Addressing the biggest public health challenge of the 21st century - Andrew Murray, MACP

Increasing physical activity helps prevent and treat Non-Communicable Diseases.

Dr Andrew Murray, GP, Edinburgh University

Please be upstanding!

This conference is standing friendly. Please feel free to take standing and stretch breaks at the back of the room and break up that sedentary time!

Regular physical activity
Take regularly for improved longevity, physical and mental health.

@docandrewmurray
Where are we now?

Global Life Expectancy
-10,000 BCE - 2003

Source: Indar M. Govani. "The improving state of our world." Washington, DC: Cato Institute, 2007. 36. Life expectancy is believed to have been 25-30 years prior to 1820. Age 25 is selected as an average.
Major Health Trends (certainties)
Evidence is consistent, and not ambiguous

Graphic- N Stephens 2015
# Risk reduction associated with physical activity

<table>
<thead>
<tr>
<th>Chronic condition</th>
<th>Risk reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>All cause mortality</td>
<td>30% risk reduction</td>
</tr>
<tr>
<td>CVD, stroke</td>
<td>20-35% reduction</td>
</tr>
<tr>
<td>Diabetes</td>
<td>30-40% reduction</td>
</tr>
<tr>
<td>Hip fractures</td>
<td>36-68% reduction</td>
</tr>
<tr>
<td>Colon cancer</td>
<td>30% reduction</td>
</tr>
<tr>
<td>Breast cancer</td>
<td>20% reduction</td>
</tr>
<tr>
<td>Loss of function</td>
<td>30% reduction</td>
</tr>
<tr>
<td>Depression/dementia</td>
<td>20-30% reduction</td>
</tr>
</tbody>
</table>
Fat and fit beats thin and unfit!

![Risk of CVD mortality diagram]

- Low, Moderate, High
- 18.5 ≤ BMI < 25.0
- 25.0 ≤ BMI < 30.0
- 30.0 ≤ BMI < 35.0

*P for trend* < 0.001

*P for trend* < 0.001

*P for trend* < 0.002
Physical Activity: What Should You Do?

For a healthy heart and mind: Be Active
- VIGOROUS: Run
- MODERATE: Walk

To keep your muscles, bones and joints strong: Build Strength
- Yoga
- Tai Chi
- Carry Bags

To reduce your chance of falls: Improve Balance
- Yoga
- Tai Chi
- Bowls

Minutes per week: 75 or 150 VIGOROUS or MODERATE INTENSITY

Break up sitting time: 2 DAYS PER WEEK

Something is better than nothing. Start small and build up gradually: just 10 minutes at a time provides benefit.

MAKE A START TODAY: It’s never too late!

Physical activity
for children and young people
(5–18 Years)

- Builds confidence & social skills
- Develops co-ordination
- Improves concentration & learning
- Strengthens muscles & bones
- Improves health & fitness
- Maintains healthy weight
- Improves sleep
- Makes you feel good

Be physically active

Aim for at least 60 minutes every day.

- Spread activity throughout the day
- All activities should make you breathe faster & feel warmer

Include muscle and bone strengthening activities 3 times per week:

- Play
- Run/walk
- Bike
- Active travel
- Swim
- Skate
- Sport
- PE
- Skip
- Climb
- Workout
- Dance

Sit less

- Find ways to help all children and young people accumulate at least 60 minutes of physical activity every day

Move more

Physical activity for early years (birth – 5 years)
Active children are healthy, happy, school ready and sleep better

- Builds relationships & social skills
- Maintains healthy weight
- Contributes to brain development & learning
- Improves sleep
- Develops muscles & bones
- Encourages movement & co-ordination

Every movement counts

Aim for at least 3 Hours across everyday

Move more. Sit less. Play together

NON COMMUNICABLE DISEASE PREVENTION:
Investments that Work for Physical Activity

A complementary document to
The Toronto Charter for Physical Activity: A Global Call to Action

Physical inactivity is the fourth leading cause of deaths due to non-communicable disease (NCDs) worldwide - heart disease, stroke, diabetes and cancers - and each year contributes to over three million preventable deaths. Physical inactivity is related (directly and indirectly) to the other leading risk factors for NCDs such as high blood pressure, high cholesterol and high glucose levels; and, to the recent striking increases in childhood and adult obesity, not only in developed countries but also in many developing countries. Substantial scientific evidence supports the importance of stakeholder consultation and calls for action in four key areas consistent with the WHO Global Strategy for Diet and Physical Activity: 1) national policy; 2) policies and regulations; 3) programs and environments; and 4) partnerships.

There is strong evidence to guide the implementation of effective approaches to increase physical activity.
Investments that work

1. Whole of school programmes - early input to produce active ageing!!
2. Transport policies and systems that prioritise walking, cycling and public transport
3. Urban design that provides for equitable and safe access for recreational physical activity

4. **Physical activity and NCD prevention integrated into health care systems**

5. Public education, including mass media to raise awareness and change social norms on physical activity
6. Community-wide programs that mobilize and integrate community engagement and resources
7. Sports systems and programs that promote ‘sport for all’ and encourage participation across the life span.
How can health practitioners increase physical activity

• Embed it into primary care

• Embed it into secondary care

• Embed it into Health Education

• Get champions to promote physical activity for health
Embed it into the each consult

• Ask the question??

• “How many days a week do you do physical activity, and for how long” ??150 mins

• Assess
• Advice
• (Intervention)
• Direct to resources

“What fits your busy schedule better, exercising one hour a day or being dead 24 hours a day?”
Physical Activity Screening Question (PASQ)

1. In the past week, on how many days have you done a total of 30 minutes or more of physical activity?

Physical activity may include walking or cycling for recreation or to get to and from places, gardening, exercise or sport which lasted for at least 10 minutes. It should not include housework or physical activity as part of your job.

0 1 2 3 4 5 6 7

Positive reinforcement

2. If 4 days or less, have you done at least 2½ hours (150 mins) of physical activity over the course of the past week?

NO

YES

Positive reinforcement

3. Are you interested in increasing your level of physical activity?

NO

YES

Literature

Brief Advice (prompt)
MYTHBUSTING

• Too old to exercise
  • Too Fat to exercise
  • I’m diabetic, have OA, COPD, high BP, etc etc

• Regular physical activity actually helps treat these conditions
Life expectancy trends
-prevent as well as treat NCD’s!!!
Resources- for us

• 23 and a half hours

• NHS Health scotland- physical activity portal

• World Health Organisation

• Gapminder website
Call to action

- BE ACTIVE OURSELVES
- Spread the word- colleagues- be at the vanguard
- Think PA everytime
- Ask the question, and brief advice/ intervention
Thanks

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