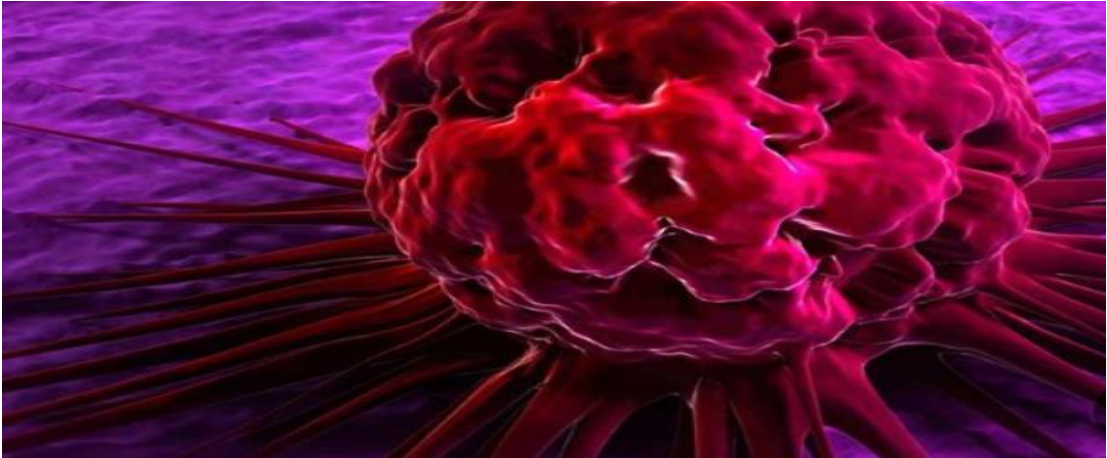
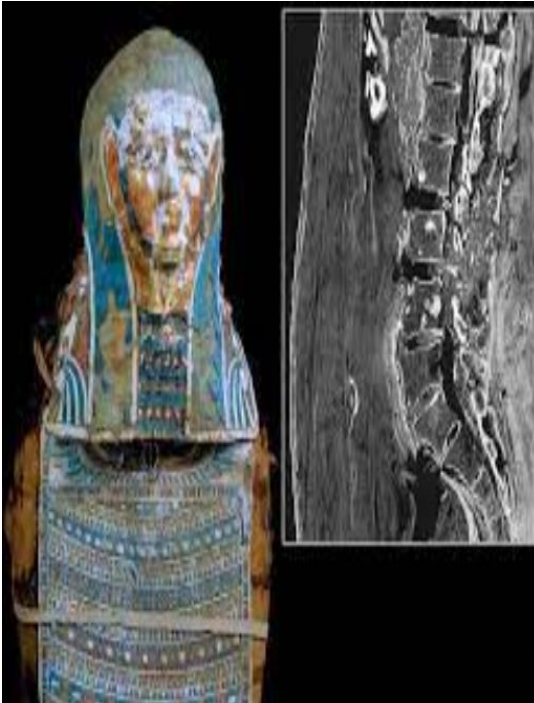
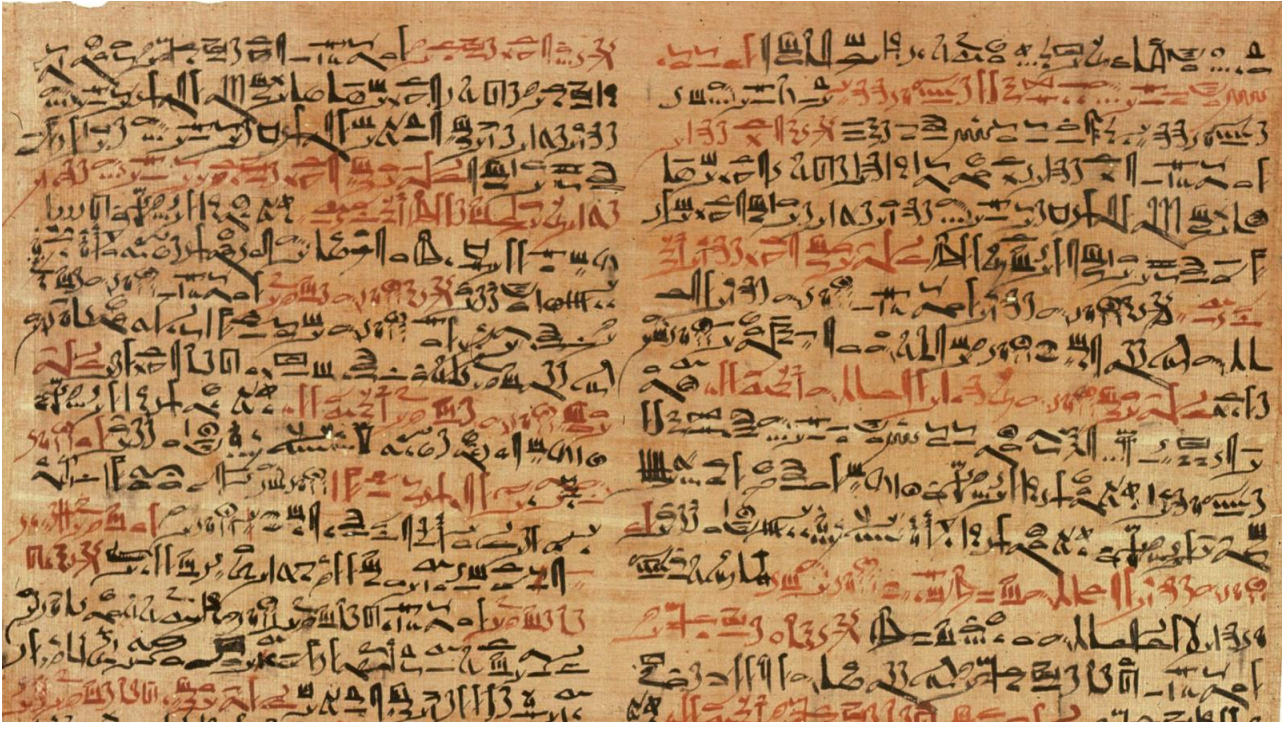


# Oncology



## How long has cancer existed for?

- Some of the earliest evidence of cancer is found among fossilized bone tumors, human mummies in ancient Egypt, and ancient manuscripts. Abnormalities suggestive of the bone cancer called osteosarcoma have been seen in mummies.
- Among manuscripts the first known description of cancer is seen in the Edwin Smith Papyrus and is a copy of part of an ancient Egyptian textbook on trauma surgery. It describes 8 cases of tumors or ulcers of the breast that were treated by cauterization with a tool called the fire drill. It dates back to about 3000 BC. The papyrus describes the condition as “incurable”



**Bone cancer found in 240-million-year-old stem-turtle fossil**

by Bob Yirka, Phys.org



# Oncology

Oncology is a sub-specialty of medicine dedicated to the investigation, diagnosis and treatment of people with cancer or suspected cancer. It includes:

- preventative medicine
- medical oncology (chemotherapy, immunotherapy, hormone therapy and other drugs to treat cancer)
- radiation oncology (radiation therapy to treat cancer)
- surgical oncology (surgery to treat cancer), and
- palliative medicine.

## Oncology

Each of the cells of the body have a tightly regulated system that controls their growth, maturity, reproduction and eventual death. Cancer begins when cells in a part of the body start to grow out of control. There are many kinds of cancer, but they all start because of out-of-control growth of abnormal cells.

# Overview

- Cancer refers to any one of a large number of diseases characterized by the development of abnormal cells that divide uncontrollably and have the ability to infiltrate and destroy normal body tissue. Cancer often has the ability to spread throughout your body.
- Cancer is the second-leading cause of death in the world. But survival rates are improving for many types of cancer, thanks to improvements in cancer screening, treatment and prevention.

# Symptoms

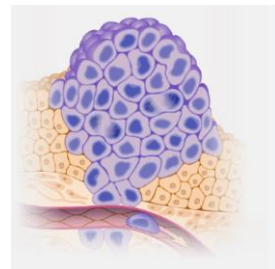
- Fatigue
- Lump or area of thickening that can be felt under the skin
- Weight changes, including unintended loss or gain
- Skin changes, such as yellowing, darkening or redness of the skin, sores that won't heal, or changes to existing moles
- Changes in bowel or bladder habits

## Cot.....

- Persistent cough or trouble breathing
- Difficulty swallowing
- Hoarseness
- Persistent indigestion or discomfort after eating
- Persistent, unexplained muscle or joint pain
- Persistent, unexplained fevers or night sweats
- Unexplained bleeding or bruising

## Causes

Cancer is caused by changes (mutations) to the DNA within cells. The DNA inside a cell is packaged into a large number of individual genes, each of which contains a set of instructions telling the cell what functions to perform, as well as how to grow and divide. Errors in the instructions can cause the cell to stop its normal function and may allow a cell to become cancerous.



## Risk factors

- Your age

Cancer can take decades to develop. That's why most people diagnosed with cancer are 65 or older. While it's more common in older adults, cancer isn't exclusively an adult disease — cancer can be diagnosed at any age.

- Your habits

Certain lifestyle choices are known to increase your risk of cancer. Smoking, drinking more than one drink a day for women and up to two drinks a day for men, excessive exposure to the sun or frequent blistering sunburns, being obese, and having unsafe sex can contribute to cancer.

## family history

- Only a small portion of cancers are due to an inherited condition. If cancer is common in your family, it's possible that mutations are being passed from one generation to the next. You might be a candidate for genetic testing to see whether you have inherited mutations that might increase your risk of certain cancers. Keep in mind that having an inherited genetic mutation doesn't necessarily mean you'll get cancer.

# Health Conditions

- Some chronic health conditions, such as ulcerative colitis, can markedly increase your risk of developing certain cancers. Talk to your doctor about your risk.

## Complications

- **Pain.** Pain can be caused by cancer or by cancer treatment, though not all cancer is painful. Medications and other approaches can effectively treat cancer-related pain.
- **Fatigue.** Fatigue in people with cancer has many causes, but it can often be managed. Fatigue associated with chemotherapy or radiation therapy treatments is common, but it's usually temporary.
- **Difficulty breathing.** Cancer or cancer treatment may cause a feeling of being short of breath. Treatments may bring relief.

- **Nausea.** Certain cancers and cancer treatments can cause nausea. Your doctor can sometimes predict if your treatment is likely to cause nausea. Medications and other treatments may help you prevent or decrease nausea.
- **Diarrhea or constipation.** Cancer and cancer treatment can affect your bowels and cause diarrhea or constipation.

- **Weight loss.** Cancer and cancer treatment may cause weight loss. Cancer steals food from normal cells and deprives them of nutrients. This is often not affected by how many calories or what kind of food is eaten; it's difficult to treat. In most cases, using artificial nutrition through tubes into the stomach or vein does not help change the weight loss.



## Prevention

- **Stop smoking.**
- **Avoid excessive sun exposure.**
- **Eat a healthy diet.**
- **Exercise most days of the week.**
- **Maintain a healthy weight.**
- **Schedule cancer screening exams.**
- **Ask your doctor about immunizations.**