



World
Cancer
Research
Fund International



Analysing research on cancer
prevention and survival

CANCER PREVENTION & SURVIVAL

Summary of global evidence on
diet, weight, physical activity &
what **increases** or **decreases**
your risk of cancer

July 2016 edition



ABOUT **1/3** OF
THE MOST COMMON
CANCERS COULD BE
PREVENTED
THROUGH **DIET, WEIGHT**
AND **PHYSICAL ACTIVITY**

In this booklet we summarise the findings from our Continuous Update Project (CUP) – our ongoing programme to analyse global research on how diet, weight, and physical activity affect cancer risk and survival.

Among experts worldwide it is a trusted, authoritative, scientific resource, which underpins current guidelines and public health policy on cancer prevention around the world.

All the findings from the Continuous Update Project will be used to update the Cancer Prevention Recommendations in 2017.

STRONG
EVIDENCE
ON WHAT
INCREASESES
THE RISK OF
CANCER

BEING OVERWEIGHT OR OBESE

Being overweight or obese **INCREASES** the risk of 11 cancers:

- **BOWEL** (colorectum)
- **BREAST** (post-menopause)
- **GALLBLADDER**
- **KIDNEY**
- **LIVER**
- **OESOPHAGUS**
(oesophageal adenocarcinoma)
- **OVARY**
- **PANCREAS**
- **PROSTATE** (advanced)
- **STOMACH** (cardia)
- **WOMB** (endometrium)



SALT-PRESERVED FOODS

Foods preserved by salting **INCREASE** the risk of cancer of the:

- **STOMACH**

Examples of foods preserved by salting: salt-preserved vegetables and fish, and diverse salt-preserved foods as traditionally prepared in East Asia.



ARSENIC IN DRINKING WATER

Arsenic in drinking water **INCREASES** the risk of cancer of the:

- **BLADDER**
- **LUNG**
- **SKIN**

Water can become contaminated by arsenic as a result of natural deposits present in the earth or from agricultural and industrial practices.



ALCOHOLIC DRINKS

Alcohol INCREASES the risk of cancer of the:

- **BOWEL** (colorectum)
- **BREAST** (both pre- and post-menopause)
- **LIVER**
- **MOUTH, PHARYNX AND LARYNX** (mouth and throat)
- **OESOPHAGUS** (squamous cell carcinoma)
- **STOMACH**



BETA-CAROTENE SUPPLEMENTS

Beta-carotene supplements INCREASE the risk of cancer of the:

- **LUNG**

The evidence is only apparent in smokers taking high-dose beta-carotene supplements.



MATE

Mate INCREASES the risk of cancer of the:

- **OESOPHAGUS** (squamous cell carcinoma)

Mate is a South American herbal tea. The evidence is only apparent when drunk scalding hot through a metal straw.



CANTONESE-STYLE SALTED FISH

Cantonese-style salted fish INCREASES the risk of cancer of the:

- **NASOPHARYNX**



PROCESSED MEAT

Processed meat

INCREASES the risk of cancer of the:

- **BOWEL** (colorectum)
- **STOMACH** (non-cardia)

Examples of processed meat:
bacon, salami and ham.



RED MEAT

Red meat INCREASES
the risk of cancer of the:

- **BOWEL** (colorectum)

Examples of red meat:
beef, pork, lamb and goat.



GLYCAEMIC LOAD

A high glycaemic load **INCREASES** the risk of cancer of the:

- **WOMB** (endometrium)

Glycaemic load is a measure of how much a person's blood sugar is raised by their diet.



AFLATOXINS

Aflatoxins INCREASE the risk of cancer of the:

- **LIVER**

Aflatoxins (toxins produced by certain fungi) are produced by inappropriate storage of food, and are generally an issue related to foods from warmer regions of the world. Foods that may be affected by aflatoxins include: cereals, spices, peanuts, pistachios, Brazil nuts, chillies, black pepper, dried fruit and figs.



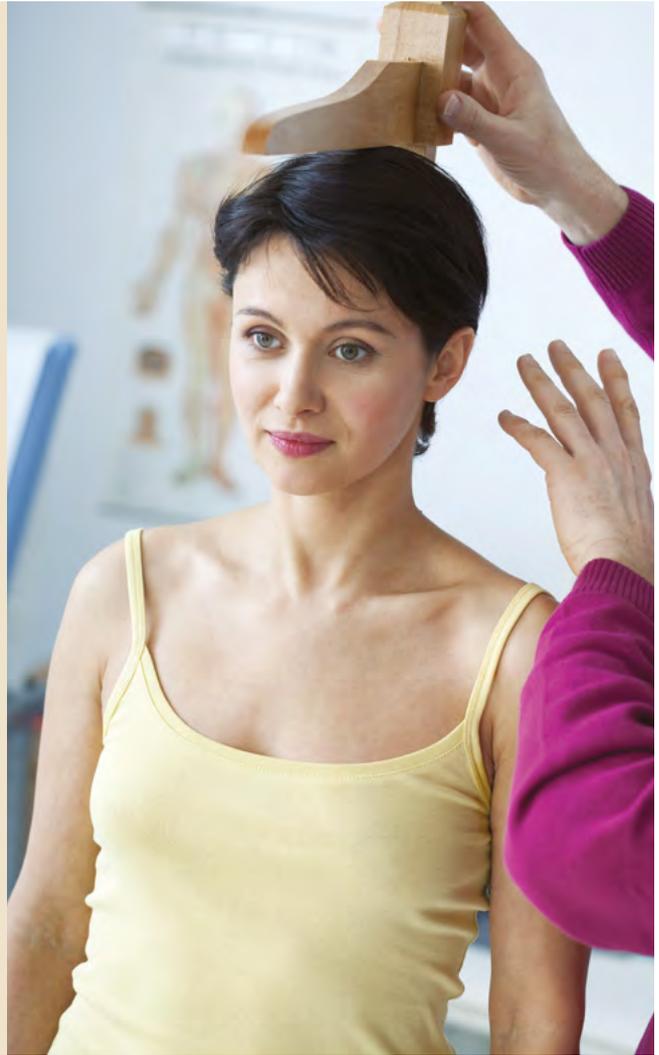
HEIGHT

Being tall **INCREASES** the risk of cancer of the:

- **BOWEL** (colorectum)
- **BREAST** (both pre- and post-menopause)
- **KIDNEY**
- **OVARY**
- **PANCREAS**
- **PROSTATE**

Developmental factors in the womb, and during childhood and adolescence, that influence growth are linked to an increased risk of these cancers (the taller an adult is, the greater the risk).

More research is needed before we can make any recommendations on this finding.



GREATER BIRTH WEIGHT

Greater birth weight **INCREASES** the risk of cancer of the:

- **BREAST** (pre-menopause)

The heavier a baby is at birth, the greater the risk.

More research is needed before we can make any recommendations on birth weight.



STRONG
EVIDENCE
ON WHAT
DECREASES
THE RISK OF
CANCER

NON-STARCHY VEGETABLES

Non-starchy vegetables
DECREASE the risk of
cancer of the:

- **MOUTH, PHARYNX AND LARYNX** (mouth and throat)

Examples of non-starchy vegetables:
broccoli, cabbage, spinach, kale,
cauliflower, carrots, lettuce, cucumber,
tomatoes, leek, swede (rutabaga)
and turnip.



FRUIT

Fruit DECREASES the
risk of cancer of the:

- **LUNG**
- **MOUTH, PHARYNX AND LARYNX** (mouth and throat)



PHYSICAL ACTIVITY

Physical activity
DECREASES the risk
of cancer of the:

- **BOWEL** (colon)
- **BREAST** (post-menopause)
- **WOMB** (endometrium)



DIETARY FIBRE

Foods high in fibre
DECREASE the risk of
cancer of the:

- **BOWEL** (colorectum)

Examples of foods high in dietary fibre:
vegetables, fruit, nuts, seeds and pulses;
along with wholegrain varieties of cereals,
pasta, rice and bread.



BREASTFEEDING

Breastfeeding DECREASES
the risk of cancer of the:

- **BREAST** (both pre-
and post-menopause)



COFFEE

Coffee **DECREASES** the risk of cancer of the:

- **LIVER**
- **WOMB** (endometrium)

Unanswered questions about the coffee findings mean that we can't give advice on consumption levels.



DIETS HIGH IN CALCIUM

Diets high in calcium **DECREASE** the risk of cancer of the:

- **BOWEL** (colorectum)

Unanswered questions on the link between milk and dairy and other cancers mean that we can't give advice on consumption levels.



GARLIC

Garlic DECREASES the risk of cancer of the:

- **BOWEL** (colorectum)



GREATER BODY FATNESS

Greater body fatness DECREASES the risk of cancer of the:

- **BREAST** (pre-menopause)



ALCOHOLIC DRINKS

Alcohol DECREASES the risk of cancer of the:

- **KIDNEY**

The evidence is only apparent when drinking up to 30g (about 2 drinks) a day.

However, there is strong evidence that alcohol is linked to an increased risk of several other cancers: bowel (colorectum); breast (pre- and post-menopause); liver; mouth, pharynx and larynx (mouth and throat); oesophagus; stomach.



**CANCER
PREVENTION
RECOMMENDATIONS**

Our Cancer Prevention Recommendations



Be a healthy weight

Keep your weight as low as you can within the healthy range.



Move more

Be physically active for at least 30 minutes every day, and sit less.



Avoid high-calorie foods and sugary drinks

Limit high-calorie foods (particularly processed foods high in fat or added sugar, or low in fibre) and avoid sugary drinks.



Enjoy more grains, veg, fruit and beans

Eat a wide variety of wholegrains, vegetables, fruit and pulses such as beans.



Limit red meat and avoid processed meat

Eat no more than 500g (cooked weight) a week of red meat, such as beef, pork and lamb. Eat little, if any, processed meat such as ham and bacon.



For cancer prevention, don't drink alcohol

For cancer prevention, it's best not to drink alcohol. If you do, limit alcoholic drinks and follow national guidelines.



Eat less salt and avoid mouldy grains & cereals

Limit your salt intake to less than 6g (2.4g sodium) a day by adding less salt and eating less food processed with salt.

Avoid mouldy grains and cereals as they may be contaminated by aflatoxins.



For cancer prevention, don't rely on supplements

Eat a healthy diet rather than relying on supplements to protect against cancer.



If you can, breastfeed your baby

If you can, breastfeed your baby for six months before adding other liquids and foods.



Cancer survivors should follow our Recommendations (where possible)

After cancer treatment, the best advice is to follow the Cancer Prevention Recommendations. Check with your health professional.

ABOUT THE RESEARCH

What is the Continuous Update Project (CUP)?

The Continuous Update Project is our ongoing programme to analyse global research on how diet, nutrition, physical activity and weight affect cancer risk and survival. Among experts worldwide it is a trusted, authoritative scientific resource, which underpins current guidelines and public health policy on cancer prevention around the world.

How is the Continuous Update Project used?

The findings from the Continuous Update Project are used to update our Cancer Prevention Recommendations, ensuring that everyone – from policymakers and scientists, to members of the public – has access to the most up-to-date information on how to minimise the risk of developing the disease.

How is worldwide research analysed for the Continuous Update Project?

As part of the Continuous Update Project, scientific research on cancer prevention from around the world is collated and added to a database on an ongoing basis and systematically reviewed by a team at Imperial College London.

An independent, world-renowned Expert Panel then evaluate and interpret the evidence to make conclusions based on the body of scientific evidence. Their conclusions form the basis for reviewing, and where necessary revising, our Cancer Prevention Recommendations.

How are the Continuous Update Project findings used to update the Cancer Prevention Recommendations?

Once all the worldwide research on each cancer has been analysed, a review of the Cancer Prevention Recommendations will take place to take account of all of the latest evidence reviewed for our CUP reports. This review is expected to be published in 2017.

So far, new CUP reports have been published on the updated evidence for bladder, breast, colorectal (bowel), endometrial (womb), gallbladder, kidney, liver, oesophageal, ovarian, pancreatic, prostate and stomach cancers; as well as for breast cancer survivors.



When did the Continuous Update Project (CUP) begin?

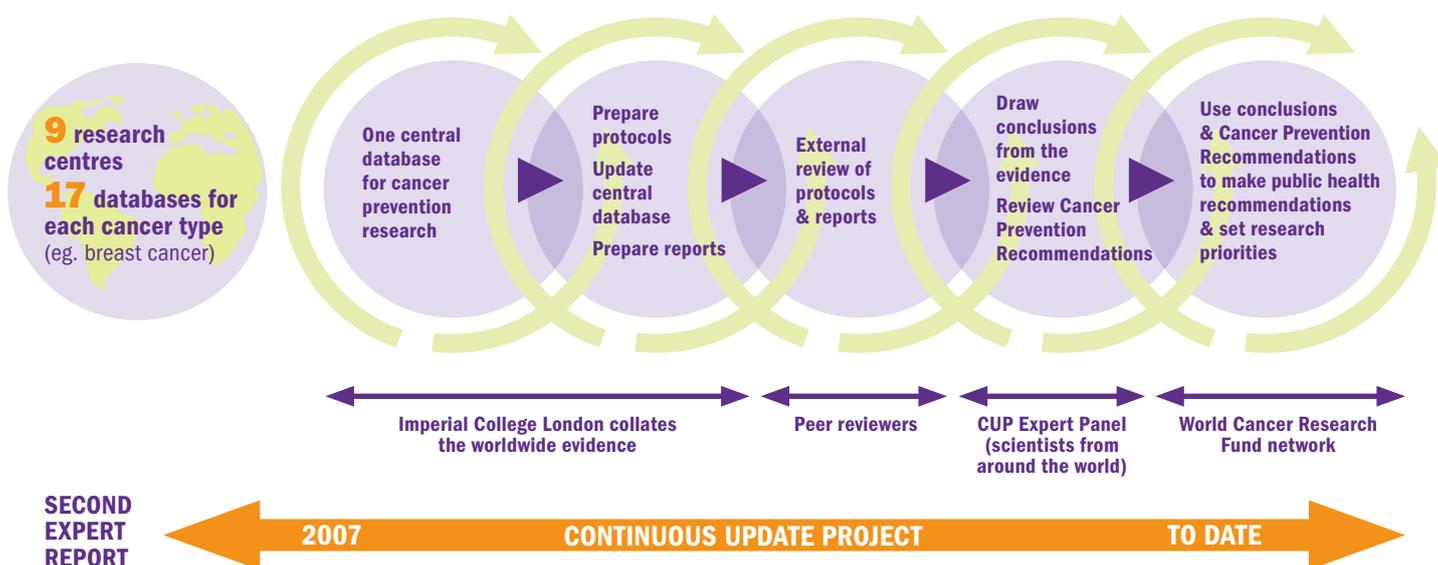
The Continuous Update Project develops the work of our groundbreaking First and Second Expert Reports – published in 1997 and 2007 respectively – which were the first ever comprehensive analyses of worldwide research on diet, nutrition, physical activity and cancer. Unlike these Expert Reports, however, the CUP is an ongoing review and captures new research from around the world as it is published.

Continuous Update Project database

The Continuous Update Project database is being kept up-to-date with all relevant papers from randomised controlled trials and cohort studies published for 17 cancers and breast cancer survivors. The database now contains 9,037 publications on these cancers, including publications from the Second Expert Report. The CUP database is currently available to researchers on request.

Continuous Update Project

The process we use to analyse worldwide research



People behind the research

Continuous Update Project (CUP) Expert Panel

The Continuous Update Project Expert Panel comprises independent, world-renowned scientists in a variety of disciplines from across the world. The Expert Panel's role is to:

- Provide expertise and advice on maintaining a rigorous and independent process.
- Provide an impartial analysis and interpretation of the systematic literature reviews (SLRs) prepared by the research team at Imperial College London.
- Ensure our Cancer Prevention Recommendations are based on the latest available evidence.

Members of the CUP Expert Panel

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DEPUTY CHAIR – **Professor Hilary Powers** PhD RNutr
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World Cancer Research Fund International is the world's leading authority on cancer prevention research related to diet, weight and physical activity.

We are a not-for-profit organisation that leads and unifies a network of cancer prevention charities with a global reach. These charities are based in the USA, UK, Netherlands and Hong Kong.

Our work:

- Our Continuous Update Project (CUP) is the world's largest source of scientific research on cancer prevention and survivorship through diet, weight and physical activity. We analyse this global research so you have access to the best cancer prevention advice in the world.
- We fund high-quality scientific research.
- We work collaboratively with governments and organisations across the world to provide research and support the development of public health policies to reduce the number of preventable cases of cancer and other non-communicable diseases.

About this booklet:

This booklet is updated online (www.wcrf.org) with the latest findings from our Continuous Update Project each time a new report is published. This edition is correct as of July 2016.

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