European Code Against Cancer, 5th Edition

14 ways you can help prevent cancer

Fact Sheet

Recommendation 3 for Individuals on Overweight and obesity

Take action to avoid or manage overweight and obesity:

- **Limit food high in calories, sugar, fat and salt.**
- **Limit drinks high in sugar. Drink mostly water and unsweetened drinks.**
- **Limit ultra-processed foods.**

Key summary

- At least 13 types of cancer are caused by excess body fat in adulthood.
- Higher body weight early in life, and early onset and longer duration of overweight and obesity, can increase the risk of certain cancers later in life.
- Weight gain, due to an increase in fat storage, is caused by an excess of energy intake (from foods and drinks) and low levels of energy expenditure (from movement and physical activity).
- The amount you eat and drink (dietary intake) should be the main focus to manage overweight and obesity, and reduce your cancer risk.
- Weight management, by losing excess weight and maintaining a healthy body weight, and eating a healthy diet, decreases your risk of cancer.

Overweight and obesity, and cancer

The prevalence of overweight and obesity continues to rise in the European Union (EU). In 2019, 52.7% of people 18 years and older in the EU, as well as in Norway, Serbia, and Türkiye, were overweight. Overweight is more common in men than in women and is more prevalent in older adults. It is predicted that obesity will soon overtake smoking as the leading cause of cancer.

The causes of overweight and obesity are complex and are mainly related to environmental factors (often called the obesogenic environment). These include the marketing of food and the availability of low-cost, highly processed foods and drinks in homes, workplaces, shops, and leisure settings; this makes it difficult to avoid gaining weight.

The ways in which excess body fat causes cancer vary by cancer site. Three main ways in which this happens are: (1) fat cells increase production of hormones, such as estrogen; (2) an increase in insulin production, which alters hormones related to type 2 diabetes; and (3) an increase in inflammation due to hormones made by fat cells, which can damage DNA.

Sometimes weight gain may be related to psychological, social and cultural factors that encourage the consumption of lots of food and drink. For other people, genes, poor sleep, disabilities, and some medications may cause an energy imbalance, leading to weight gain.

Regular physical activity of all types protects against weight gain, overweight, and obesity.

Actions to reduce your cancer risk

Limit foods high in calories, sugar, fat and salt. Some foods are more closely related to overweight and should be eaten less often, including fast food (e.g. hamburgers, fried chicken, and fries), chocolates and confectionary, crisps, biscuits, ice cream, and cakes and pastries.

- Reduce intake of these types of food. Eat as little of them as possible, look for smaller portion sizes, and check information on food labels.
- Foods high in salt are often high in calories, and should therefore be kept to a minimum

Limit drinks high in sugar. Drink mostly water and unsweetened drinks. High intake of sweetened drinks is associated with obesity, poor bone health, and dental caries and erosion. Drinks to limit include fizzy drinks, drinks made from concentrates, and fruit juice.

- Drink water whenever possible.

Limit consumption of ultra-processed foods. These are ready-to-eat food items made using several industrial procedures, including ingredients added for cosmetic purposes, such as artificial sweeteners, dyes, and other items you would not commonly find in your kitchen. Limit processed meats (e.g. chicken nuggets, fish nuggets, and hot dogs), highly processed breakfast cereals, flavoured yoghurts, instant soups and ready-made desserts, artificially sweetened drinks, and pre-prepared ready-to-heat dishes (e.g. pies, pasta, and pizza) if they are made with ingredients and food additives you would not find in your kitchen.

- Eat homemade food, when possible, accessible, and affordable.

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International Agency for Research on Cancer

World Health Organization

Check out the **Diet** and **Physical activity Fact Sheets** to learn more.

Be physically active in everyday life. A healthy diet combined with physical activity is the best strategy for weight management. All types of movement (according to ability) and levels of activity help maintain weight loss. Walk as often as possible for as long and as fast as possible, participate in solo or team sports, or do home-based exercises.

Co-benefits for the prevention of noncommunicable diseases (NCDs) with similar risk factors and opportunities for health promotion

Overweight and obesity also increase the risk of cardiovascular diseases, diabetes, neurological disorders, chronic respiratory diseases, and digestive disorders and can affect mental and emotional health and well-being. Excess body fat also contributes to increased rates of premature death. Maintaining a healthy body weight, through diet and exercise, has been linked with improved outcomes for all of the above.

What is body mass index?

In adults, body mass index (BMI) is used to estimate overweight. BMI is calculated in kg/m², i.e. your weight in kilograms divided by the square of your height in metres (m²). Several calculators are available online to help you work out your BMI. Waist circumference is also a good indicator of intra-abdominal fat (visceral fat), which is associated with risk of disease.

BMI	
Overweight (BMI)	Obesity (BMI)
Greater than 25 kg/m² and less than 30 kg/m²	Greater than 30 kg/m²
Waist circumference	
Overweight (waist size)	Obesity (waist size)
Men: greater than 94 cm Women: greater than 80 cm	Men: greater than 102 cm Women: greater than 88 cm

Please note: The measurements in the table are based on Caucasian measurements. There are variations in the relationship between BMI and body fat percentage by ethnicity.

Learn about the policies that help support achieving and maintaining a healthy weight

To reduce overweight and obesity, a whole systems approach is needed to look at how food is grown, processed, transported, marketed, and sold, and to consider how these changes can be made at the local level. Effective food and health policies to reduce overweight and obesity could also play a significant role in mitigating climate change by reducing greenhouse gas emissions. Some examples of these policies are:

- Reducing sugar (mainly in soft drinks), for example through taxes on sugar-sweetened drinks to decrease sugar intake, and by encouraging companies that make drinks to reformulate their products.
- Improving access to unprocessed food
- Banning vending machines and providing food education in schools.
- Limiting the availability of high-fat meat products.
- Reformulating processed foods to help achieve dietary change by improving the nutrient quality of foods.
- Establishing mandatory restrictions on advertising food to children.
- Providing policies on physical activity in the workplace.
- Providing access to safe drinking-water.
- Providing counselling by health-care professionals and social support to help people change unhealthy behaviours.

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References

Bourdier et al (2023). Obes Rev, 24(2):e13528. PMID: 36394185

Eurostat (2024). Overweight and obesity–BMI statistics. Available from: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Overweight_and_obesity_-_BMI_statistics

International Agency for Research on Cancer (2018). Absence of Excess Body Fatness. IARC Handbooks Volume 16

Lane et al (2024). BMJ, 28;384:e077310. PMID: 38418082

Monteiro et al (2019). Public Health Nutr, 22(5):936-941. PMID: 30744710

Qin et al. (2020). Eur J Epidemiol, 35(7), 655–671. PMID: 32529512

Recalde et al (2023). Nat Commun, 30;14(1):3816. PMID: 37391446

World Cancer Research Fund (2023). NOURISHING and MOVING policy databases. Available from: https://policydatabase.wcrf.org

World Cancer Research Fund (2018). Diet, nutrition and physical activity: Energy balance and body fatness. Available from: https://www.wcrf.org/wp-content/uploads/2021/02/Energy-Balance-and-Body-Fatness.pdf

World Health Organization (2024). Obesity and Overweight. Available from: https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight

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