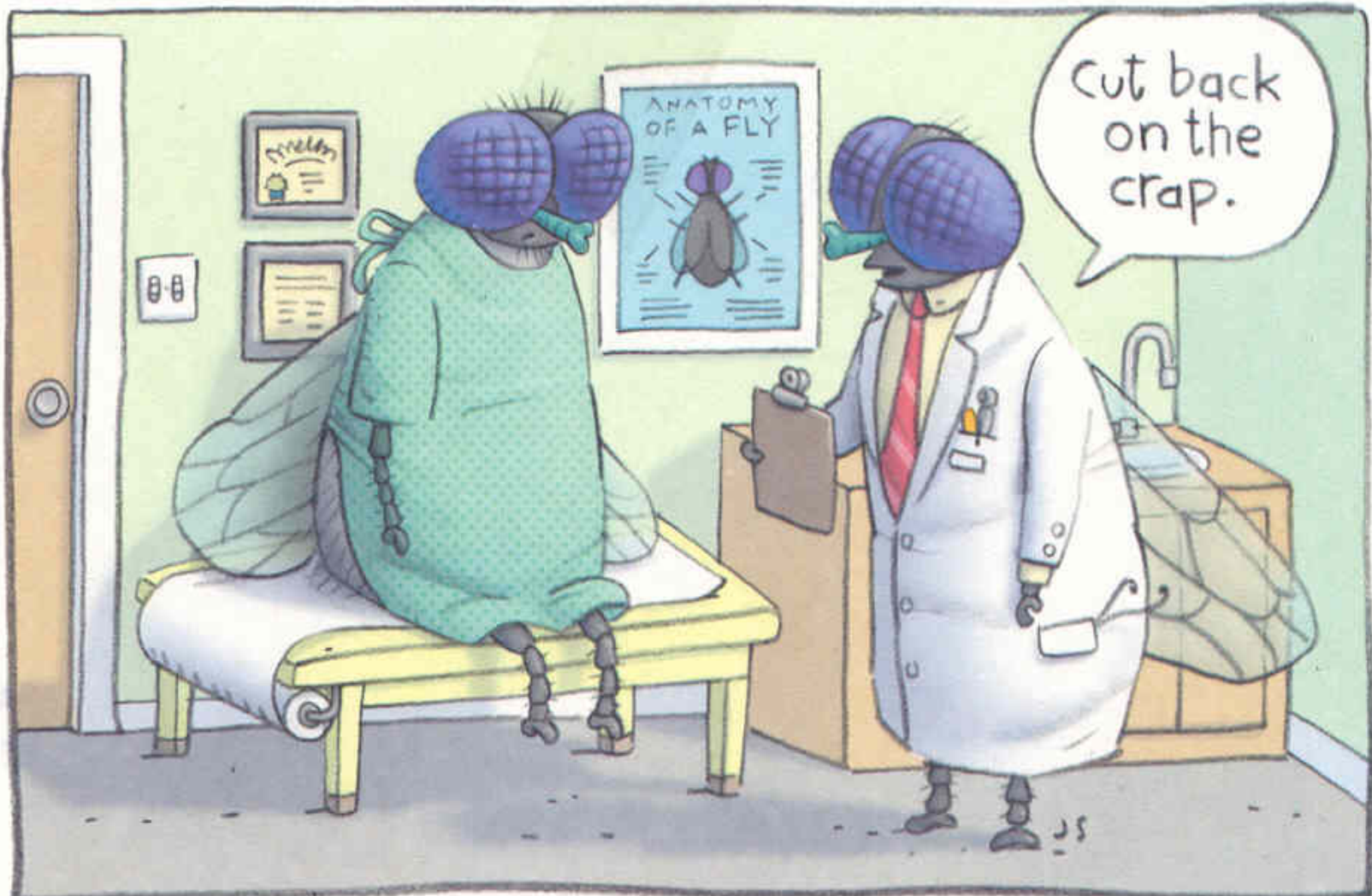


Fitness vs. Fatness

- Better to be fat and fit, than skinny and un-fit.
- Low level of fitness is a bigger risk factor for mortality, than mild to moderate obesity.
- Benefits of physical activity are the same, regardless of how much you weigh.



Patient's deserve to know the facts...



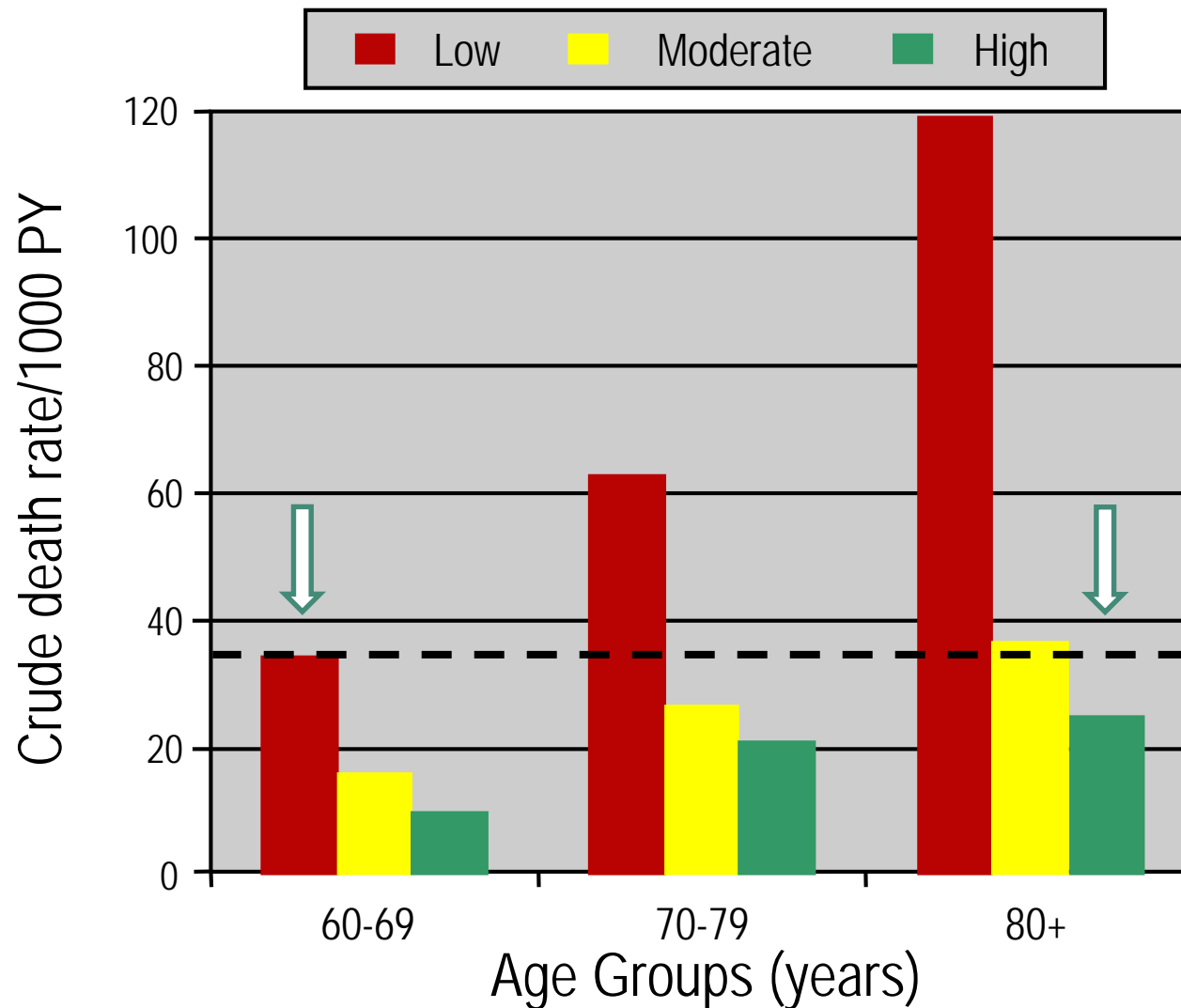
Irrefutable Evidence for Exercise in the Primary and Secondary Prevention of:

- Diabetes mellitus
- Cancer (breast and colon)
- Hypertension
- Depression
- Osteoporosis
- Dementia
- Coronary Artery Disease
- Lower death rate from all causes

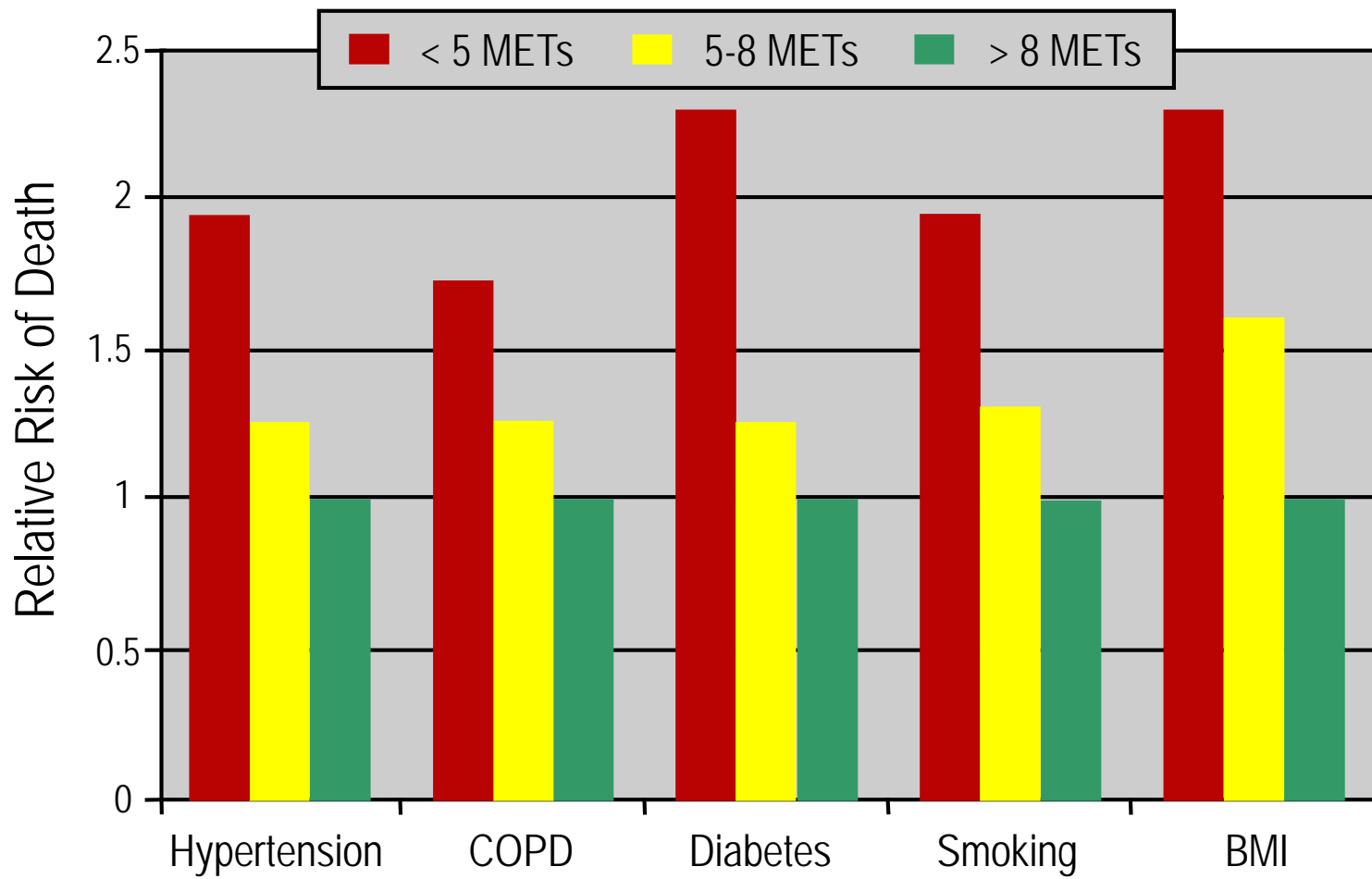
Physical Activity Lowers Mortality: Even With Increasing Age and Chronic Disease



Death Rates & Fitness Level



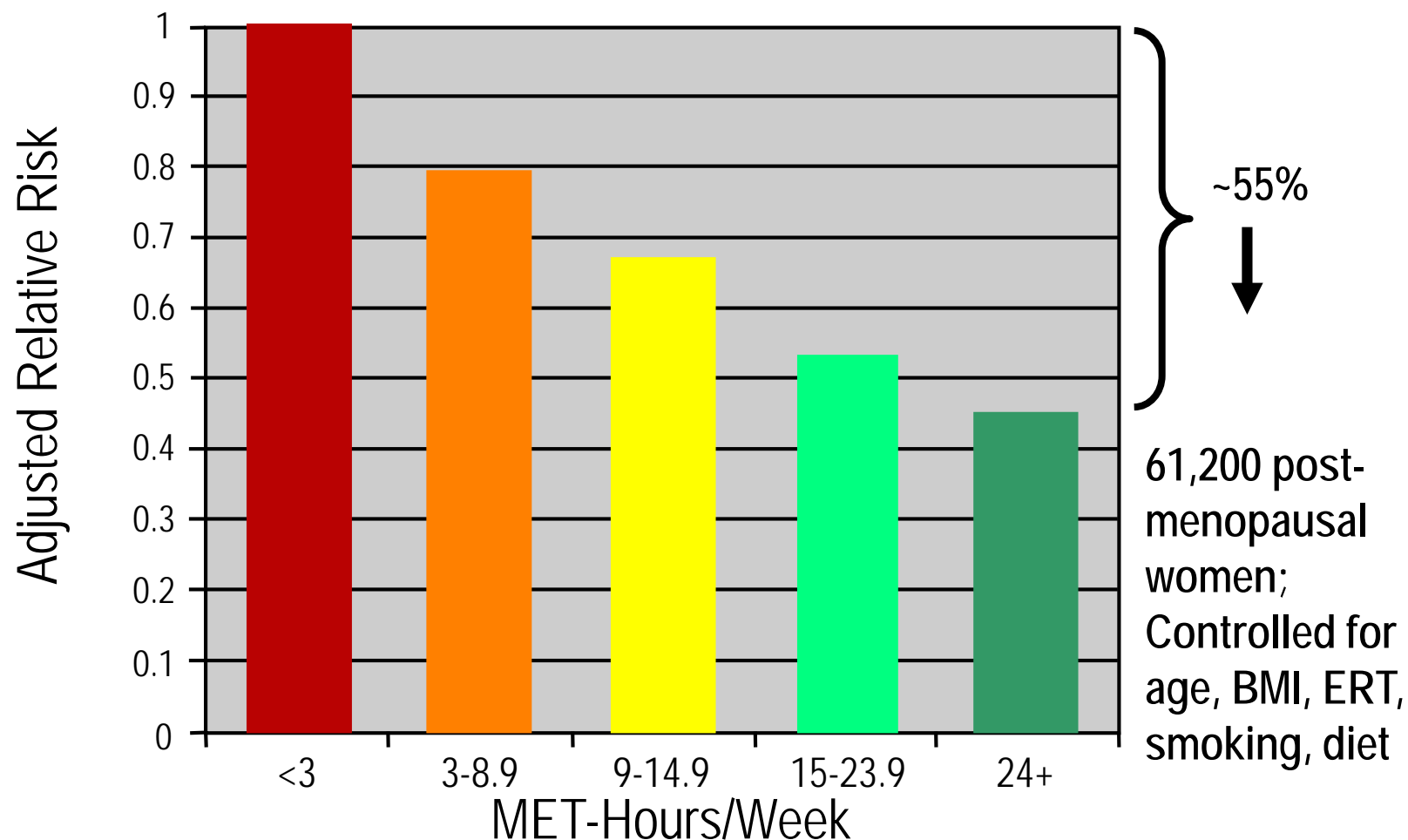
Exercise & Chronic Disease Mortality



Exercise is Cost Effective Medicine



Physical Activity & Hip Fracture *Risk*



Osteoporosis Drug Treatments

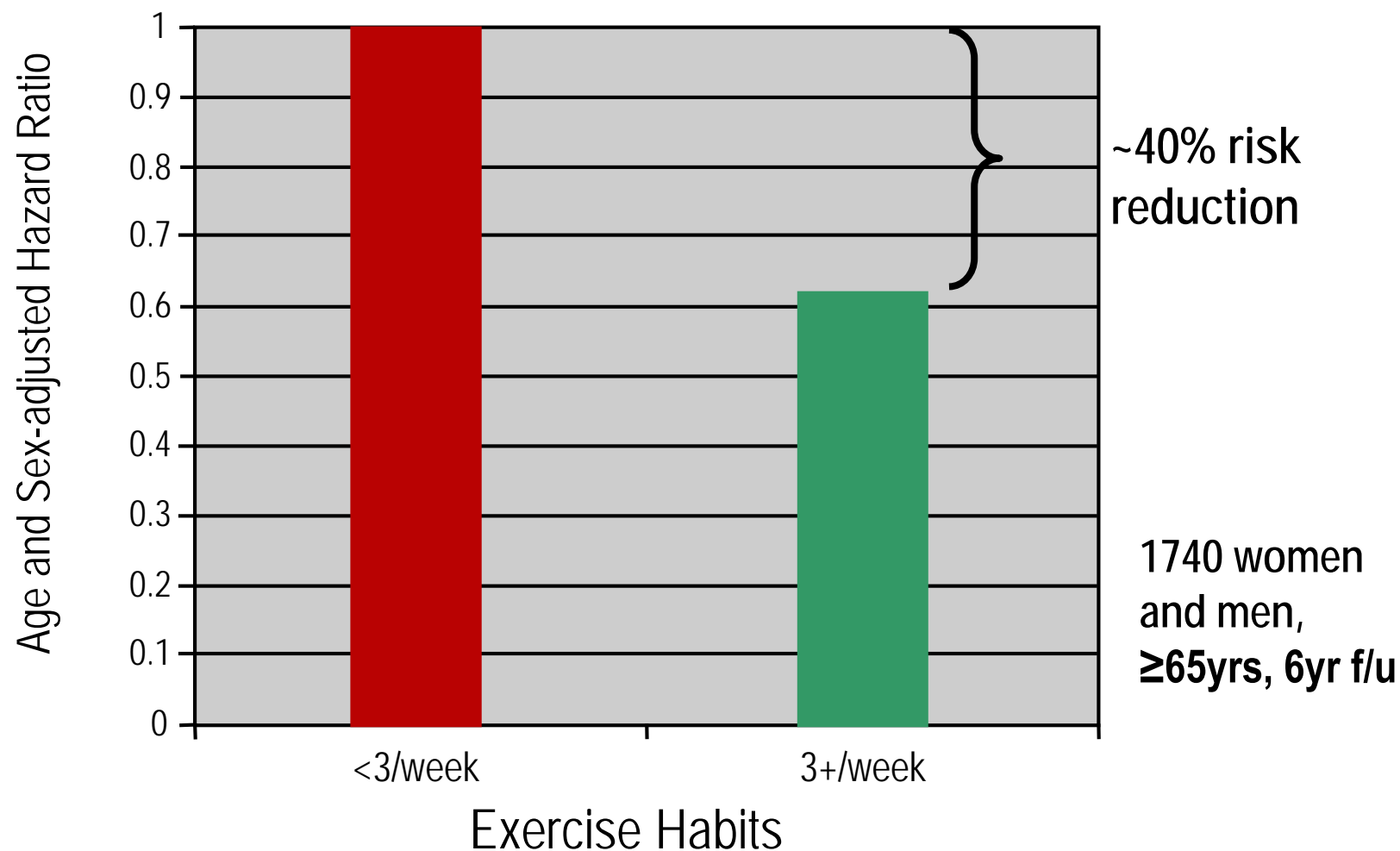
Cost Comparison

- Improve bone density, not primary hip fracture risk!*
- Alendronate (Fosamax) 70 mg weekly
 - \$102 per month**; \$1224 per year
- Evista (Raloxifene) 60 mg daily
 - \$150 per month**; \$1,800 per year
- Forteo (Teriparatide) 20 mcg SC daily
 - \$1016 per month**; \$12,192 per year
 - Efficacy > 2 yrs not established; May cause osteosarcoma in rats

*Cochrane Database Reviews

**Price for brand name on www.drugstore.com

Exercise and *Dementia*

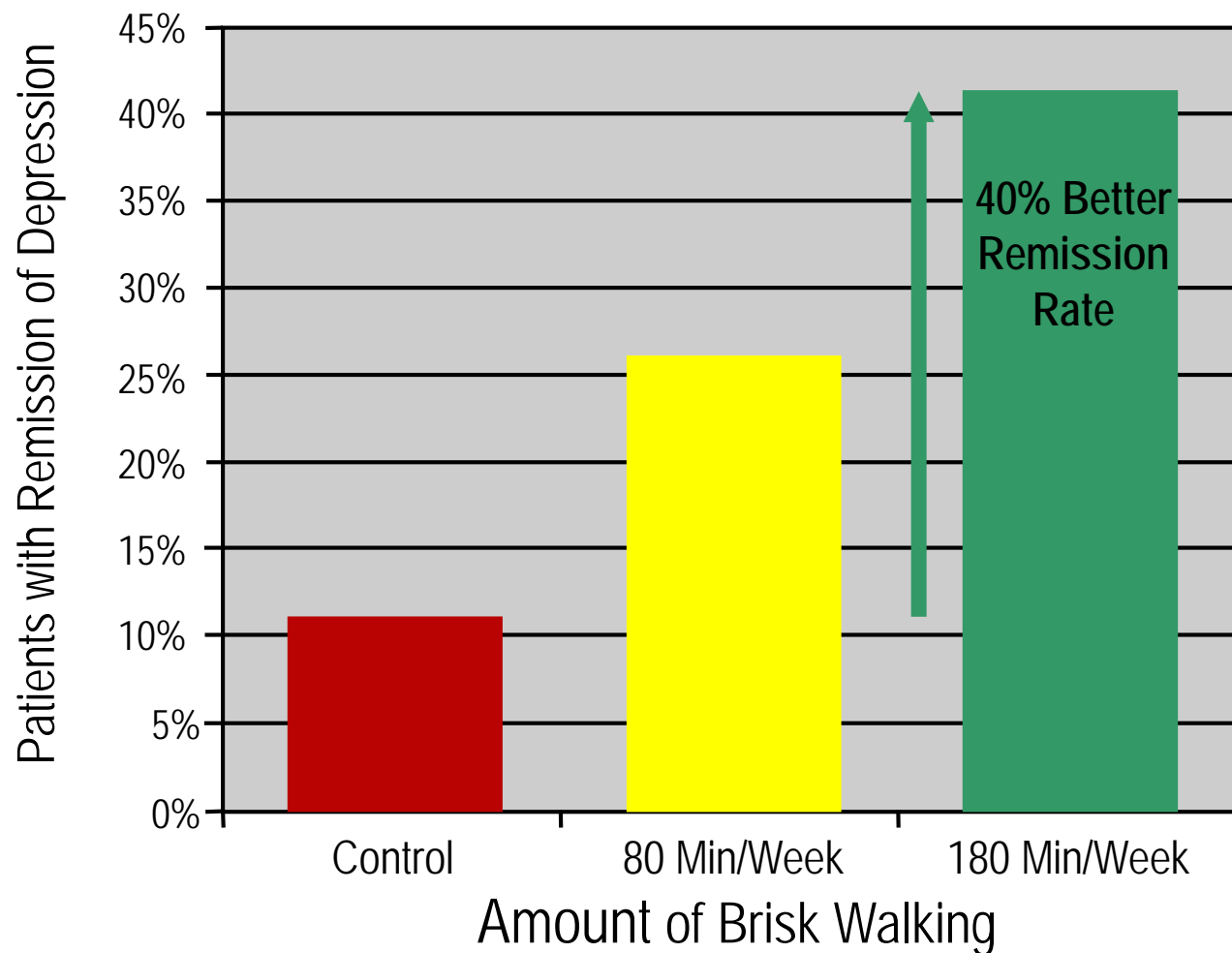


Alzheimers Drug Treatment Cost Comparison

- No evidence these drugs prevent dementia, *may* delay progression by 6-12 months
- Aricept (Donepezil) 10 mg QD
 - \$239 per month*; \$2868 per year
- Namenda (Memantine) 10 mg BID
 - \$191 per month*; \$2292 per year
- Exelon (Rivastigmine) 6 mg BID
 - \$250 per month*; \$3000 per year

*Price for brand name on www.drugstore.com

Exercise is a Treatment for *Depression*





Depression Drug Treatments Cost Comparison

- ~30% achieve remission of depression on meds*
- Zoloft (Sertraline) 100 mg daily
 - \$139 per month**; \$1668 per year
 - Black Box warning for increased suicide risk!
- Abilify (Aripiprazole) 40 mg daily
 - \$765 per month**; \$9180 per year
- Zyprexa (Olanziprine) 20 mg daily
 - \$1286 per month**; \$15,432 per year

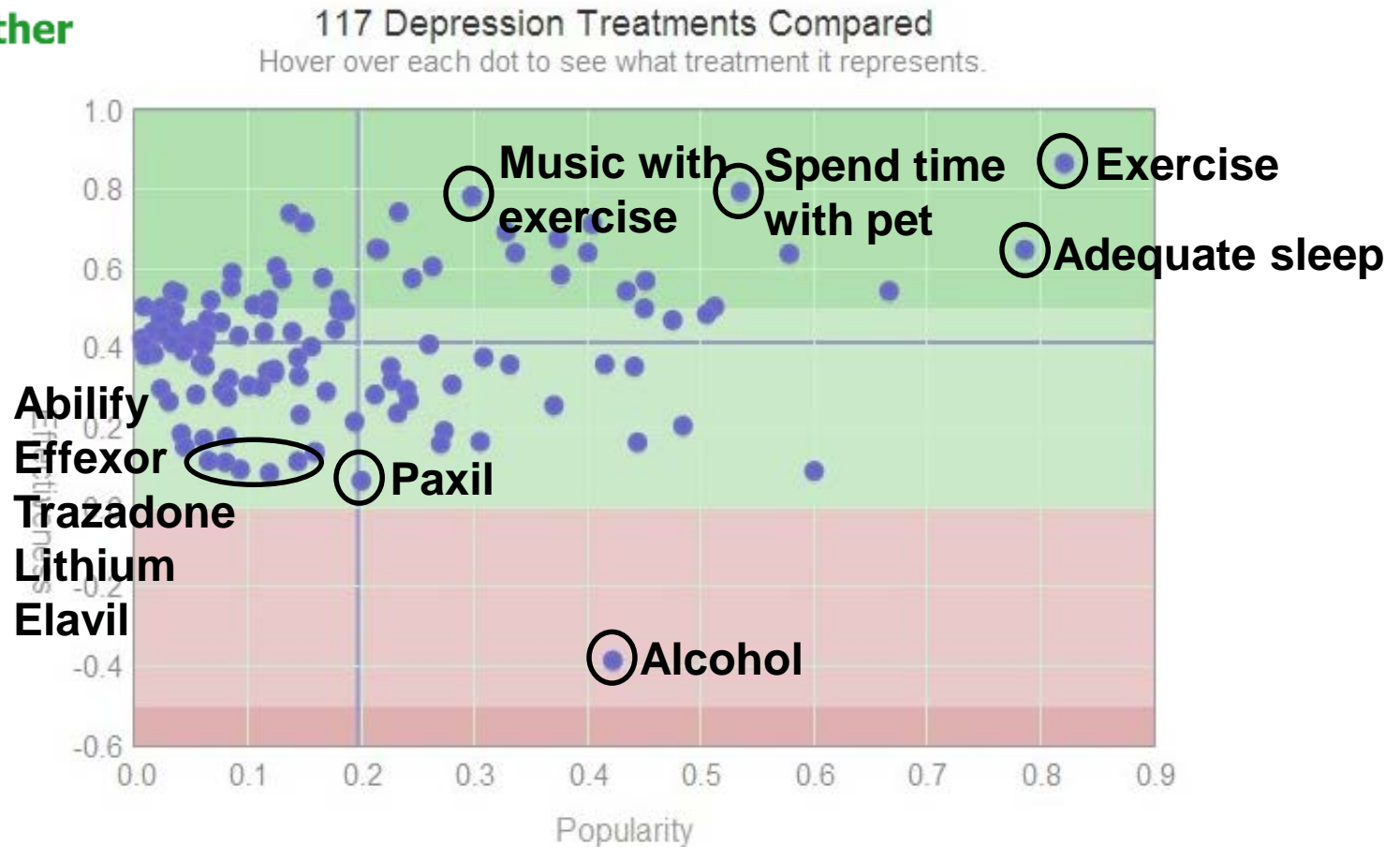
*STAR*D Study

**Price for brand name on www.drugstore.com

Exercise is Powerful Medicine Just ask patients who use it!



<http://curetogether.com>

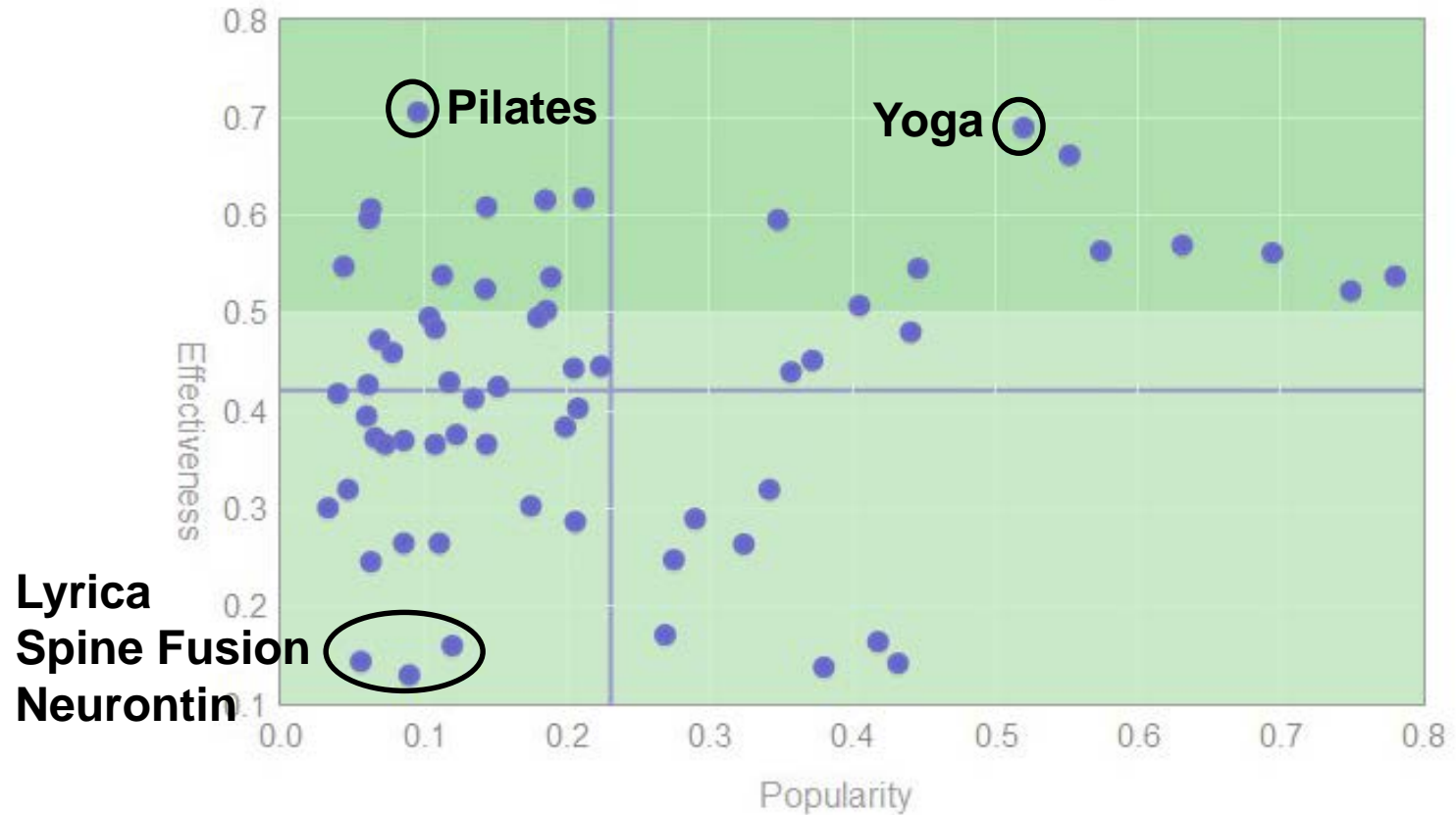


This infographic is based on a total of 22,800 treatment effectiveness ratings.

<http://curetogether.com>



63 Lower Back Pain Treatments Compared
Hover over each dot to see what treatment it represents.

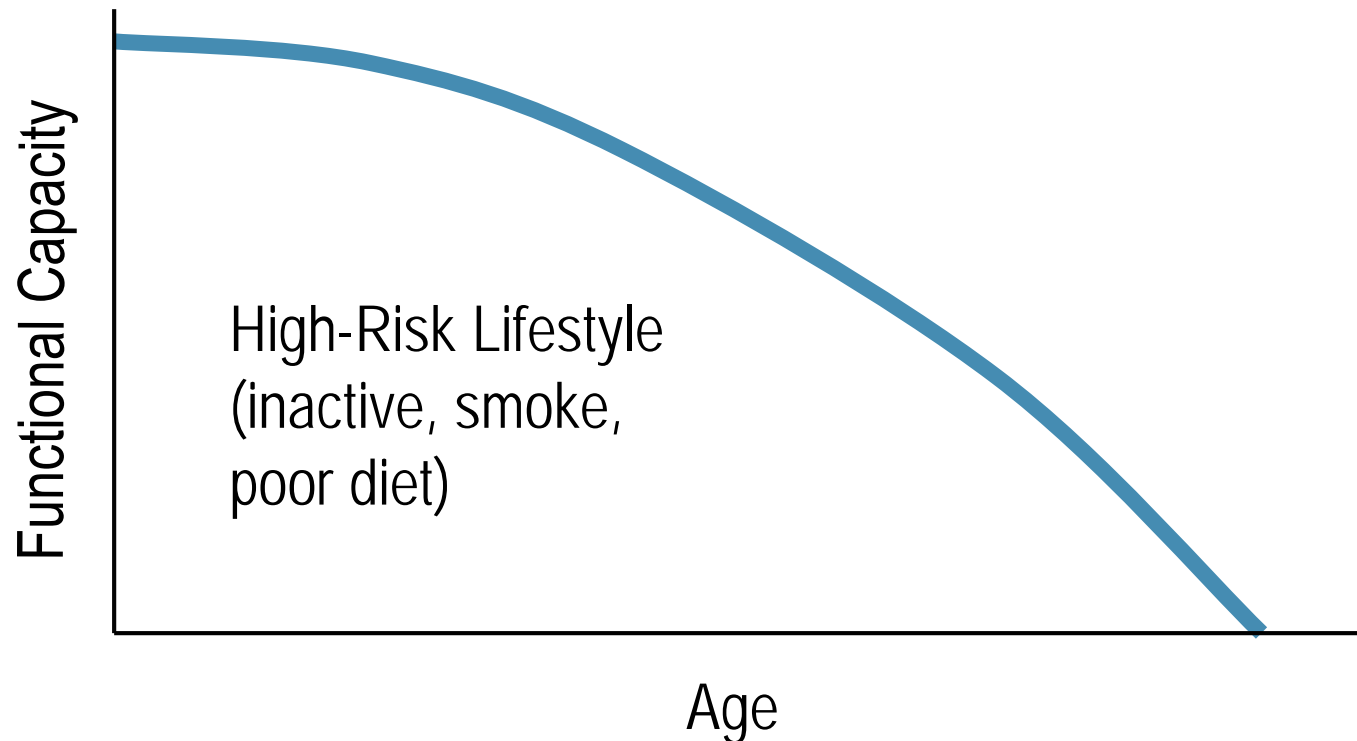


This infographic is based on a total of 4,044 treatment effectiveness ratings.

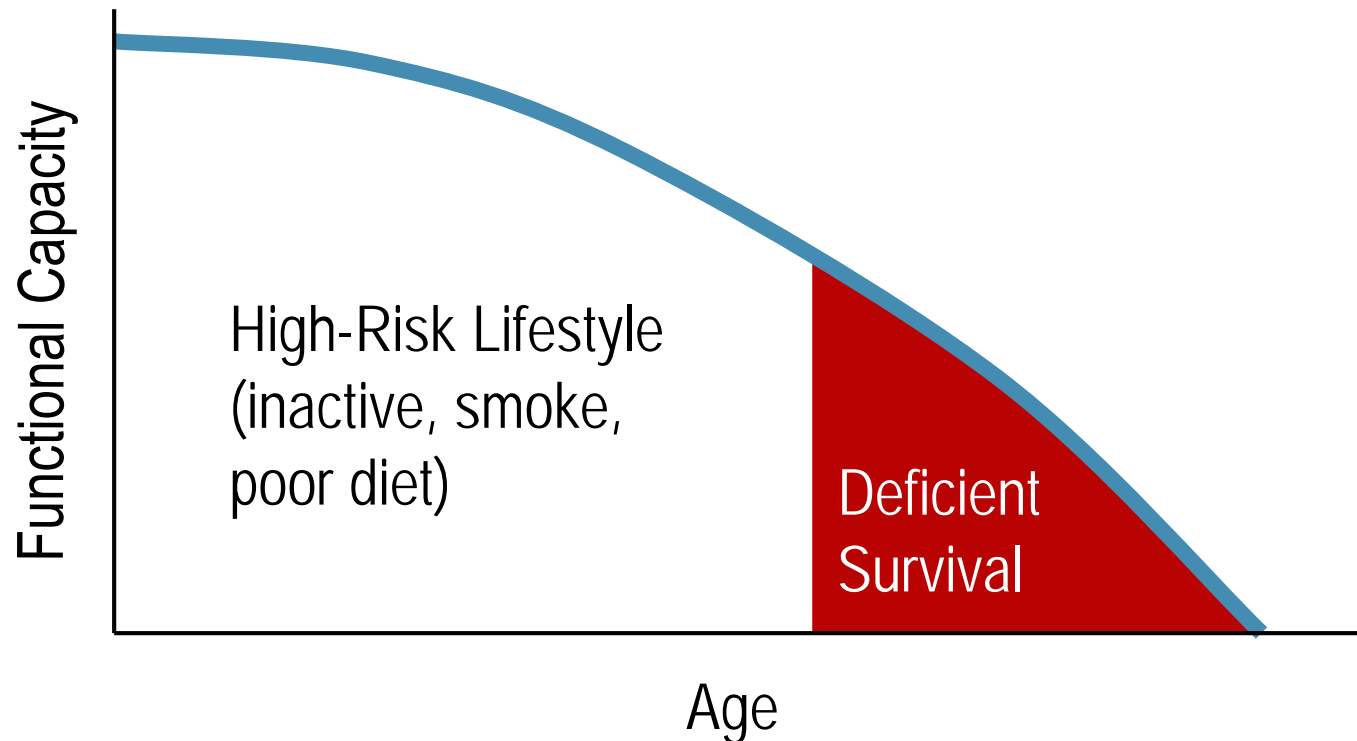
Exercise and Quality of Life



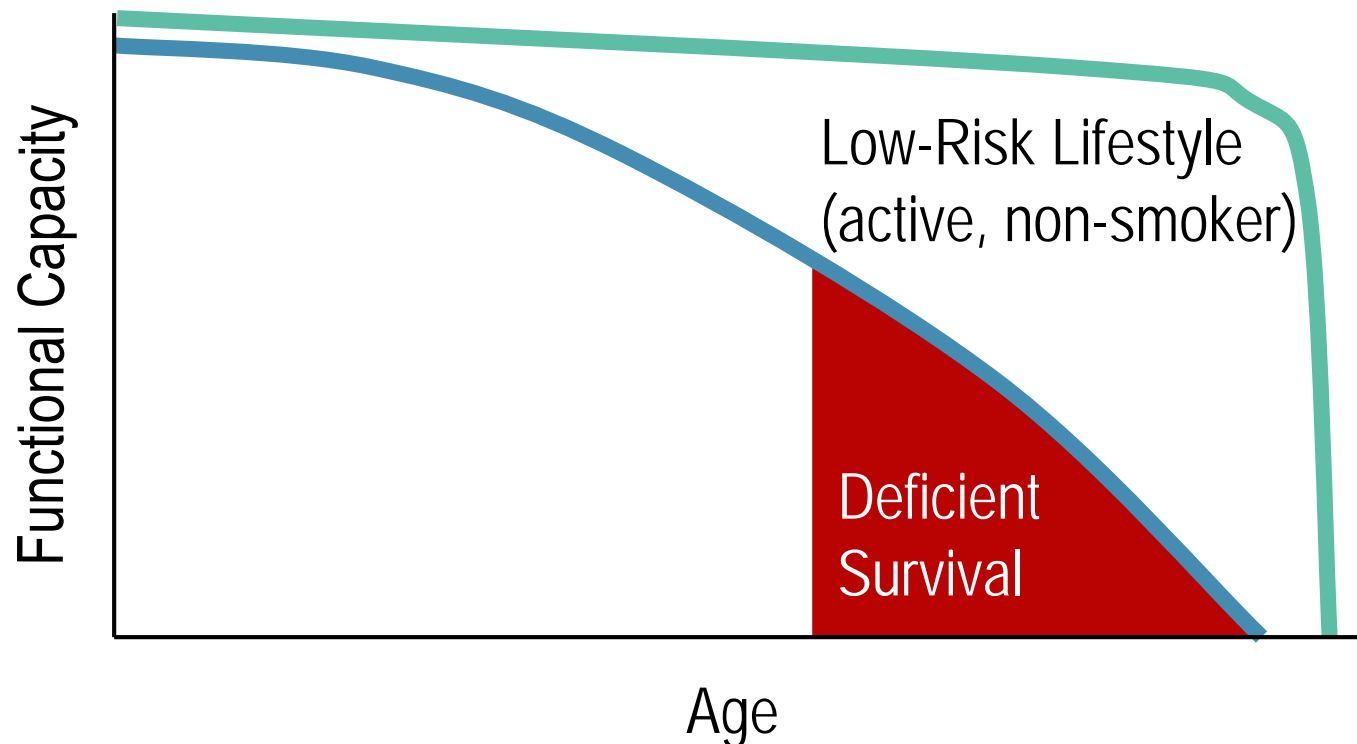
Quality of Life; The Geriatric Curve



The Effect of an Unhealthy Lifestyle “Deficient Survival”



The Effect of a Healthy Lifestyle “Squaring off” the Geriatric Curve



“The idea is to die young as late as possible.”

Ashley Montagu



Why Has the Medical Community Neglected Physical Activity as a Treatment?

- Easier for physician to issue a prescription to reduce BP, cholesterol, glucose or BMI.
 - Medication adherence is very low (1 in 6 take meds as prescribed).
 - Reliance on pills transfers responsibility for health to doctor resulting in lower patient physical activity.
- Widespread belief we cannot change physical activity habits. However:
 - Evidence brief counseling and pedometer programs can increase physical activity.
 - We are able to convince patients to take insulin shots, Coumadin, chemotherapy, etc – why not exercise?

Name this medical device?



Circa 1750's-1810's

Tobacco Smoke Enema



Rectal tube attached to fumigator & bellows to treat drowning (also constipation, cholera and convulsions)

Tobacco Smoke Enema



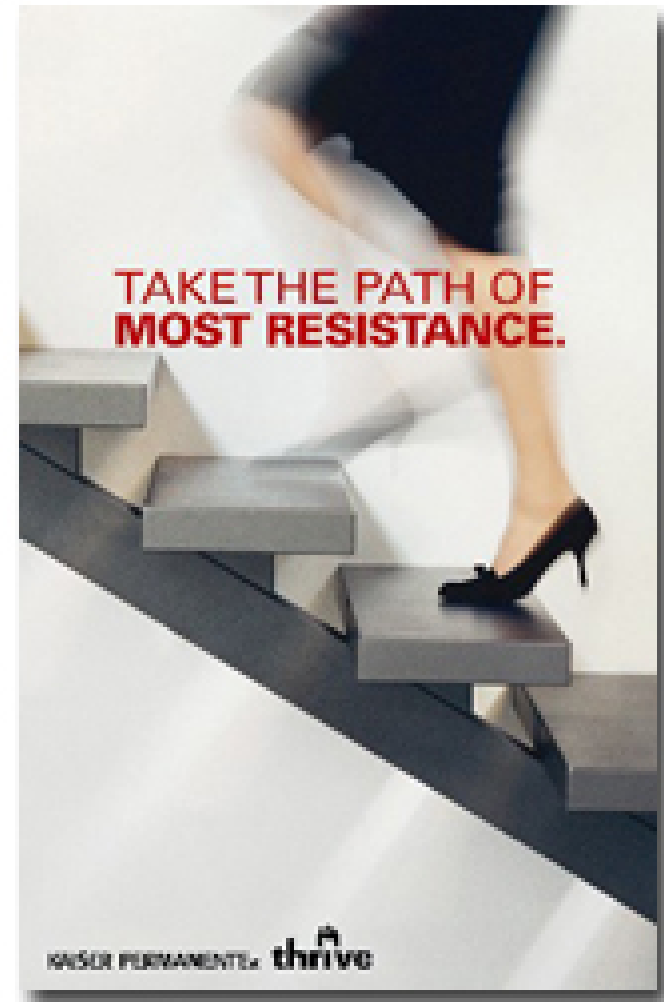
Hence the term "Blowing smoke up your ass"
is actually a medical term

If we can convince a walrus to exercise...



What Can We Do?

- World Wide Exercise Rx initiative:
 - Every patient; Every visit;
Every treatment plan.
- Physical activity should be recorded as a vital sign and patients advised to get 30 min of mod exercise, 5 days per wk.
- Message should be the same from every medical provider.
- We must begin to merge the healthcare industry with the fitness industry.



Goal:

- To make physical activity assessment and exercise prescription a standard part of the disease prevention and treatment paradigm for all patients



Exercise Is Medicine

- A global initiative sponsored by the ACSM and AMA.
- National launch held November 07' in Washington, D.C;
Global launch in May 08'.
- Supported by *Surgeon General*, along with President's & CA Gov Councils.



www.Exerciseismedicine.org

Exercise is Medicine™

MAY-KIT HAPPEN MAY 2008

About EIM
Contact Us
Join Us

Exercise is Medicine™
Calling on physicians to assess and review every patient's physical activity program at every visit.

Physicians
Exercise prescription: every patient, every visit, every time. Pledge your support.
Learn more»

Health & Fitness Professionals
Exercise counseling and training comes full circle.
Learn more»

Public
Start the conversation with your physician to improve your health and wellness.
Learn more»

Media
Learn more about physician-prescribed exercise. Interview requests. Expert Contacts.
Learn more»

Policy Makers & Advocates
Advocacy to support physical activity counseling and referrals.
Learn more»

Supporting Organizations
Working together to advance the cause of Exercise is Medicine.
Learn more»



■ Over 40 Countries represented; 7 Regional Centers:

- North America
- Latin America
- Europe
- China
- Southeast Asia
- Africa
- Australia



Exercise as a Vital Sign

- Essential first step in moving EIM initiative forward.
 - Every patient needs to be asked about their exercise habits at every visit.
 - Record with traditional vital signs, BMI and smoking hx.
- EVS in use at KP So Cal since October 2009; All regions since 2012.
 - 35 Medical Centers; ~10 million patients.
 - Medical assistant ask and record EVS at every patient visit, regardless of specialty.

Smith, John W

MRN 000017701887 Age 30 year Sex M PCP Spero, Robert David (M.D.) Allergies Sulfa Class, Acarbose, 5-alpha Reductas* Alert Spec Feat kp.org Inactive

SnapShot

Chart Review

Flowsheets

Problem List

History

Letters

Demographics

Proactive Care

Order Entry

Imm/Injections

Allergies

Medications

Activity Rx/Forms

Forms

Enter/Edit Results

Doc Flowsheet

Visit Navigator

4/22/2009 visit with TEST DUMMY MD

Images Questionnaires Admin Benefits Inquiry References SmartSets Open Orders Preview AVS Print AVS

Allergies: Sulfa Class, Acarbose, 5-alpha Reductase Inhibitors, Acetaminophen + Propoxyphene Napsylate Reviewed on 2/27/2009

Last Vitals: BP: 120/80 P: 60 T: T Src: Resp: 22 W: 190 lbs (86.183 kg) H: 5' 10" (1.778 m)

BMI: 27.26 kg/m2, BSA: 2.06 m2 Exercise Vitals: 180 mins/wk

Height 5' 10" (1.778 m)

Peak Flow

Charting

Chief Complaint

Nursing Notes

Vitals

Exercise Vitals

Review Exercise VS

Med. Document

BestPractice

History

Progress Note

SmartSets

Dx and Orders

Pt. Instructions

LOS

Follow-up

Close Encounter

Exercise Vitals - Exercise Vitals (SHIFT+F6 to enter comments)

Instant Taken:

Date: 4/30/2009

Time: 1149

Exercise Level of Effort

Days per week of moderate to strenuous exercise (like a brisk walk)

0 1 2 3 4 5 6 7

On average, minutes per day of exercise at this level

10 20 30 40 50 60 90 120 150 or greater

Restore Close F9 Cancel

Previous F7 Next F8

Review Exercise Vitals

Mark as Reviewed Last Reviewed by SHARMA, PANKAJ on 4/24/2009 at 12:36:26 PM

Medication Documentation

Current Prescriptions	Taking?	Start Date	End Date
ATENOLOL 100 MG ORAL TAB TAKE 1 TABLET ORALLY DAILY		4/29/2009	
ATENOLOL 100 MG ORAL TAB 1 TAB PO DAILY		4/29/2009	5/29/2011

Provider: William Lewis (M.D.) Sperling

Hotkey List

Exit Workspace

Navigator Hotkeys



What Can Busy Physicians Do to Encourage Physical Activity?



0 Minutes:

-  Running late? Too many other concerns on the patient's list? Relax. Perhaps you can discuss physical activity at next visit. Hopefully office staff will have assessed exercise and provided resources.

1 Minute for Advice:

-  Quickly congratulate patients who are getting 150 minutes or more of moderate or greater physical activity.
-  Advise patients who are getting fewer than 150 minutes of the importance of physical activity, especially linking benefits to patient's complaints, problems, and diagnoses.

Write a walking Rx for patients!



KAISER PERMANENTE®

Name: John W. Smith Age: 30

Walking **R_x**

Date: _____

Recommended activity level: Moderate

Minutes per day: 30 minutes

Number of days per week: 5 or more

Intensity: Hard enough that you can't sing,
but not so hard you can't talk during exercise.

Stop: If you experience chest pain,
excessive shortness of breath or feel ill.

Signature: Robert Sallis, MD

Every Body
WALK!
www.everybodywalk.org



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What Can Busy Physicians Do to Encourage Physical Activity?



🕒 2 Minutes for a Prescription:

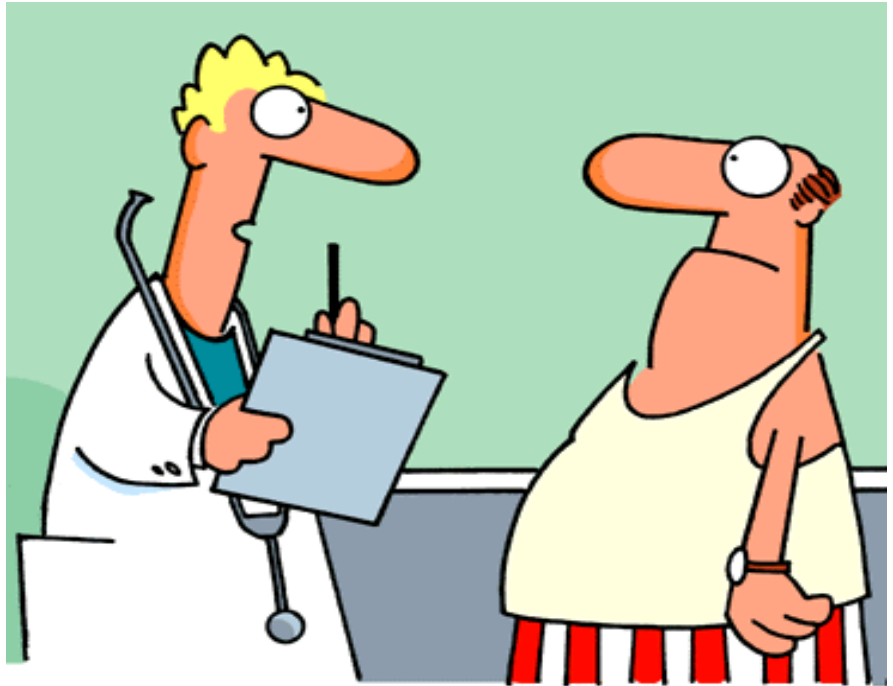
- 🕒 Review key messages about the importance of physical activity.
- 🕒 Offer a generic Exercise Prescription.
- 🕒 Suggest useful resources (e.g. pedometer, community resources, chair exercise DVDs and videos, fitness professional).

🕒 5 Minutes for Brief Counseling:

- 🕒 Assess readiness for change regarding exercise habits.
- 🕒 Ask what the patient might want to do to be more active and barriers to prevent this from happening -- brainstorm on how to get around them.
- 🕒 Explain in detail how exercise can affect diseases they have or are at risk for and how they can go about incorporating it into their life.

Common Barriers to Exercise

- Competing demands (work/kids/spouse)
- Not enough time
- Too tired
- Physical limitations
- Too boring
- Sedentary habits



“What fits your busy schedule better, exercising ½ hour a day or being dead 24 hours a day?”

Breaking Down the Barriers

- Make exercise a habit, not an option.
- 150 min per week is goal – not starting point; so start small:
 - 1-2 days per week
 - Three 10-min bouts.
- Simple recipe for getting your exercise:
 - AM; park car 10 min from office, walk in
 - Lunch; walk 5 min out, eat, walk back
 - PM; Walk 10 min back to car

Breaking Down the Barriers

- Make weekends count!
 - Change mindset; weekends are for fitness.
 - Walk 60 min on Sat or Sun, only need 90 more minutes during week.
- Bump up intensity and get same benefit in less time!
 - 25 min of vigorous exercise (jog) done 3x per week is equivalent to 30 min of moderate (brisk walk) done 5x per week
- More ideas:
 - Find an exercise partner
 - Get good shoes and nice workout clothes
 - Set goals (fun run, sprint triathlon)

Clinicians need help!

How do we integrate fitness into healthcare?

- I need something beyond telling my patient to go walk
- Components of fitness
 - CV fitness
 - Strength
 - Flexibility
- Need to be able to refer
 - Fitness professional or Health Club
 - EIM Solution



Future Challenges for EIM

- Role of the fitness professional;
Merging fitness with healthcare
 - Change focus from clients to patients.
 - Change focus from abs and buns to hearts and lungs.
- Role of the scientist;
Increase research funding and interest
 - Need to figure out how change behavior around exercise.
 - Need to figure out the mechanism behind why exercise works.
 - Why aren't more researchers interested?!



Do You Really Think We have a Chance Without Exercise?

- Obesity
- Coronary artery disease
- Diabetes
- Hypertension
- Cancer
- Depression and anxiety
- Arthritis
- Osteoporosis
- Etc, etc, etc...

NO!



Every Body WALK!

The Campaign to Get America Walking

www.everybodywalk.org

EVERY BODY WALK!

LET'S ALL WALK FOR FUN AND BETTER HEALTH

I'd like to personally invite you to join me on an important and fun mission to walk 30 minutes a day, five days a week ... and to help us spread the word about how walking may be the single most important commitment you can make to your health and the health of our nation.

If we each walk 30 minutes a day (or 15 minutes twice a day), five days a week, we will be taking the most effective course of action possible to help prevent or help manage chronic health conditions, including type 2 diabetes, heart disease, depression, and asthma. It's really that simple. The research supporting the benefits of walking is irrefutable and growing every day — and you'll feel good doing it.

I am pleased to announce that we are introducing a new online walking program, called KP Walk!, to support and encourage all of us at Kaiser Permanente to walk 30 minutes a day, five days a week. To learn more about this program, go to www.kpwalk.com and get started on your journey to better health.

KP Walk! is complemented by an external campaign that Kaiser Permanente is launching called Every Body Walk! Information about this campaign can be found at www.everybodywalk.org.

Let's all walk ... and thrive!

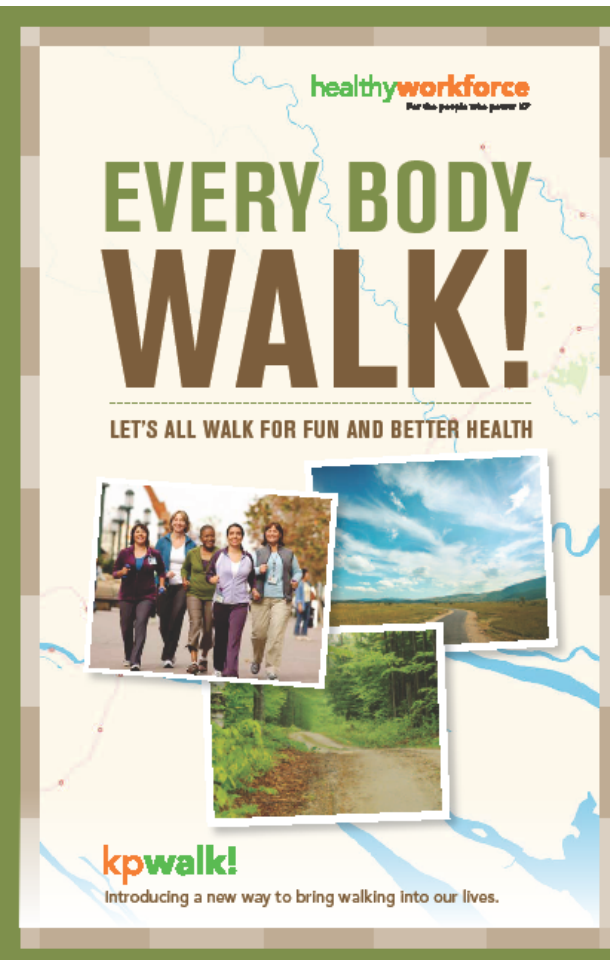
George Halvorson
Chairman and CEO
Kaiser Foundation Health Plan, Inc. and Kaiser Foundation Hospitals

This mailer is printed with 50% recycled paper using 30% post-consumer waste and soy-based ink.



George Halvorson
Chairman and CEO

Kaiser Health Plan and Hospitals



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Every Body WALK!

The Campaign to Get America Walking

www.everybodywalk.org

Every Body WALK!

THE CAMPAIGN TO GET AMERICA WALKING

Celebrating Occupational Therapy Month



Every Body WALK!

THE CAMPAIGN TO GET AMERICA WALKING

Celebrating Occupational Therapy Month



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Meet Up



Find walking meet ups near you with the help of MeetUp.com!

Meetup is the world's largest network of local groups. Meetup's mission is to revitalize communities and help people self-organize. Join one of many existing walking clubs, organize meetings and events, or form new walking groups in your neighborhood.

Meet up
motivati
meet of
zip code

Enter zipcode or city
Example: "97086" or "Portland,"

Submit

Every Body WALK!

THE CAMPAIGN TO GET AMERICA WALKING

Celebrating Occupational Therapy Month



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Updates

National Walk To Work Day: 5 Great Health Benefits Of Walking



Today is the eighth annual National Walk to Work Day. If you're reading this, you may already be at your desk. And, like 91 percent of the population, you probably arrived there by car (86 percent) or public transportation (5 percent). But it's not too late! There's still time to pound the pavement on your way back home -- or, if that isn't possible, take a

walk during your lunch break. (If you happen to be in New York, the new "pedestrian corridor" in midtown might be a good place to start.)

Latest News

- ▶ National Walk To Work Day: 5 Great Health Benefits Of Walking
- ▶ "The Way" Offers Inspiration For Walking Journey
- ▶ Take Walking To Work To The Next Level
- ▶ The Best Cities For Walking
- ▶ National Start! Walking Day
- ▶ Diabetes Alert Day: Take A Risk Test, Save Your Life
- ▶ A Long Walk Unspoiled
- ▶ Time to Walk Off the Weight and Forget Your Excuses Ladies
- ▶ Nutrition Month 2012: 25 Common Food Myths Busted

Watch

Walking only 30 minutes a day can make a difference in your health. We've brought in medical experts to offer advice on getting started; we met up with walking groups to inspire ideas to bring walking to your community; and tracked down success stories to prove that walking really can improve your overall health.



Bob Sallis, MD: Wear a Pedometer



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How fast do you need to walk; To stay ahead of the Grim Reaper?



- Several studies have shown correlation between walking speed and survival.
- 1705 Australia men, age ≥ 70 ; Measured walking speed at usual pace for 6 m (~20 feet); Speed correlated with mortality rates over 5 yrs.:
 - Walking speed of 0.82 m/s (2 mph or 3 kph) was most predictive of mortality (i.e. speed of Grim Reaper)
 - No men walking at speeds ≥ 1.36 m/s (3 mph or 5 kph) were caught by Grim Reaper
- Walking faster protects against mortality!

Kaiser Permanente – Thrive “Find Your Thing”

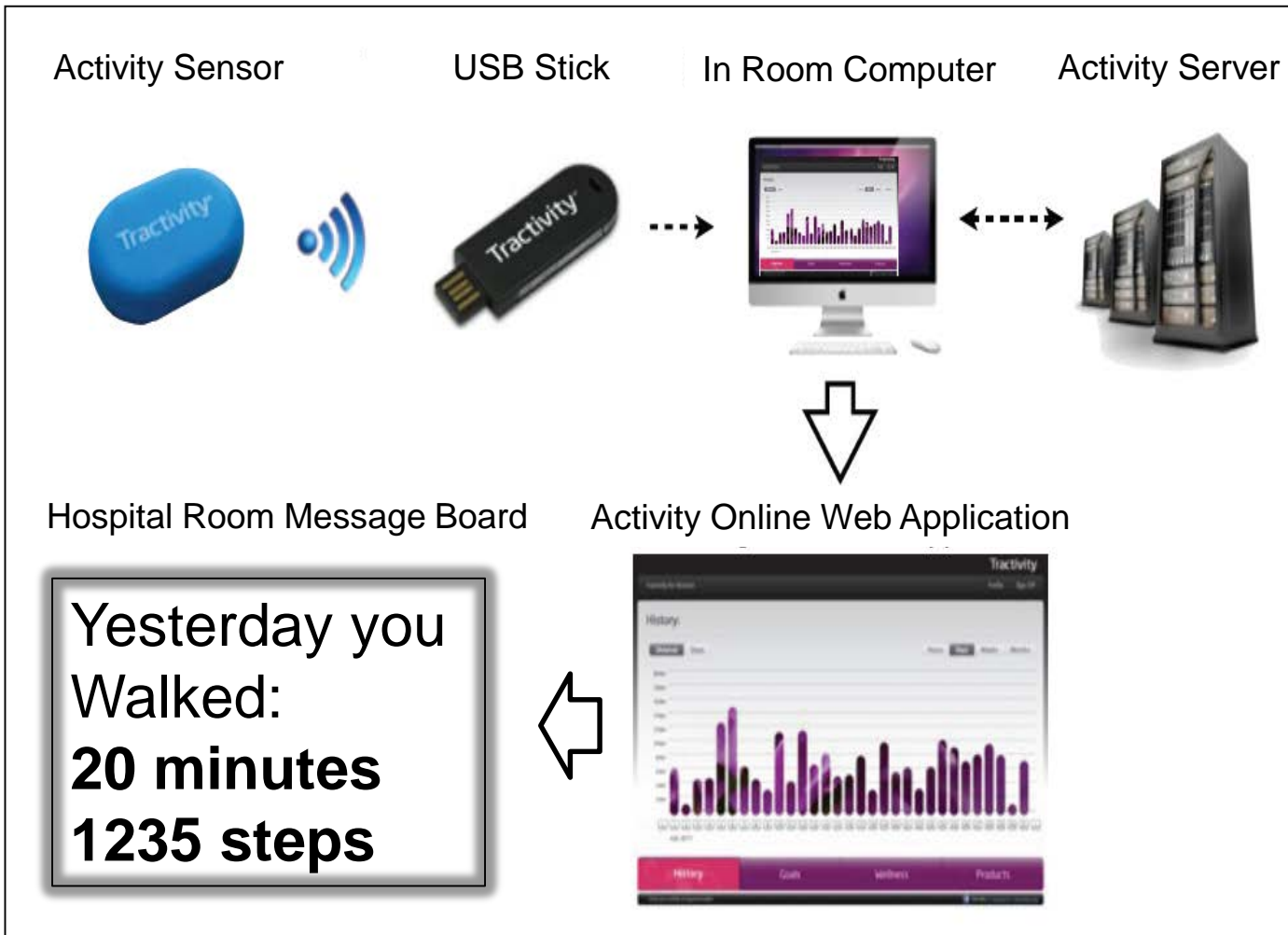


Exercise Vital Sign in the Hospital

- Studies show hospital patients who walk during hospital stay have fewer complications and get discharged sooner.
- Activity sensor measures number of steps and minutes walking in hospital patients.



Promoting Walking in Hospital Patients



Summary

- Evidence is overwhelming on the cost and health burden of being sedentary.
- Benefits of exercise in the prevention and treatment of disease are irrefutable.
 - Healthcare providers have an obligation to inform patients of the risks of being sedentary.
 - Exercise should be assessed and prescribed at every visit using an Exercise Vital Sign.
 - We need to merge Fitness with Healthcare!
- ***Exercise is Medicine*** we all need to take and prescribe to patients!



Kaiser Permanente – “Thrive”

