Aside from tobacco use, the most important modifiable determinants of cancer risk are weight, eating patterns, alcohol consumption, and physical activity.

**Cancers affected**
An estimated 18% of cancer cases and 16% of cancer deaths are attributable to the combined effects of excess body weight, alcohol consumption, physical inactivity, and an unhealthy diet.

**Excess body weight**
An estimated 5% of cancers in men and 11% in women can be attributed to excess body weight. Excess body weight (i.e., being overweight or obese) is associated with an increased risk of developing several types of cancer: adenocarcinoma of the esophagus, female breast (postmenopausal), colon and rectum, uterine corpus (endometrium), kidney (renal cell), liver, pancreas, stomach (cardia), meningioma, gallbladder, ovary, thyroid cancer, and multiple myeloma. Excess body weight may also increase the risk of non-Hodgkin lymphoma (diffuse large B-cell lymphoma); mouth, pharynx, and larynx cancers; male breast cancer; and fatal prostate cancer.

**Alcohol consumption**
An estimated 6% of cancer cases can be attributed to alcohol consumption. Alcohol consumption increases risk for cancers of the mouth, pharynx, larynx, esophagus (squamous cell carcinoma), liver, colon and rectum, female breast, and stomach. Cancer risk increases with alcohol volume, and even a few drinks per week may increase the risk of some cancers. Alcohol consumption combined with tobacco use synergistically increases the risk of cancers of the mouth, pharynx, larynx, and esophagus far more than either drinking or smoking alone.

**Physical inactivity**
An estimated 3% of cancer cases are attributed to physical inactivity. Regular physical activity decreases the risk of cancers of the colon (but not rectum), female breast, and endometrium, as well as kidney, bladder, esophageal (adenocarcinoma), stomach (cardia), and possibly lung. Extended leisure-time sitting has also been associated with increased risk of cancer death, whereas replacing sedentary time with even short durations of moderate- to vigorous-intensity aerobic physical activity appears to reduce cancer mortality.

**Dietary factors**
Approximately 4% to 5% of all cancer cases are attributed to dietary factors. Eating patterns high in red and processed meat, starchy foods, refined carbohydrates, and sugary drinks are associated with a higher risk of developing cancer (predominantly colon). Alternatively, diets with an emphasis on a variety of fruits and vegetables, whole grains, legumes, and fish or poultry and fewer red and processed meats are associated with lower risk. Cancer survivors who follow a healthy diet pattern have a 17% to 18% lower risk of dying from cancer or other causes.

**ACS Guidelines on Diet and Physical Activity for Cancer Prevention**

**Achieve and maintain a healthy weight throughout life.**
- Keep body weight within the healthy range, and avoid weight gain in adult life.
Adopt a physically active lifestyle.

- Adults should engage in 150-300 minutes of moderate-intensity physical activity per week, or 75-150 minutes of vigorous-intensity physical activity, or an equivalent combination of these. Getting to or exceeding the upper limit of 300 minutes is optimal.
- Children and teens should engage in at least 1 hour of moderate- or vigorous-intensity activity each day.
- Limit sedentary behavior, such as sitting, lying down, and watching television and other forms of screen-based entertainment.

Follow a healthy eating pattern at all ages.

A healthy eating pattern includes:

- Foods that are high in nutrients in amounts that help achieve and maintain a healthy body weight
- A variety of vegetables – dark green, red, and orange, fiber-rich legumes (beans and peas), and others
- Fruits, especially whole fruits in a variety of colors
- Whole grains

A healthy eating pattern limits or does not include:

- Red and processed meats
- Sugar-sweetened beverages
- Highly processed foods and refined-grain products

It’s best not to drink alcohol.

People who do choose to drink alcohol should limit their consumption to no more than 1 drink per day for women and 2 drinks per day for men.

References
