

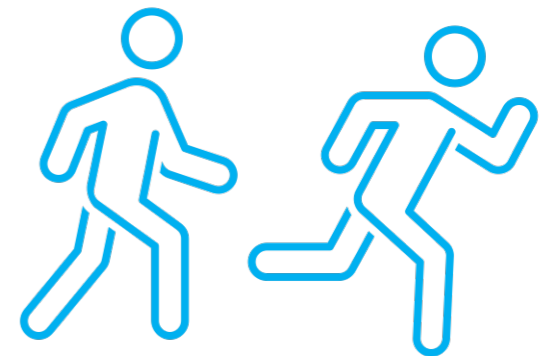
# Healthy Ageing 101: Advice from an Olympian Doctor on Optimizing our Diets and Exercise to Enable #HealthyAgeing

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# Things that Enable Healthy Ageing

- A Balanced Diet
- Avoiding Smoking
- Drinking Alcohol in Moderation
- Regular Physical Exercise
- Regular Sleep and Rest
- Managing Stress
- Getting Recommended Vaccinations
- Maintaining Social Networks
- Staying in Contact with your Health Care Provider





# Background

# The scope of the problem

## Physical Inactivity is

- the fourth greatest risk factor for early mortality
- the greatest modifiable risk factor for Alzheimer's Dementia
- associated with more hospitalizations, longer stays, and more hospital-associated functional decline
- ...and the trends worsen as we age, as we slowly but surely become more and sedentary, less functionally independent and less mobile ...

# Age = reductions in

Maximal Oxygen Uptake  
Maximal Heart Rate  
Strength  
Flexibility  
Proprioception  
Muscle mass  
Balance



What if aging was NOT an inevitable decline?



Photo Credit: @alexrotas



**Emmanuel Stamatakis**

@M\_Stamatakis

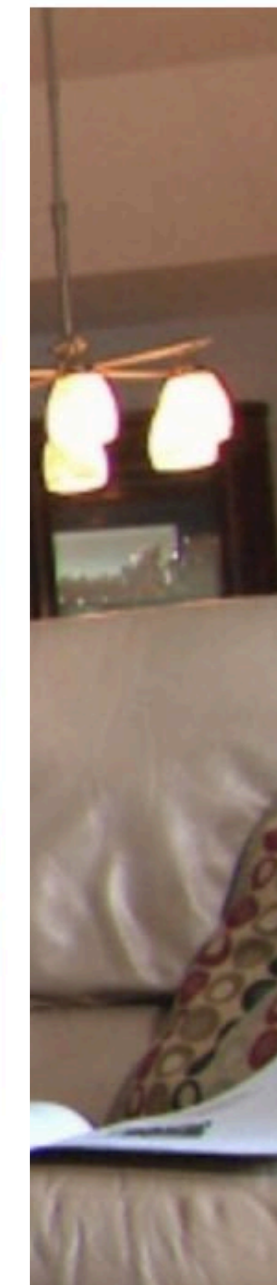
Physical activity is THE miracle cure says BMJ Editor in Chief [@fgodlee](#); & clinicians should be THE role models. Teaching comprehensive physical activity skills training in medical education is the way forward [@BJSMBMJ](#)



The miracle cure

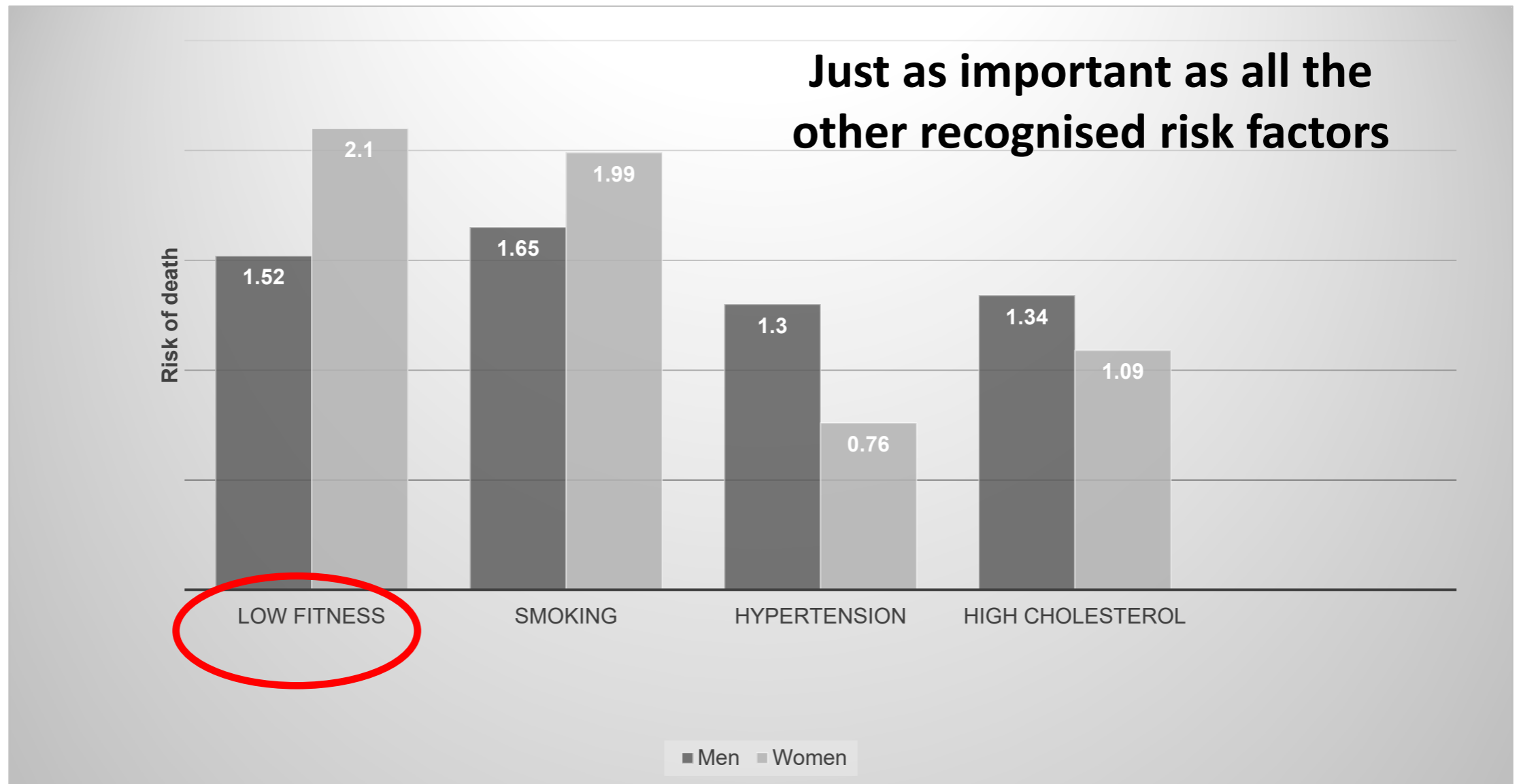
As miracle cures are hard to come by, any claims that a treatment is 100% safe and effective must always be viewed with intense scepticism. There is perhaps one ...

[bmj.com](#)



s were

# Independent risk factor for all-cause mortality



Blair, S. N., J. B. Kampert, et al. (1996). JAMA: 276(3): 205-210.

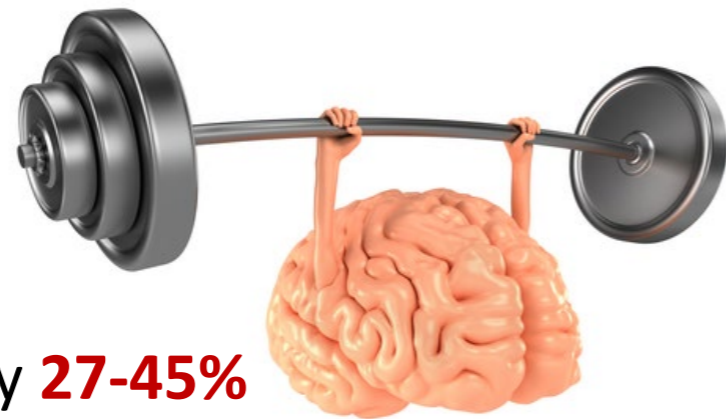


# Physical Activity As “Medicine”

- Alcohol dependence
- Anxiety
- Asthma
- Chronic back pain
- Cancer
- COPD
- Coronary artery disease
- Cystic fibrosis
- Dementia
- Depression
- Type 1 diabetes
- Type 2 diabetes
- Dizziness and balance disorders
- Gastrointestinal diseases
- Heart failure
- Heart rhythm disturbances
- Hypertension
- Kidney disease
- Lipids
- Metabolic syndrome
- Multiple sclerosis
- Obesity
- Osteoarthritis
- Osteoporosis
- Pain
- Parkinson’s
- PAD
- Post-polio
- Rheumatoid Arthritis
- Schizophrenia
- Spinal cord injury
- Stress
- Stroke



# Regular physical activity ↓ risk of premature death by **31-50%**



- ↓ Risk of **stroke** by **27-45%**
- ↓ risk of developing **Alzheimer's** by **40%**
- ↓ **depression** as effectively as Prozac or behavioral therapy.



- ↓ mortality and the risk of recurrent **breast cancer** by **50%**
- ↓ risk of **colon cancer** by **30-60%**



- ↓ incidence of **diabetes** by **25-58%**

↑ surgical outcomes



- ↓ risk of **cardiovascular disease** by **33-50%**
- ↓ incidence of **high blood pressure** by **33-60%**

Greater self-efficacy

Better  
Quality  
of Life

Improved  
cognition

MORE PERSONAL INDEPENDENCE





MORE YEARS

• *without disability*

# Training adaptations occur at any age



# National Physical Activity Guidelines

- 150 minutes of moderate (or 75 minutes of vigorous) physical activity per week
- Strength and balance training 1-2 times per week

## Canadian Physical Activity Guidelines

FOR OLDER ADULTS - 65 YEARS & OLDER

### Guidelines



To achieve health benefits, and improve functional abilities, adults aged 65 years and older should accumulate at least 150 minutes of moderate- to vigorous-intensity aerobic physical activity per week, in bouts of 10 minutes or more.



It is also beneficial to add muscle and bone strengthening activities using major muscle groups, at least 2 days per week.



Those with poor mobility should perform physical activities to enhance balance and prevent falls.

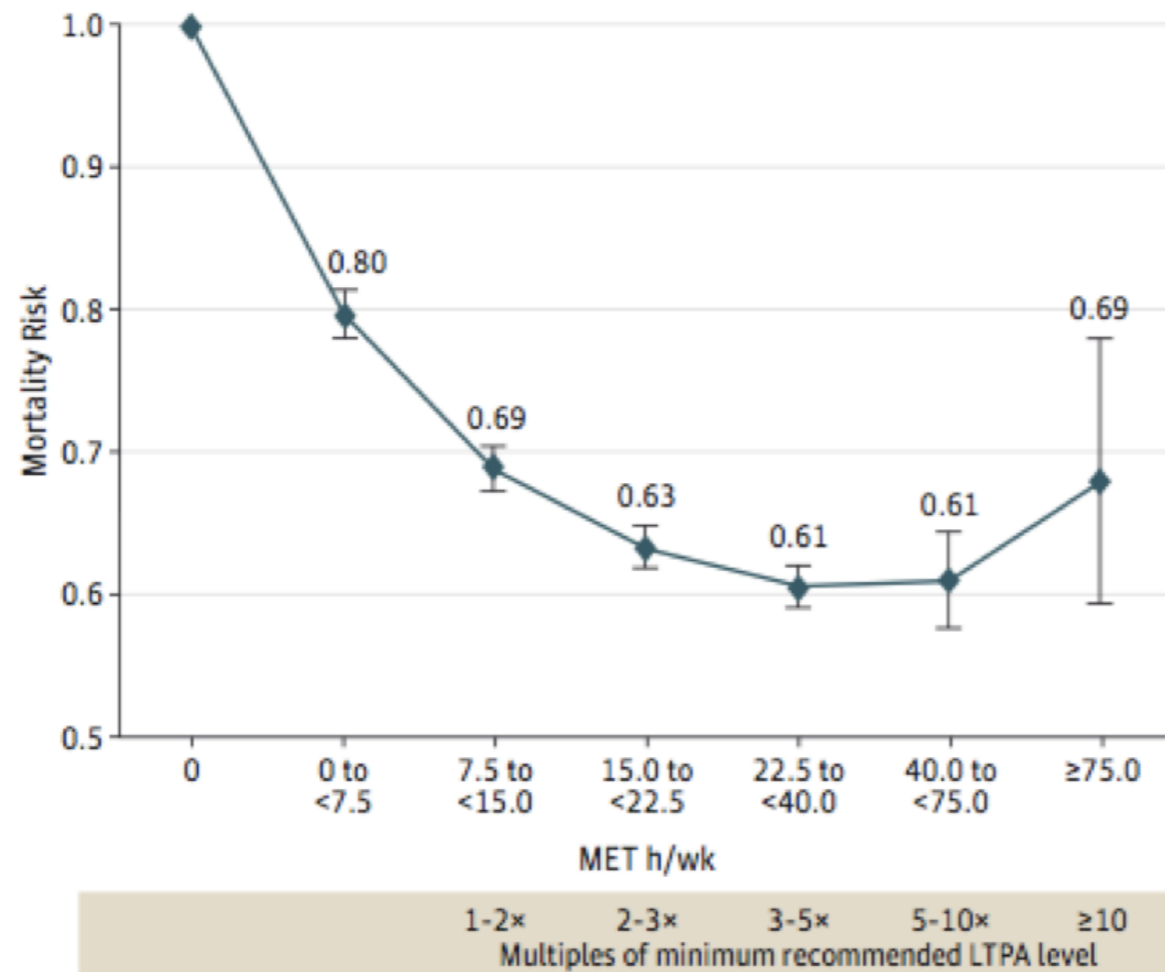


More physical activity provides greater health benefits.



# Physical Activity and Mortality

Figure. Hazard Ratios (HRs) and 95% CIs for Leisure Time Moderate- to Vigorous-Intensity Physical Activity and Mortality



# Absolute Contraindications to starting an exercise program

1. Recent significant change in the resting ECG suggesting significant ischemia, recent MI (within 2 days) or other acute cardiac event
2. Unstable angina
3. Uncontrolled cardiac dysrhythmias causing symptoms or hemodynamic compromise
4. Symptomatic severe aortic stenosis
5. Uncontrolled symptomatic heart failure
6. Acute pulmonary embolus or pulmonary infarction
7. Acute myocarditis or pericarditis
8. Suspected or known dissecting aneurysm
9. Acute systemic infection, accompanied by fever, body aches, or swollen lymph glands





# Physical Activity in hospitals

Studies have show that:  
 24% of patients had no documented ambulation during 7 days

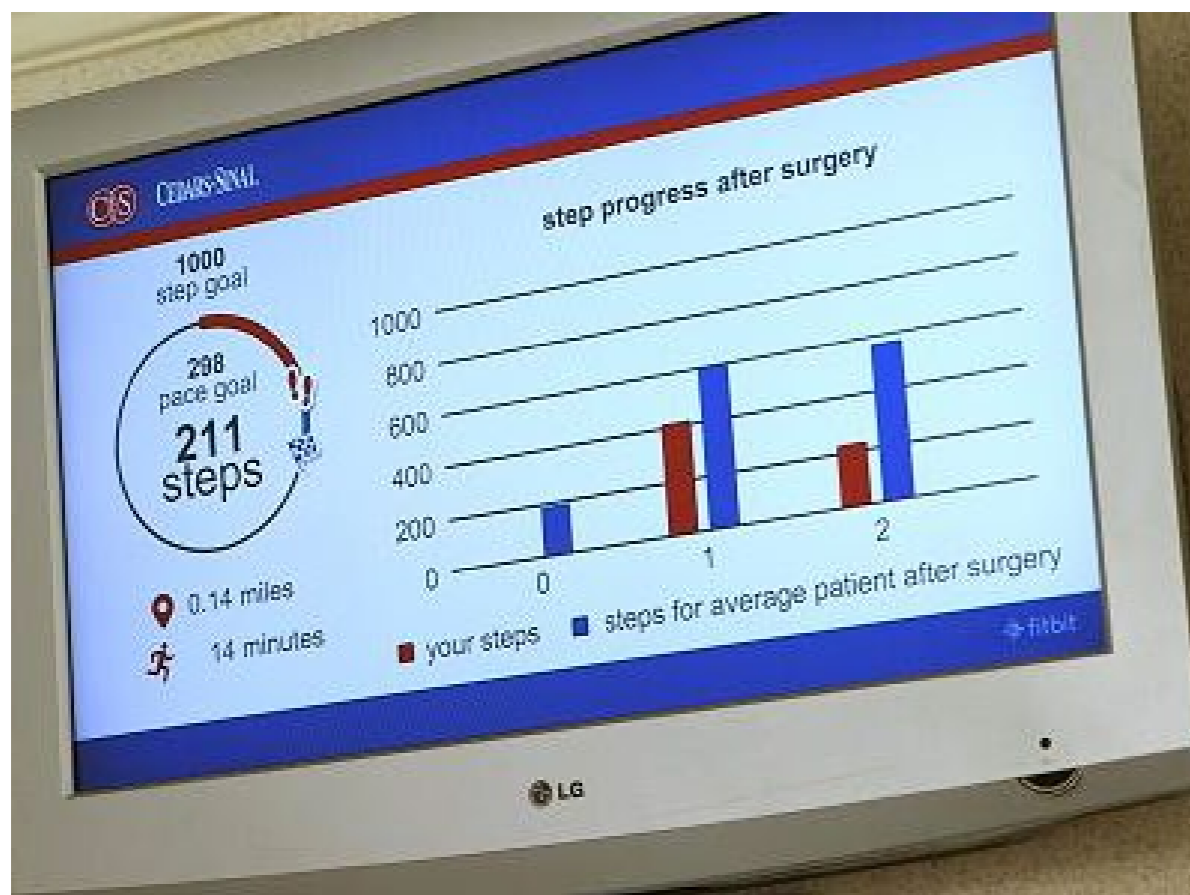
72.9% of patients considered able to walk did not walk at all

83% of patient time is spent lying in bed.

#end  paralysis  
 get up get dressed be active

Medicine (approved name) SIT UP in chair (30 mins 6 Times/Day)		MORN	2m
Dose	Route	10Am	Am
Start date 19/7/17	Stop date	NOON	hr
Presc. sig.	Authorisation section signed?	EVE	4Pm
DHx	Ph. sig.	NIGHT	6m
Ph. supply		9Pm	LP
Additional information only to be entered here			
Medicine (approved name) Get Dressed in own clothes		MORN	
Dose	Route	NOON	
Start date 19/7/17	Stop date	EVE	
Presc. sig.	Authorisation section signed?	NIGHT	
DHx	Ph. sig.		
Ph. supply			
Additional information only to be entered here			
Medicine (approved name) WALK on WARD 10 mins 6 times daily		MORN	
Dose	Route	10P	
Start date 19/7/17	Stop date	NOO	
		EVE	

# Physical Activity in hospitals



**A Los Angeles hospital is using Fitbits to help patients go home sooner**  
Patients who reach 1,000 steps a day are typically ready to be discharged sooner than those who don't.

[cnbc.com](http://cnbc.com)

# Physical Activity and Good Nutrition go hand in hand

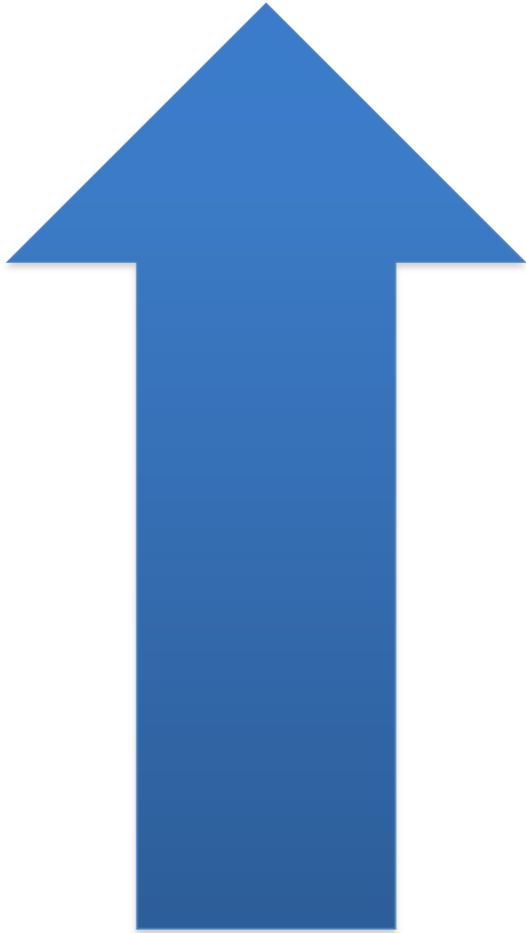


# How to Achieve A Balanced Diet?



- Choose vegetables and fruits, whole grain foods and protein-rich foods at every eating occasion
- Choose foods with healthy fats instead of saturated fats
- Limit your consumption of highly processed foods. If you choose these foods, eat them less often and in small amounts
- Prepare meals and snacks using ingredients that have little to no added sodium, sugars or saturated fats
- Make water your drink of choice over sugary drinks

# Be sure to get enough....



B12

Vitamin D

Antioxidant vitamins

Calcium

Protein

# Long term Athlete Health





# Post menopause

You are  
never too old  
to set another goal  
or to dream a  
new dream.

C S Lewis

Hildegund Buerkle, Germany,  
racing to a new 100m world  
record, 80-84 year age band,  
at the European Veterans Athletics  
Championships, Turkey, 2014.

AlexRotasPhotography.  
#PositiveAge





# Resources

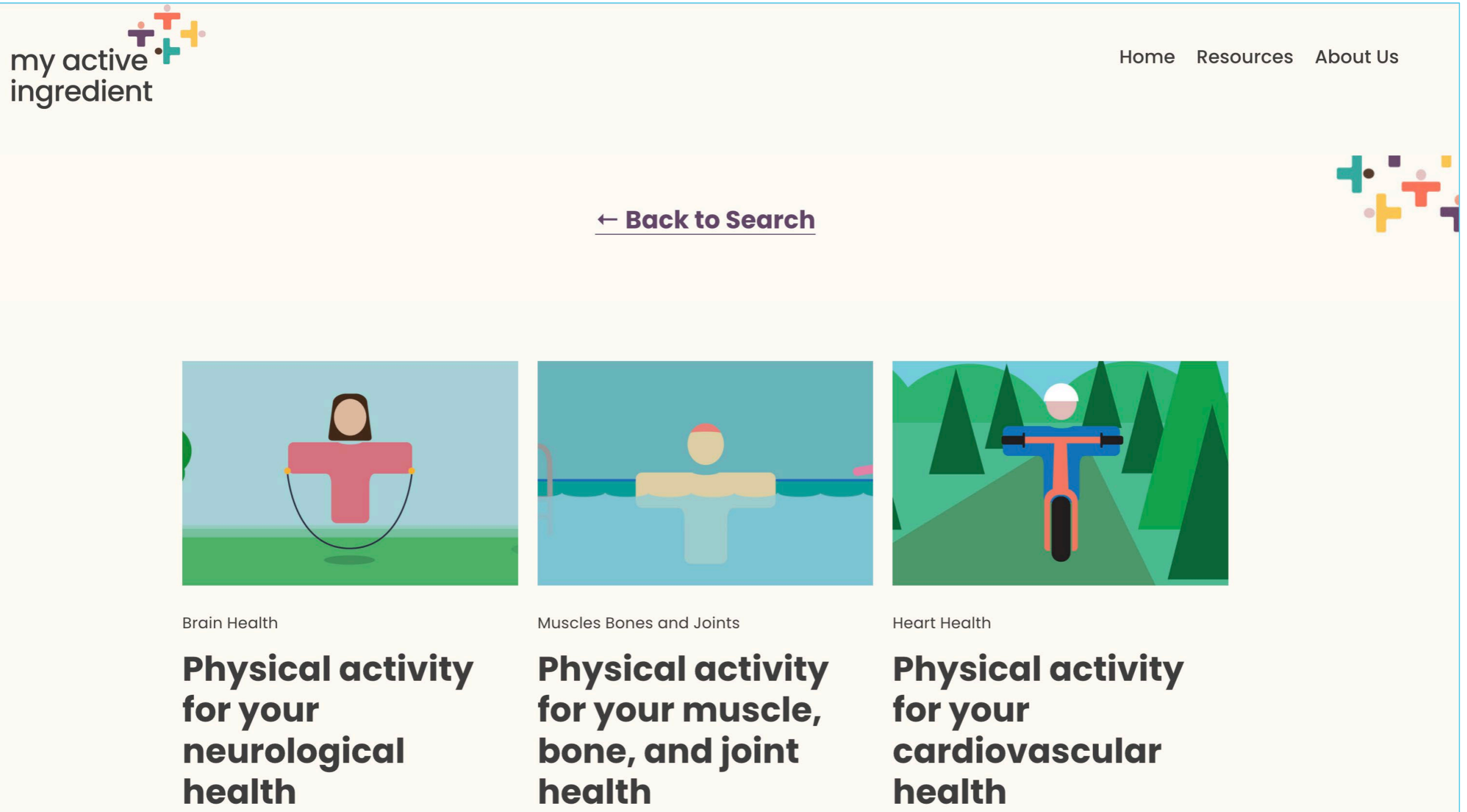
# RETURN TO HEALTH & PERFORMANCE LAB

Our Vision is to develop, implement and evaluate effective physical activity interventions in clinical settings for **optimal patient outcomes**, and advance our understanding of the **long-term health-related impacts of physical activity and sport**



# My Active Ingredient

<https://www.myactiveingredient.org/resources?category=Older%20Adults>



The screenshot shows the website's interface. At the top left is the logo 'my active ingredient' with a colorful plus sign icon. At the top right are navigation links: 'Home', 'Resources', and 'About Us'. Below the navigation is a search bar with a magnifying glass icon and a dropdown menu showing 'Older Adults'. A link '[← Back to Search](#)' is positioned below the search bar. The main content area features three cards, each with an illustration and a title:

- Brain Health:** Illustration of a person jumping rope. Title: **Physical activity for your neurological health**
- Muscles Bones and Joints:** Illustration of a person swimming. Title: **Physical activity for your muscle, bone, and joint health**
- Heart Health:** Illustration of a person riding a bicycle. Title: **Physical activity for your cardiovascular health**

# Resources

- Falls Prevention Classes

[WWW.ONTARIO.CA/PAGE/EXERCISE-AND-FALLS-PREVENTION-PROGRAMS](http://WWW.ONTARIO.CA/PAGE/EXERCISE-AND-FALLS-PREVENTION-PROGRAMS)

- Canadian Diabetes Association Resistance Training

[WWW.DIABETES.CA/DIABETES-AND-YOU/HEALTHY-LIVING-RESOURCES/EXERCISE/RESISTANCE-EXERCISES-PLAN](http://WWW.DIABETES.CA/DIABETES-AND-YOU/HEALTHY-LIVING-RESOURCES/EXERCISE/RESISTANCE-EXERCISES-PLAN)

- YMCA and other community initiatives

- Getting over your barriers

[MAKEYOURDAYHARDER.COM](http://MAKEYOURDAYHARDER.COM)

# STAYING ACTIVE AS YOU AGE

INFORMATION FOR OLDER ADULTS, FAMILIES,  
AND CAREGIVERS



READ THIS PAMPHLET TO LEARN:

- Why Physical Activity is Important.
- What Exercises are Appropriate for You.
- How to Start Exercising.

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