

Cancer: The Basics

What is Cancer?

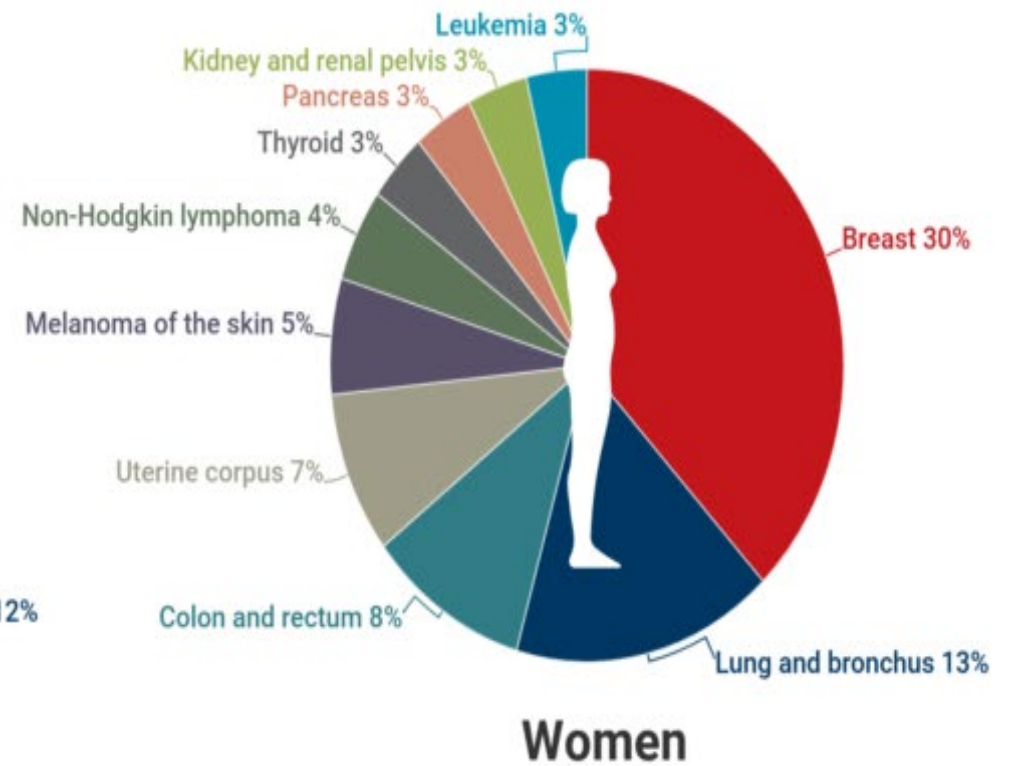
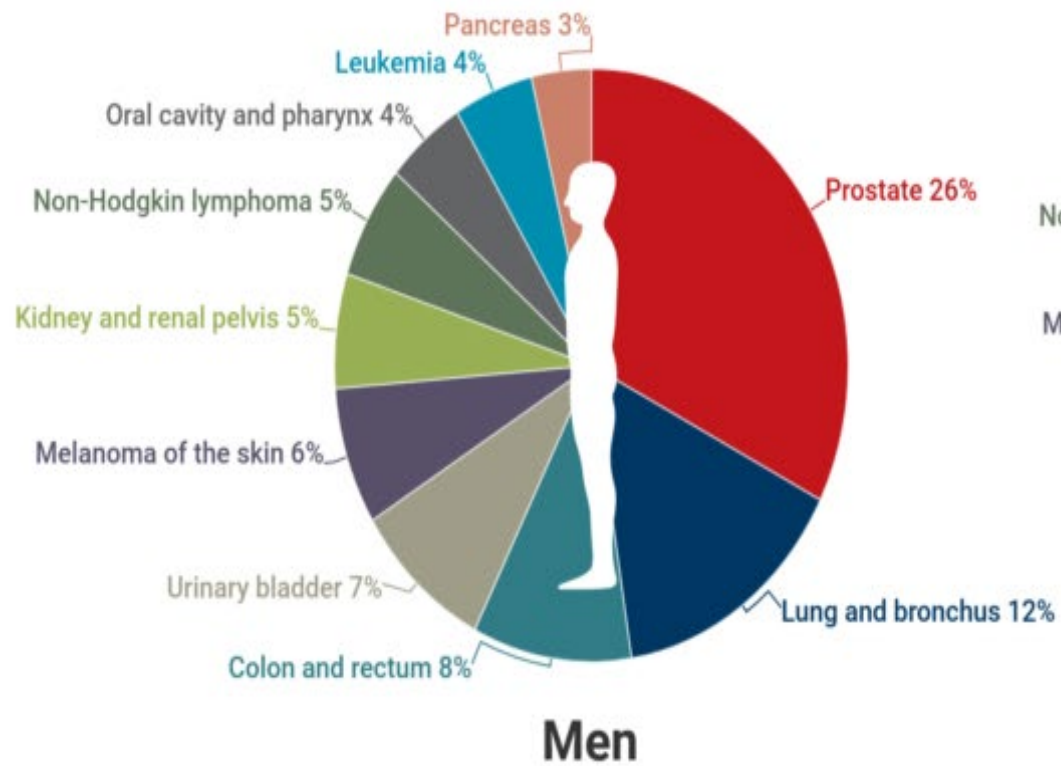


Figure 2. Estimated new cancer cases in the United States by sex



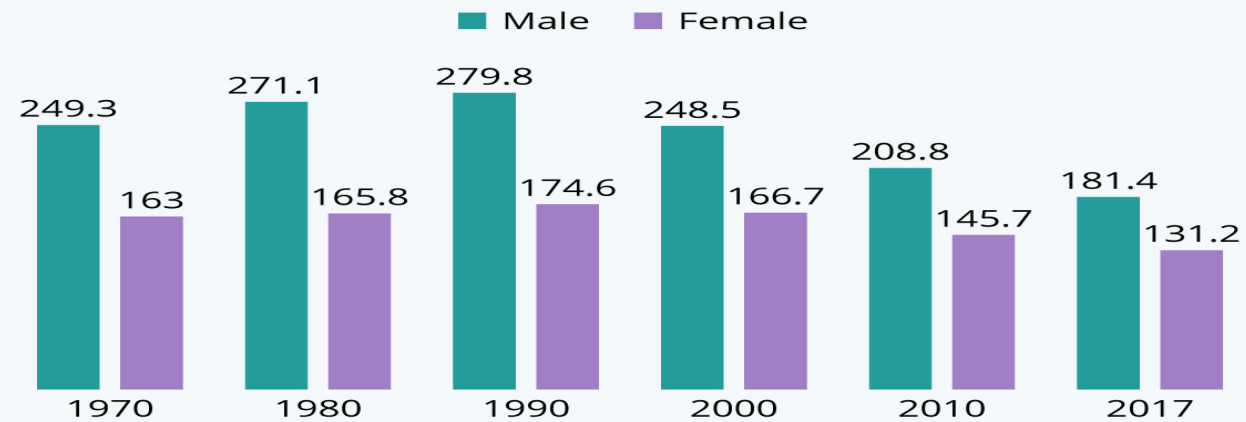
Some Basic Cancer Facts/figures

- ▶ **What is Cancer?** Cancer is a group of diseases characterized by the uncontrolled growth of cells that develop and spread and in the end can result in death.
- ▶ **What are some of the risk factors?** Tobacco use, alcohol abuse, environmental hazard exposure (chemical and sun exposure), some food ingredients, overall health and immune system status, age onset, and inherited genetic factors or family history.
- ▶ **Prevention?** Decrease your risk of exposure. Know your own body. Sunscreen and skin coverage can help prevent some cancers. Screening for certain cancers (colorectal, breast, prostate, and lung, for example).
- ▶ **Progress?** The best measure of progress may be in the likelihood of dying from cancer, or mortality of the disease, and not the rate of new diagnoses.

Rates of Mortality from Cancer

Cancer Mortality Rates are Falling

Cancer death rate per 100,000 people in the U.S.

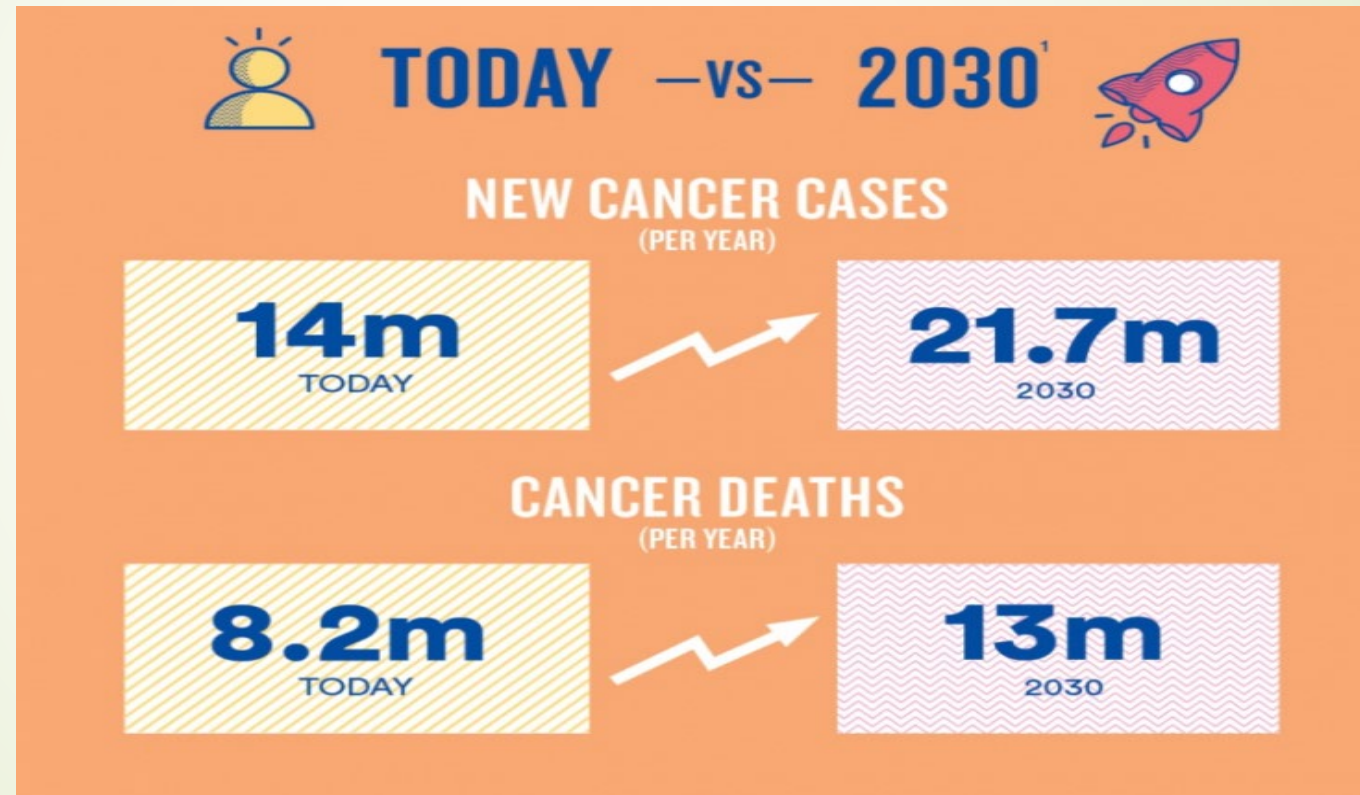


Source: American Cancer Society



statista

Incidence and death rates projected





What percentage of people survive Cancer?

- ▶ Overall, survival rates are a reflection of early detection and treatment of the disease relative to the past. Survival rates vary greatly by the type of cancer and the stage of the cancer and treatability.
- ▶ Survival rates have many factors, including access to care and changes in behavior and/or exposure, in some cases.
- ▶ Early diagnosis has increased time, but is not necessarily an indication of survivability of the disease.
- ▶ **Staging of the disease:** Staging is based on the size of the tumor and whether it has spread to adjacent lymph nodes, and penetration of cellular layers of tissue in regards to where the cancer first developed.
- ▶ **Costs?** As of 2020, according to the NCI, the medical costs exceeded 208.9 billion dollars nationwide, which is likely an underestimate of costs.

How is Cancer treated?





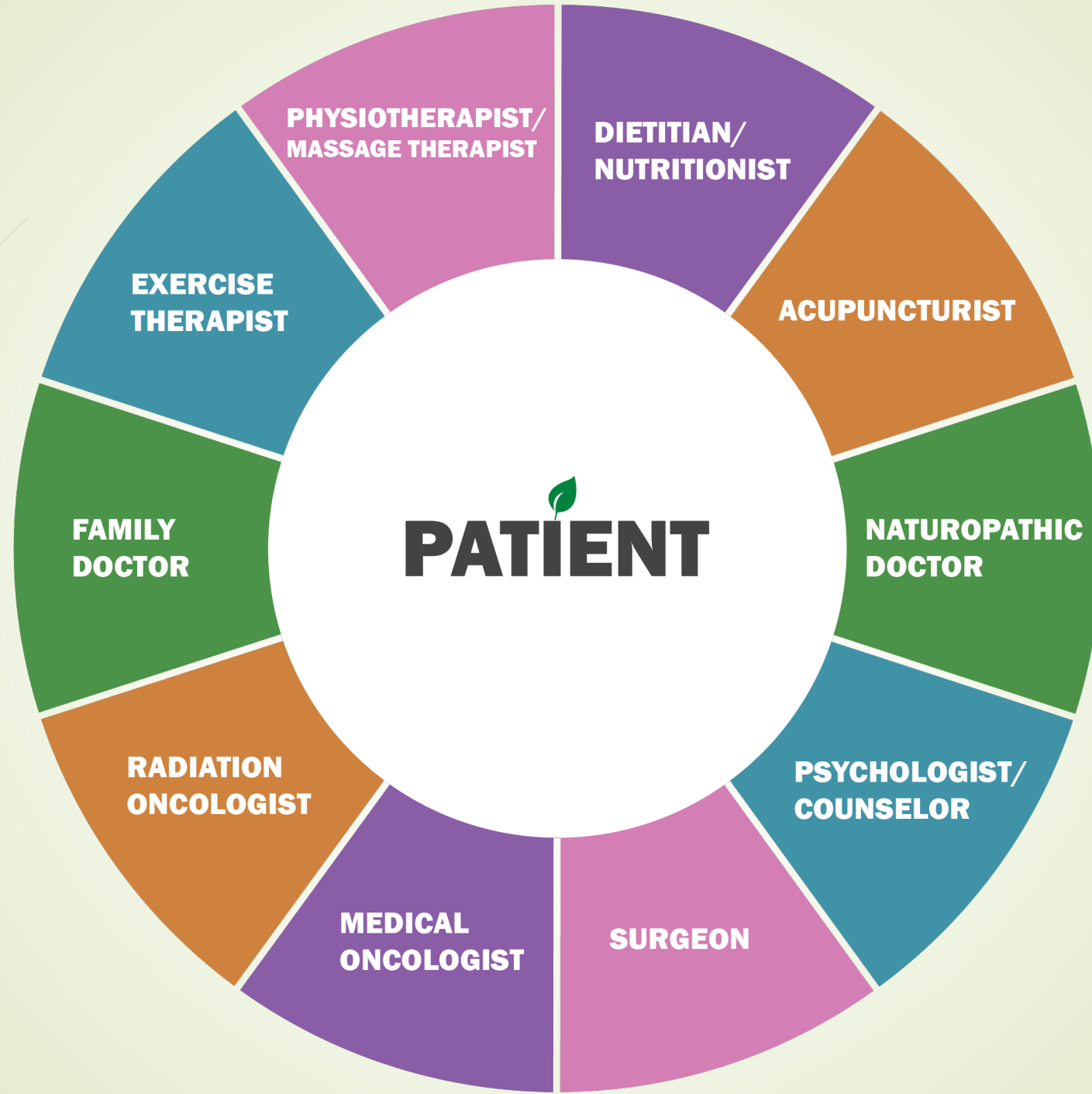
Before treatment comes understanding the diagnosis

- ▶ **What kind of cancer do I have? Is it even treatable?** Where did it start and has it spread. Can it be treated or not matters. Malignant or benign?
- ▶ **Where is the cancer located?** Body organs involved and tissue affected by the proliferating abnormal cells and is it a primary location or not?
- ▶ **What is the staging of the cancer?** How severe and invasive has the disease progressed, or tissue layers involved.
- ▶ **What does the diagnosis of the staging mean?** Diagnosis is the projected timeline and treatment options are involved, including whether a cure is possible or whether palliative care is the goal.
- ▶ **If treatable, what are the options open to you?** Options can include treatment and what types of treatment desired or recommended. This can run the gamut of no treatment to maximum treatment for the disease.



What are your goals for treatment?

- ▶ After understanding your diagnosis and options available to you then you can begin to work in partnership with your physician and the physician's team to address how to best proceed as far as treatment goes.
- ▶ The decision to consult palliative care and/or Hospice may be addressed at any point in the treatment of your illness.
- ▶ Therapies to address cancer usually has two goals in mind: Cure the illness or control the illness. Cure is to eliminate. Control is to palliate and extend life as long as possible.
- ▶ There may be an establishment of goals for each form of therapy agreed upon. For example, how long to do a particular therapy.
- ▶ A discussion will be had as to the medications used for the illness and the medications used to treat side effects/symptoms, like nausea or pain.



PATIENT

**PHYSIOTHERAPIST/
MASSAGE THERAPIST**

**DIETITIAN/
NUTRITIONIST**

ACUPUNCTURIST

**NATUROPATHIC
DOCTOR**

**PSYCHOLOGIST/
COUNSELOR**

SURGEON

**MEDICAL
ONCOLOGIST**

**RADIATION
ONCOLOGIST**


**FAMILY
DOCTOR**

**EXERCISE
THERAPIST**




How to decide what is most important to you.

- ▶ Given the illness, what are your goals? What is important to you as far as quality and quantity of life is concerned?
- ▶ How aggressive do you want to be in treatment and for how long?
- ▶ What are your worries as to care?
- ▶ What is important at the moment? What are your immediate concerns?
- ▶ What are your concerns if treatment fails or the cancer worsens?
- ▶ Keep in mind that goals and decisions can change over time.
- ▶ An advanced directive and/or power of attorney for healthcare needs is a must if one has not already been logged and established.



Understanding the side effects of treatment, and the risks vs. benefits

- ▶ One must weight the positives vs. the negatives and the risks vs. the benefits of treatment and treatment regimen.
- ▶ Short term and long term side effects should be considered if applicable and is treatment desired at all.
- ▶ Can the illness be cured?
- ▶ Is there a likelihood the illness will come back after treatment?
- ▶ What are the chances of living longer?
- ▶ What about your quality of life versus quantity?



What are some other possible considerations?

- ▶ Is it okay to get a second or third opinion?
- ▶ Options for clinical trials might be open to you as far as new treatment options.
- ▶ You may want to look deeper into treatment and consulting guidelines and other decision-making tools. The **American Society of Clinical Oncology (ASCO)**, publish various guidelines and decision-making tools that can assist you as the patient.
- ▶ Discuss decisions with people you trust: family, close friends, spiritual advisors, social workers, members of a support group (if you decide to join one), another individual who has cancer or has recovered from cancer.



Typical questions to ask your healthcare team:

- What kind of cancer do I have?
- Where is the cancer located?
- What does this mean for me?
- What are my options as far as treatment?
- What do you as the physician recommend?
- When do I make the decision(s)?
- What are my treatment goals?
- Short term and long term effects and options for treating these s/s
- Do you recommend a second opinion?

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CANCER PREVENTION TIPS

1 Stop, or Never Start, Smoking

Smoking is the number one cause of lung cancer, and the habit contributes to cancers of the esophagus, larynx, mouth, throat, and more.

2 Exercise

Physical activity – even moderate exercise – can reduce the risk not only of developing cancer but of having a recurrence following treatment.

3 Moderate Alcohol Consumption

Alcohol use is linked not just to liver cancer, but to a number of other types, including head and neck, esophageal, breast, and colorectal.

4 Know Your Family History

If there is a strong history of cancer in your family, talk with your physician about genetic counseling.

5 Wear Sunscreen

Throughout the year, sunscreen is an important first line of protection against sun exposure, which can cause skin cancer.

6 Get Immunized

The human papillomavirus and hepatitis B virus vaccines can help prevent cervical and liver cancer, respectively, as well as other forms of cancer.

7 Practice Safe Sex

Safe sex makes you less likely to contract a sexually transmitted infection like HPV or HIV, which increases the risk of other cancers.

8 Get Regular Check-Ups

Make regular appointments with your primary care physician to keep track of any changes in your body.

9 Limit Consumption of Red Meats

Research shows red meat has been linked to an increased risk for colorectal, pancreatic, and prostate cancers.

10 Maintain a Healthy Weight

There is strong evidence that weight gain, being overweight, and obesity increases the risk of 11 cancers, including breast and pancreatic.



Resources



- ▶ [What is Cancer? | Cancer Basics | American Cancer Society](#)
- ▶ [Patient Education | UC Davis Comprehensive Cancer Center](#)
- ▶ [ASCO Hub – American Society of Clinical Oncology](#)
- ▶ <https://www.cancer.net>