

Nutri
Scene

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Paying close attention to food and nutrition, physical activity and body fatness can reduce the risk of various cancers.

THERE is now general consensus among scientists, health professionals, and policy-makers on the relationships between food, nutrition, physical activity, body composition, and the risk of cancer. This consensus is based on the totality of evidence available to date. Taking into account all factors, research findings have shown that cancer is, in large part, a preventable disease.

The World Cancer Research Fund (WCRF) expert report on *Food, Nutrition, Physical Activity and the Prevention of Cancer*, was released in November 2007 (view the full report in: www.dietandcancerreport.org/). The Report is intended as a guide to future scientific research, cancer prevention programmes and health policy around the world.

In the write-up of July 20, 2008, I had provided an overview of this WCRF Report. I will now highlight specific sections of the report, especially the recommendations contained therein.

Overview of WCRF recommendations

The recommendations of the WCRF report are based on the best available evidence, which has been identified, collected, analysed, displayed, summarised, and judged systematically, transparently, and independently. The expert panel that prepared the WCRF report emphasised that the setting of recommendations is not and cannot be "an exact science". Nevertheless, the panel believes that its recommendations are as firmly based as the science currently allows, and therefore represent a sound base for developing policy and action.

There are eight general recommendations and two special recommendations. Together, these 10 recommendations are designed to contribute to healthy dietary patterns, healthy ways of life, and general well-being.

The recommendations are followed by passages summarising the evidence that are available to link the particular item or topic with cancer as well as the justifications supporting the recommendations made by the expert panel. Guides showing how people can sustain the

Preventing cancer



It is recommended that people consume less than 500gm of red meat a week.

recommendations are also included.

The WCRF expert panel concluded that the evidence that high body fat and also physical inactivity are causes of a number of cancers, including common cancers, is particularly strong. For this reason, the first three sets of goals and recommendations are designed as a basis for policies, programmes, and choices whose purpose is to maintain healthy body weights and to sustain physical activity, throughout life.

The remaining five general recommendations are not in any order of priority. After the eight general recommendations, there are two special recommendations, one on breastfeeding and one for cancer survivors.

These goals and recommendations are concerned with food and nutrition, physical activity, and body fat. Other factors that modify the risk of cancer outside the remit of this report, such as smoking, infectious agents, radiation, industrial chemicals, and medication, are also highlighted in the report.

Specific cancer prevention recommendations

The following paragraphs summarise the 10 recommendations from the WCRF report. In future write-ups, I will be elaborating on each of these recommendations. These recommendations cover a wide range of topics on food, nutrition and physical activity and will certainly benefit all readers. It might be noted that the Malaysian Dietary Guidelines (details in: www.nutriweb.org.my) are in general agreement with the WCRF recommendations although they are more detailed and geared towards cancer prevention.

Recommendation 1: Body fat

Be as lean as possible within the normal range of body weight.

Public health goals

- Median adult body mass index (BMI) to be between 21 and 23, depending on the normal range for different populations

- The proportion of the population that is overweight or obese to be no more than the current level, or preferably lower, in 10 years

Note: "Normal range" refers to appropriate ranges issued by national governments or the World Health Organization

Personal recommendations

- Ensure that body weight through childhood and adolescent growth projects towards the lower end of the normal BMI range at age 21

- Maintain body weight within the normal range from age 21

- Avoid weight gain and increases in waist circumference throughout adulthood

Recommendation 2: Physical activity

Be physically active as part of everyday life.

Public health goals

- The proportion of the population that is sedentary to be halved every 10 years

- Average physical activity levels (PALs) to be above 1.6

Personal recommendations

- Be moderately physically active, equivalent

to brisk walking, for at least 30 minutes every day

- As fitness improves, aim for 60 minutes or more of moderate, or for 30 minutes or more of vigorous, physical activity every day

- Limit sedentary habits such as watching television

Recommendation 3: Foods and drinks that promote weight gain

Limit consumption of energy-dense foods; avoid sugary drinks.

Public health goals

- Average energy density of diets to be lowered towards 125 kcal per 100 g

- Population average consumption of sugary drinks to be halved every 10 years

Personal recommendations

- Consume energy-dense foods sparingly

- Avoid sugary drinks

- Consume "fast foods" sparingly, if at all

Note: Energy-dense foods are here defined as those with an energy content of more than about 225–275 kcal per 100 g; Sugary drinks principally refers to drinks with added sugars. Fruit juices should also be limited.

Recommendation 4: Plant foods

Eat mostly foods of plant origin.

Public health goals

- Average population consumption of non-starchy vegetables and of fruits to be at least 600 g daily

- Relatively unprocessed cereals (grains) and/or pulses (legumes), and other foods that are a natural source of dietary fibre, to contribute to a population average of at least 25 g non-starch polysaccharide daily

Personal recommendations

- Eat at least five portions/servings (at least 400 g) of a variety of non-starchy vegetables and of fruits every day

- Eat relatively unprocessed cereals (grains) and/or pulses (legumes) with every meal

- Limit refined starchy foods

- People who consume starchy roots or tubers as staples also to ensure intake of sufficient non-starchy vegetables, fruits, and pulses (legumes)

Recommendation 5: Animal foods

Limit intake of red meat and avoid processed meat.

Public health goal

- Average population consumption of red meat to be no more than 300gm a week, very little if any of which to be processed.

Personal recommendation

- People who eat red meat to consume less than 500gm a week, very little if any to be processed

Note: 'Red meat' refers to beef, pork, lamb, and goat from domesticated animals including that contained in processed foods; processed meat refers to meat preserved by smoking, curing or salting, or addition of chemical preservatives, including that contained in processed foods.

Recommendation 6: Alcoholic drinks

Limit alcoholic drinks.

Public health goal

- Proportion of the population drinking

more than the recommended limits to be reduced by one third every 10 years

Personal recommendation

- If alcoholic drinks are consumed, limit consumption to no more than two drinks a day for men and one drink a day for women

Note: One drink contains about 10–15gm of ethanol

Recommendation 7: Preservation, processing, preparation

Limit consumption of salt. Avoid mouldy cereals (grains) or pulses (legumes)

Public health goals

- Population average consumption of salt from all sources to be less than 5gm (2gm of sodium) a day

- Proportion of the population consuming more than 6gm of salt (2.4gm of sodium) a day to be halved every 10 years

- Minimise exposure to aflatoxins from mouldy cereals (grains) or pulses (legumes)

Personal recommendations

- Avoid salt-preserved, salted, or salty foods; preserve foods without using salt

- Limit consumption of processed foods with added salt to ensure an intake of less than 6gm (2.4gm sodium) a day

- Do not eat mouldy cereals (grains) or pulses (legumes)

Note: Methods of preservation that do not or need not use salt include refrigeration, freezing, drying, bottling, canning, and fermentation.

Recommendation 8: Dietary supplements

Aim to meet nutritional needs through diet alone.

Public health goal

- Maximise the proportion of the population achieving nutritional adequacy without dietary supplements

Personal recommendation

- Dietary supplements are not recommended for cancer prevention

Note: It may not always be feasible to meet nutritional needs through diet alone. In some situations of illness or dietary inadequacy, supplements may be valuable.

Special Recommendation 1: Breastfeeding

Mothers to breastfeed; children to be breastfed.

Public health goal

- The majority of mothers to breastfeed exclusively, for six months

Personal recommendation

- Aim to breastfeed infants exclusively up to six months and continue with complementary feeding thereafter

Special Recommendation 2: Cancer survivors

Follow the recommendations for cancer prevention.

Recommendations

- All cancer survivors to receive nutritional care from an appropriately trained professional

- If able to do so, and unless otherwise advised, aim to follow the recommendations for diet, healthy weight, and physical activity

Note: Cancer survivors are people who are living with a diagnosis of cancer, including those who have recovered from the disease.

■ *NutriScene is a fortnightly column by Dr Tee E Siong, who pens his thoughts as a nutritionist with over 30 years of experience in the research and public health arena. For further information, e-mail starhealth@thestar.com.my. The information provided is for educational and communication purposes only and it should not be construed as personal medical advice. Information published in this article is not intended to replace, supplant or augment a consultation with a health professional regarding the reader's own medical care. The Star does not give any warranty on accuracy, completeness, functionality, usefulness or other assurances as to the content appearing in this column. The Star disclaims all responsibility for any losses, damage to property or personal injury suffered directly or indirectly from reliance on such information.*