Cancer is the leading cause of death in Australia. Sadly, nearly 48,000 Australians will die from cancer in 2017.
As it turns out, you might have more control than you thought when it comes to reducing your risk of cancer.
A research team at QIMR Berghofer recently led an Australian-first study that found that **38% of cancer deaths in Australia each year are potentially preventable.**

The findings mean that about 16,700 cancer deaths each year could be potentially avoided through lifestyle changes.

**IF YOU WOULD LIKE TO REVIEW THE ABSTRACT OF THE STUDY, PLEASE CLICK HERE**
The team analysed data from the Australian Institute of Health and Welfare and the Australian Bureau of Statistics to determine how many cancer deaths each year are caused by preventable lifestyle factors.

WHAT DID WE FIND OUT?

People can help reduce their risk of developing and dying from cancer. We analysed the impact of 20 lifestyle and environmental risk factors (under eight broad groups) that are known to cause cancer.
## CANCER CAUSES

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>CAUSALLY ASSOCIATED CANCERS*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alcohol consumption</strong></td>
<td>Oral cavity and pharynx, oesophagus (squamoues cell carcinoma), stomach, colorectum, liver, breast (pre- and post-menopausal)</td>
</tr>
<tr>
<td><strong>Diet</strong></td>
<td></td>
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<tr>
<td>Low intake of dietary fibre</td>
<td>Colorectum</td>
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<tr>
<td>Low intake of fruit</td>
<td>Oral cavity and pharynx, larynx, lung</td>
</tr>
<tr>
<td>Low intake of non-starchy vegetables</td>
<td>Oral cavity and pharynx, larynx</td>
</tr>
<tr>
<td>High intake of red and processed meat</td>
<td>Colon, rectum</td>
</tr>
<tr>
<td><strong>Infections</strong></td>
<td></td>
</tr>
<tr>
<td>Epstein-Barr virus (EBV)</td>
<td>Nasopharynx, Hodgkin's lymphoma, Burkitt's lymphoma</td>
</tr>
<tr>
<td>Hepatitis B virus (HBV)</td>
<td>Liver</td>
</tr>
<tr>
<td>Hepatitis C virus (HCV)</td>
<td>Liver, non-Hodgkin's lymphoma</td>
</tr>
<tr>
<td>Human papillomavirus (HPV)</td>
<td>Oral cavity, oropharynx, anus, vulva, vagina, uterine cervix, penis</td>
</tr>
<tr>
<td><em>Helicobacter pylori</em></td>
<td>Stomach (non-cardia), low-grade B-cell mucosa-associated lymphoid tissue (MALT) gastric lymphoma</td>
</tr>
<tr>
<td>Human immunodeficiency virus, type 1 (HIV-1)</td>
<td>Anus, Kaposi's sarcoma, uterine cervix, non-Hodgkin's lymphoma</td>
</tr>
<tr>
<td>Kaposi's sarcoma herpes virus (KSHV)</td>
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<td>Overweight and obesity</td>
<td>Oesophagus (adenocarcinoma), stomach (cardia), colorectum, liver, gallbladder, pancreas, breast (post-menopausal), endometrium, ovary, prostate (advanced/fatal), kidney, thyroid, multiple myeloma</td>
</tr>
<tr>
<td>Physical inactivity</td>
<td>Colon, breast (post-menopausal), endometrium</td>
</tr>
<tr>
<td>Reproductive/hormonal</td>
<td>Breast (pre- and post-menopausal)</td>
</tr>
<tr>
<td>Breastfeeding (&lt; 12 months amongst Parous women, termed “insufficient”)</td>
<td>Breast, endometrium, ovary</td>
</tr>
<tr>
<td>Menopausal hormone therapy (MHT)</td>
<td>Increases risk: breast, uterine cervix</td>
</tr>
<tr>
<td>Combined oral contraceptives (OCP)</td>
<td>Decreases risk: endometrium, ovary</td>
</tr>
<tr>
<td>Solar ultraviolet (UV) radiation</td>
<td>Melanoma of the skin</td>
</tr>
<tr>
<td>Tobacco smoke</td>
<td>Oral cavity and pharynx, oesophagus, stomach, colorectum, liver, pancreas, larynx, lung, uterine cervix, ovary (mucinous), kidney, bladder, acute myeloid leukaemia</td>
</tr>
<tr>
<td>Tobacco smoking</td>
<td>Lung</td>
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</table>

*These are modifiable causes of cancer as determined by the International Agency for Research on Cancer (IARC) and the World Cancer Research Fund (WCRF)*
By far the biggest preventable cause of cancer deaths in Australia is tobacco smoke. Cancer caused by smoking and passive smoking killed 9,921 people in 2013 (23% of all cancer deaths).

Dietary factors caused 5% of cancer deaths. Poor diet was responsible for 2,329 deaths from cancer.
5% of cancer deaths were caused by being overweight or obese.

5% of cancer deaths were caused by infections.

3% of cancer deaths were caused by solar UV exposure.

2% of cancer deaths were caused by alcohol intake.

0.8% of cancer deaths were caused by insufficient physical activity.

0.4% of cancer deaths were caused by reproductive/hormonal factors.

NOTE: Imagery is illustrative only and not to scale. Totals do not sum to 38% as some factors co-occur to cause cancer.
TIPS FOR STAYING HEALTHY AND REDUCING YOUR CANCER RISK

There are many ways that Australians can make lifestyle choices that promote their health and wellbeing and reduce their cancer risk.
The National Health and Medical Research Council (NHMRC) Australian Guidelines, and other government agencies, provide recommendations for healthy eating and lifestyle. Here are just a few to get you started.

Click the links to learn more.
According to the NHMRC, there is no level of drinking alcohol that can be guaranteed to be completely ‘safe’ or ‘no risk’. The NHMRC guidelines recommend no more than two standard drinks a day to help reduce the lifetime risk of harm from alcohol related disease or injury.

Read the Australian Guidelines
LESS THAN 2 STANDARD DRINKS /DAY

NUMBERS OF STANDARD DRINKS FOUND IN COMMON ALCOHOLIC BEVERAGES

Mid Strength Beer (3.5% alcohol)
- 0.8 285ml glass
- 1.2 425ml glass
- 1 can or stubbie

Wine (9.5-13% alcohol)
- 7 - 8 750ml bottle

Spirits/Pre-Mixed Spirits (37-40%/5/7% alcohol)
- 22 700ml bottle
- 1.1 - 1.5 275ml bottle
- 1.5 - 2.1 375ml can

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According to the Australian Dietary Guidelines, most Aussies get less fibre than they think. The Guidelines recommend consuming at least four to six serves of fibre per day (1 serve = 5g of fibre).

Read the Australian Guidelines
TOP TIPS FOR GETTING MORE FIBRE:
- Eat more fruit and veg.
- Swap meat or chicken for cooked or canned legumes or veggies.
- Swap white flour for wholemeal flour
- Add chopped nuts to dishes.

*3-6 for women/ 4.5-6 for men
According to the Australian Dietary Guidelines, we should eat at least two serves of fruit per day.

Read the Australian Guidelines
TOP TIPS:
- Fruit is most nutritious when eaten fresh, whole and raw.
- Avoid high kilojoule dried fruit.
* Drink fruit juice only occasionally as it is acidic and less nutritious than whole fruit.

NOTE: Imagery is illustrative only and not to scale.
MUM WAS RIGHT, EAT YOUR VEGGIES

According to Australian Dietary Guidelines, adults should eat at least five serves of vegetables per day (75g per serve).

Read the Australian Guidelines
5
SERVES /DAY

1 STANDARD SERVE SIZE EXAMPLES

- 1/2 cup Cooked green or orange vegetables
- 1 cup Green Leafy or Raw Salad
- 1/2 cup Cooked, dried or canned beans, peas or lentils
- 1 Medium Tomato

TOP TIP:
- Starchy vegetables like potato, cassava or sweet corn should only be part of your vegetable intake.
LEAN PROTEIN

According to the Australian Dietary Guidelines, adults should eat 2-3 serves per day of lean meat, poultry, fish, eggs, tofu, nuts, seeds and legumes.

Read the Australian Guidelines
Cooked poultry 80g
Cooked lean red meats 65g
Cooked fish fillet 100g
Cooked dried beans, lentils, chickpeas, split peas or canned beans 150g
Large eggs 2
Tofu 170g
Nuts or seeds 30g

TOP TIP:
- Only eat processed meats and sausages occasionally and in small amounts.

*2-2.5 for women / 2.5-3 for men
MAINTAIN A HEALTHY WEIGHT

According to the Australian Department of Health, overweight is measured at a Body Mass Index (BMI) of 25 or more and obesity is determined at a BMI of 30 or more.

Calculate your BMI
TOP TIPS FOR WEIGHT LOSS:
- Burn more kilojoules than you consume.
- Exercise is key. Get up and get moving.
- Stick to a healthy, well-rounded diet that covers off all of the major food groups.

BMI is your weight (in kilograms) over your height squared (in centimetres).
The more you move, the healthier you’ll be. According to the Australian Department of Health, adults under 64 years should aim for 150 to 300 minutes (2½ to 5 hours) of moderate intensity physical activity per week.

Read the Department of Health Guidelines.
TOP TIPS:
- Any physical activity is better than none. So get up, start slowly and build up to the recommended amount.
- Don’t sit around for long periods of time.
- If you have to sit, get up every now and then to break things up.
Staying out of the sun can reduce your risk of developing melanoma of the skin. The more you go in the sun, the more you increase your chance of skin cancer.

Read how to reduce your risk of skin cancer
TOP TIPS FROM CANCER COUNCIL AUSTRALIA:
- Skip the sun when the SunSmart UV index exceeds 3.
- Keep covered. Wear protective clothing, close-fitting sun glasses and a hat that covers your face, neck and ears.
THANK YOU FOR NOT SMOKING

Smoking is a big no-no. If you stop smoking, or don’t start smoking, you reduce your risk of tobacco related health issues including cancer.

For more information on how to quit, visit QuitNow
IT’S NEVER TOO LATE TO QUIT SMOKING.
- Call the Quitline 13 78 48
- Sign up to QuitCoach, an online tool to help you quit smoking
- Download MyQuitBuddy, a mobile app to support your journey to becoming smoke-free.
- Use patches, gum or medication
- Quit cold turkey
- Try hypnotherapy or acupuncture

IF YOU ARE TRYING TO QUIT:
- Don’t switch to lower nicotine or tar: Weaker cigarettes won’t decrease your risk of smoking-related disease
- Don’t use filters or filter blockers
- Don’t use e-cigarettes or vaping
ACKNOWLEDGEMENTS:

We would like to thank the following agencies that funded QIMR Berghofer’s research:

**National Health and Medical Research Council** (NHRMC; Australia)
www.nhmrc.gov.au

**Cancer Council Australia**
www.cancer.org.au

If you would like additional information about cancer risk, and please contact Cancer Council Australia or Cancer Australia.

**Cancer Council Australia**
www.cancer.org.au

**Cancer Australia**
www.canceraustralia.gov.au

Information related to health guidelines has been sourced from the following agencies:

**Australian Institute of Health and Welfare**
www.aihw.gov.au

**Australian Government Department of Health**
www.health.gov.au

**Australian Government - Quit Now**
www.quitnow.gov.au

**Cancer Council Australia**
www.canceraustralia.gov.au

**National Health & Medical Research Council**
www.nhmrc.gov.au

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