Exercise Right: Tips about Exercise, Aging and Your Health

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Current Killers. What do we know?

Figure 1: Leading underlying causes of death by sex, 2013

1. Coronary heart disease (I20–I25) 11,016
   - Men: 8,750
   - Women: 3,266

2. Dementia and Alzheimer disease (F01, F03, G30) 3,656
   - Men: 7,277
   - Women: 6,368

3. Cerebrovascular disease (I60–I69) 4,181
   - Men: 4,181
   - Women: 6,368

4. Lung cancer (C33, C34) 4,995
   - Men: 3,222
   - Women: 2,890

5. Chronic obstructive pulmonary disease (COPD) (J40–J44) 3,572
   - Men: 2,890
   - Women: 3,200

### Figure 2: Leading underlying causes of death in Australia by age group, 2011–2013

<table>
<thead>
<tr>
<th>Age Group</th>
<th>1st Cause</th>
<th>2nd Cause</th>
<th>3rd Cause</th>
<th>4th Cause</th>
<th>5th Cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age &lt; 1</td>
<td>Other Perinatal &amp; congenital</td>
<td>Other SIDS</td>
<td>Other Ill-defined causes</td>
<td>External Accidental threats to breathing</td>
<td>Other Selected metabolic disorders</td>
</tr>
<tr>
<td>Age 1–14</td>
<td>External Land transport accidents</td>
<td>External Perinatal &amp; congenital</td>
<td>Cancer Brain cancer</td>
<td>External Accidental poisoning</td>
<td>Other Cerebral palsy &amp; related</td>
</tr>
<tr>
<td>Age 15–24</td>
<td>External Suicide</td>
<td>External Land transport accidents</td>
<td>External Accidental poisoning</td>
<td>External Assault</td>
<td>External Event of undetermined intent</td>
</tr>
<tr>
<td>Age 25–44</td>
<td>External Suicide</td>
<td>External Accidental poisoning</td>
<td>External Land transport accidents</td>
<td>Circulatory Coronary heart disease</td>
<td>Cancer Breast cancer</td>
</tr>
<tr>
<td>Age 45–64</td>
<td>Circulatory Coronary heart disease</td>
<td>Cancer Lung cancer</td>
<td>Cancer Breast cancer</td>
<td>Cancer Colorectal cancer</td>
<td>External Suicide</td>
</tr>
<tr>
<td>Age 65–74</td>
<td>Circulatory Coronary heart disease</td>
<td>Cancer Lung cancer</td>
<td>Respiratory COPD</td>
<td>Circulatory Cerebrovascular disease</td>
<td>Cancer Colorectal cancer</td>
</tr>
<tr>
<td>Age 75–84</td>
<td>Circulatory Coronary heart disease</td>
<td>Circulatory Cerebrovascular disease</td>
<td>Other Dementia &amp; Alzheimer disease</td>
<td>Cancer Lung cancer</td>
<td>Respiratory COPD</td>
</tr>
<tr>
<td>Age 85–94</td>
<td>Circulatory Coronary heart disease</td>
<td>Other Dementia &amp; Alzheimer disease</td>
<td>Circulatory Cerebrovascular disease</td>
<td>Respiratory COPD</td>
<td>Circulatory Heart failure</td>
</tr>
<tr>
<td>Age 95+</td>
<td>Circulatory Coronary heart disease</td>
<td>Other Dementia &amp; Alzheimer disease</td>
<td>Circulatory Cerebrovascular disease</td>
<td>Circulatory Heart failure</td>
<td>Respiratory Influenza &amp; pneumonia</td>
</tr>
</tbody>
</table>

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### Bigger Picture

- **Self-Assessed Health Status**
  - **Excellent**
  - **Good**
  - **Poor**

- **% Response**
  - Green: Highly Active
  - Red: Inactive
  - Orange: Obese
### Table 1: Risk factors for developing CVD, type 2 diabetes or CKD

<table>
<thead>
<tr>
<th>Behavioural risk factors</th>
<th>CVD</th>
<th>Type 2 diabetes</th>
<th>CKD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco smoking</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Insufficient physical activity</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Excessive alcohol consumption</td>
<td>✔</td>
<td>✔</td>
<td>?</td>
</tr>
<tr>
<td>Inadequate fruit and vegetable consumption</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Biomedical risk factors</th>
<th>CVD</th>
<th>Type 2 diabetes</th>
<th>CKD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overweight and obesity</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>High blood pressure</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Dyslipidaemia</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Impaired glucose regulation</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
</tbody>
</table>
Impact of Physical Inactivity to Gross Costs Across Common Medical Conditions (2006/07) ($millions)

- CHD ($371.5 = 25%)
- Stroke ($162.4 = 11%)
- Type II Diabetes ($210.7 = 14%)
- Breast Cancer ($42.25 = 3%)
- Falls ($468.7 = 31%)
- Depression ($177.3 = 12%)
- Colon Cancer ($61.4 = 4%)
- Falls ($468.7 = 31%)

Total = $1.5 billion
What is the rate of our demise?

Why not this?
Why does aging coincide with sedentary living?

Figure 2.4: Inactive or insufficiently active, by age and sex, 2011–12

Source: AIHW analysis of unpublished ABS ‘Australian Health Survey, 2011–12 (Core component)’; Table C3.
Exercise Training

What do we know?

Australia's Physical Activity and Sedentary Behaviour Guidelines

18-64 years

• Doing any physical activity is better than doing none. If you currently do no physical activity, start by doing some, and gradually build up to the recommended amount.

• Be active on most, preferably all, days every week.

• Accumulate 150 to 300 minutes (2 ½ to 5 hours) of moderate intensity physical activity

Or

75 to 150 minutes (1 ¼ to 2 ½ hours) of vigorous intensity physical activity, or an equivalent combination of both moderate and vigorous activities, each week.

• Do muscle strengthening activities on at least 2 days each week.

• Minimise the amount of time spent in prolonged sitting.

• Break up long periods of sitting as often as possible.

You can be ‘active’, but also highly sedentary!

The ‘Active’ Couch Potato

<table>
<thead>
<tr>
<th>Time (minutes)</th>
<th>Activity Intensity</th>
<th>Energy Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morning</td>
<td>Moderate/vigorous</td>
<td>Very High</td>
</tr>
<tr>
<td>Night</td>
<td>Light</td>
<td>Very Low</td>
</tr>
<tr>
<td>Sedentary</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mean mod-to-vigorous time = 31 mins/day
% Waking hours spent in Sedentary = 71%
Exercise Training

What do we know?

Australia’s Physical Activity and Sedentary Behaviour Guidelines

>64 years

• Older people should do some form of physical activity, no matter what their age, weight, health problems or abilities.

• Older people should be active every day in as many ways as possible, doing a range of physical activities that incorporate fitness, strength, balance and flexibility.

• Older people should accumulate at least 30 minutes of moderate intensity physical activity on most, preferably all, days.

• Older people who have stopped physical activity, or who are starting a new physical activity, should start at a level that is easily manageable and gradually build up the recommended amount, type and frequency of activity.

• Older people who continue to enjoy a lifetime of vigorous physical activity should carry on doing so in a manner suited to their capability into later life, provided recommended safety procedures and guidelines are adhered to.
What You Need To Do

See your doctor

Request medical tests

Set realistic goals

Dietician

Podiatrist? Physiotherapist?

Accredited Exercise Physiologist (AEP)

Request allied health referrals
Aging Can Be Active & Healthy!

What is your decision?

John Turner, age 67