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**Review Article**

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**A REVIEW ON DIFFERENT TYPES OF CANCER**

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**ABSTRACT**

*Cancer remains one of the leading causes of morbidity and mortality worldwide. More than 70% of all cancer deaths occurred in low- and middle-income countries. Deaths from cancer worldwide are projected to continue rising. Cancer is a major health burden worldwide by 2030, over 9 million cancer patients are assumed to die in developing countries from different types of cancers. Incidence of different types of cancers is increasing due to unhealthy life style. At present, lung cancer is most prevalent in Bangladeshi male whereas it is cancer cervix in female. The developing world is already burdened by cancers some of which are attributable to infectious diseases. These disparities in cancer risk combined with poor access to epidemiological data, research, treatment, and cancer control and prevention combine to result in significantly poorer survival rates in developing countries for a range of specific malignancies.*

**Keywords:** Malignancies, Major health burden, Unhealthy, Lung Cancer, Middle-income countries.

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**INTRODUCTION**

Cancer is a disease which occurs when changes in a group of normal cells within the body lead to uncontrolled growth causing a lump called a tumor; this is true of all cancers except leukaemia (cancer of the blood). A tumor is any abnormal proliferation of cells. Cancer is also known as malignant. Malignant tumors are capable of invading surrounding tissue or invading the entire body. Cancer is caused by consumption of alcohol, chewing of tobacco, come in contact of radiation. A cancer survivor is any person who has been diagnosed with cancer, from the time of diagnosis through the balance of life. There are at least three distinct phases associated with cancer survival, including the time from diagnosis to the end of initial treatment, the transition from treatment to extended survival, and long-term survival.

Based on tissue types cancers can be classified into five major categories: Carcinoma-this cancer originates from the epithelial layers of cell that from the lining of external parts of the body or the internal lining of organs within the body. Sarcoma- This type of cancers originate in connective & supportive tissues including muscles, bones, fat & cartilage. Myeloma-This type of cancer originates in the plasma cells of bone marrow. Plasma cells are capable of producing various antibodies in response to infections. Leukemia-This cancers affect the bone marrow which is the site for blood cell production. The bone marrow begins to produce excessive immature WBC that fail to perform their usual actions & the patient is often prone to infection. Lymphoma-These are the cancer of lymphatic system. Unlike the leukemia's, which affects the blood & are called "liquid cancers" and lymphomas are "solid cancers."<sup>(1,2)</sup>

**TYPES OF CANCER**

There are many types of cancer  
Lung cancer

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Liver cancer  
 Anal cancer  
 Appendix cancer  
 Adrenal cancer  
 Bone cancer  
 Oral cancer

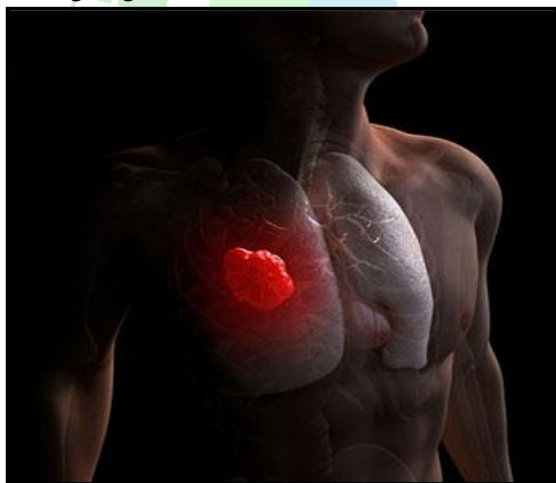
*Some Commonly Occurring Cancer are:*

## LUNG CANCER

Lung cancer is also known as lung carcinoma, malignant lung tumor characterized by uncontrolled cell growth in tissues of the lung. If left untreated, this growth can spread beyond the lung by the process of metastasis into nearby tissue or other parts of the body. Most cancers that start in the lung, known as primary lung cancers, are carcinomas.<sup>(1)</sup>

### Sign & Symptoms<sup>(2)</sup>

Coughing



**Figure 1: lung cancer**

### Causes

- **Smoking:** smoking, particularly of cigarette, is by far the main contributor to lung cancer. Cigarette smoke contains at least 73 known carcinogens, including benzo (a) pyrene, [ NNK, 1n3-butadiene and radioactive of polonium 210.
- **Radon gas:** Radon is a colourless and odorless gas generated by the breakdown of radioactive radium, which in turn is the decay product of uranium, found in the Earth's crust. The radiation decay

products ionize genetic material, causing mutations that sometimes turn cancerous.

- **Air pollution:** Outdoor air pollutants, especially chemicals released from the burning of fossil fuels, increase the risk of lung cancer. Fine particulates (PM<sub>2.5</sub>) and sulphate aerosols, which may be released in traffic exhaust fumes, are associated with slightly increased risk.

### Treatment

- **Apples:** Apples contain a significant amount of antioxidants called flavanoids. These compounds can destroy cancer causing free radicals in your lungs.
- **Cruciferous Vegetables:** According to the Cancer Cure Foundation, these contain an antioxidant called lutein, which can decrease cancer risk.
- **Beta carotene:** Research compiled by the American Institute for Cancer Research in 2007, found evidence that beta carotene can reduce the risk of lung cancer. It also found that beta carotene supplements may increase lung cancer risk, particularly in smokers.

## LIVER CANCER

Liver cancer is also known as hepatic cancer and primary hepatic cancer, is cancer starts in the liver. Cancer which has spread from elsewhere to the liver, known as liver metastasis, is more common than that which starts in the liver.<sup>(3)</sup>

### Signs and Symptoms<sup>(4,5,6)</sup>

- Weight loss (without trying)
- Loss of appetite
- Feeling very full after a small meal
- Nausea or vomiting



## Figure 2: liver cancer

### Causes of liver cancer<sup>(5,6)</sup>

**Anabolic steroids** - used by athletes and weight lifters. These male hormones, if used regularly and for long enough, can raise the risk of developing liver cancer, as well as some other cancers.

**Aflatoxins** - a substance made by a fungus and may be found in moldy wheat, groundnuts, corn, nuts, soybeans and peanuts. For liver cancer risk to increase there needs to be long-term exposure. This is more of a problem in less wealthy countries.

**Cirrhosis** - when liver cells are damaged and replaced with scar tissue. People with cirrhosis of the liver have a higher risk of developing liver cancer.

**Diabetes** - patients with diabetes, especially if they also have hepatitis, or regularly consume a lot of alcohol, are more likely to develop liver cancer.

**Family history** - people whose mother, father, brother, or sister had liver cancer are at a higher risk of developing it themselves, compared to others.

### Treatment

**Turmeric:** contains the compound curcumin and has been traditionally used as an antiseptic and anti-infection.

**Danshen:** Danshen is a Chinese herb and is composed of the compound **Tanshinone II A** that is a very strong anti-oxidant and is used for treating **angina pectoris**.

**Milk thistle:** Milk thistle is used in the treatment of liver cirrhosis since it helps protect the liver from further damage.

### ANAL CANCER

Anal cancer occurs in the anus the end of the gastrointestinal tract. Anal cancer is very different from colorectal cancer, which is much more common.

Anal cancer's causes risk factors, clinical progression, staging & treatment are all very different from colorectal cancer. Anal cancer is lump which is created by the abnormal & uncontrolled growth of cells in the anus.<sup>(7)</sup>

### Sign & symptom of anal cancer

- Pain in anal area
- Mucus discharge from the anus
- Lumps around the anus

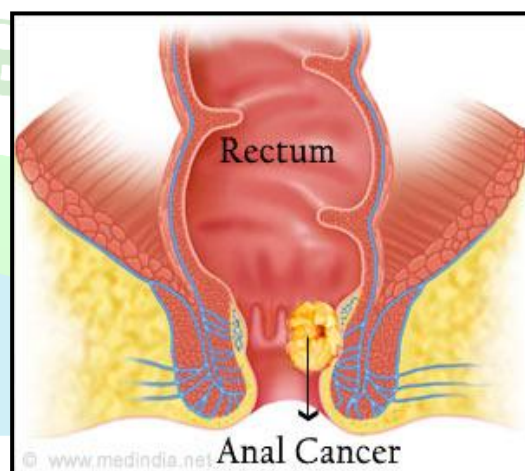


Figure 3: anal cancer

### Causes of anal cancer

**Human papilloma virus (HPV)**- some types of HPV are closely linked to anal cancer. 80% of patients with anal cancer are infected in the anal area with a HPV.

**Receptive Anal Intercourse** – Both men & women who receive anal intercourse have a Higher risk of developing anal cancer.

**Age** – The older somebody is the higher is his/her risk of developing anal cancer. In fact, this is the case with most cancers.

**Smoking** – Smokers are significantly more likely to develop & cancer compared to Non-smokers.

### Treatment of anal cancer:

**Garlic:** Garlic can be an option to be used in rectal cancer, these all home remedies are effective in pre stage and in advanced stage expert medical treatment is needed only. Various studies have proven garlic's effectiveness in minimizing the cancer chances.



**Onion:** Onion and garlic with their amazing natural properties are known as anti cancer foods. Onion helps in detoxifying our body tissues and enhancing our immune system resistance. It will provide patient help in decreasing the cancer risk also.

## APPENDIX CANCER

Appendix is a pouch like tube that is attached to the cecum, which is the first section of the large intestine or colon. The appendix averages 10 cm in length. It is considered part of the GIT. Generally thought to have no significant function in the body, the appendix may be a part of the lymphatic, endocrine or exocrine systems.<sup>(8)</sup>

### Sign & symptoms of appendix cancer

- Appendicitis
- Bloating
- Pain in the abdominal & pelvis area
- Ascites, which is fluid in abdomen

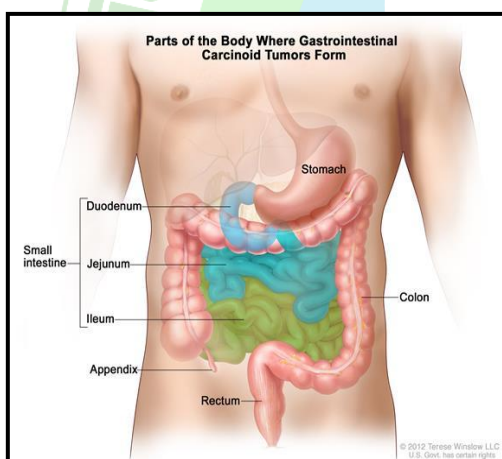


Figure 4: Appendix cancer

### CAUSES

**Infection** - a stomach infection may have found its way to the appendix.

**Obstruction** - a hard piece of stool may have got trapped in the appendix. The bacteria in the trapped stool might then infect the appendix.

### Treatment of appendix cancer:

**Garlic & Ginger:** Both these ingredients can help to fight inflammation in any area of the body. Garlic helps to cut down on

the swelling that manifests the appendix. Ginger helps to cut down on inflammation.

**Juice:** We can have cucumber, carrot and beet root juices twice in a day to reduce our symptoms as well. These juices are to be mixed together and had because they have a joined action during appendicitis.

**Pain management:** We can treat the pain by tying a loose cold or wet cloth around our abdomen for relief. We can also prepare mint tea using a few drops of mint essence. Mint is a good reliever of pain. Patient can also try decoction of basil leaves to treat the pain.

**Buttermilk:** If the appendicitis is caused by an infection, we can treat it by having buttermilk. It has a lot of good bacteria that can help fight the infection easily. Vitamin C is also a good way to boost our immunity.

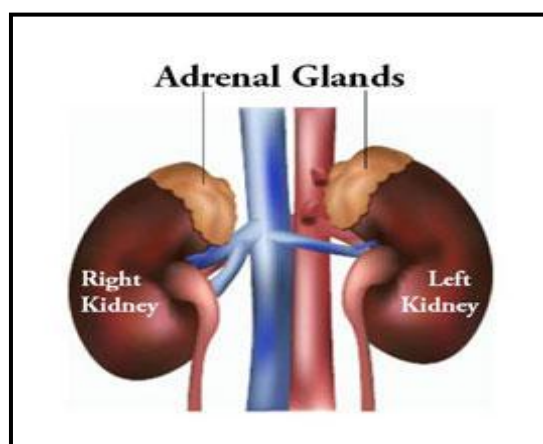
## ADRENAL CANCER

Adrenal cancer is a condition occurs when abnormal cells form in or travels to the adrenal glands. Our body has two adrenal glands, one located above each kidney. Adrenal cancer usually occurs in the outermost layer of the glands, or the adrenal cortex. It usually appears as a tumor.

A cancerous tumor of the adrenal gland is called an adrenal cortical carcinoma. A noncancerous tumor of the adrenal gland is called a benign adenoma.<sup>(9,10)</sup>

### Sign & symptoms of adrenal cancer:

- Excessive pubic, underarm, & facial hair growth
- An enlarged clitoris
- An enlarged penis



### Figure 5 Adrenal cancer

#### Causes of adrenal cancer:

- Li – fraumeni syndrome
- Carney complex
- Lynch syndrome

#### Treatment of adrenal cancer:

**Ashwagandha Capsules:** These herbal capsules are prepared using the extracts of the *Withania somnifera*. These capsules are beneficial in relieving symptoms such as muscle spasms, fatigue, stress,

**Dosage** - 2 capsules two times daily after meals.

**Curcumin Capsules:** These herbal capsules are formed using standardized extracts of the turmeric (*Curcumin*) herb. These capsules are anti-cancer, anti-inflammatory, anti-hypertensive, anti-diabetic, anti-histaminic, anti-ageing, anti-hepatotoxic, anti-coagulant.

**Dose** - 2 capsules two times daily after meals.

**Tulsi Capsules:** These herbal Capsules are formed from the Tulsi herb that has so many medicinal properties. It helps to treat cancer, autoimmune disorder, chronic rhinitis, allergy and chronic sinusitis.

**Dose** - 2 capsules daily two times daily after meals.

**Guggul Capsules:** Guggul capsules are prepared from the standardized extract of pure natural guggul (resin).

**Dose** - 2 capsules two times daily after meals.

### BONE CANCER

Bone cancer can arise in any of the bones of the body but it is most commonly seen in the long bones of the arms and legs. It has the ability to attack the body within the first 20 years of life when maximum growth in the musculoskeletal system takes place.

Primary bone cancers originate in the bone tissue.

Common types are: osteosarcoma, chondrosarcoma and Ewing sarcoma. Other rare bone cancers include fibrosarcoma, leiomyosarcoma, malignant fibrous histiocytoma, angiosarcoma and chordoma. Secondary bone cancer occurs when cancer cells from other parts of the body migrate to the bone tissue.<sup>(11,12)</sup>

#### Sign & Symptoms:

- Presence of a mass or lump on the bone
- Dizziness and fatigue
- High body temperature, chills

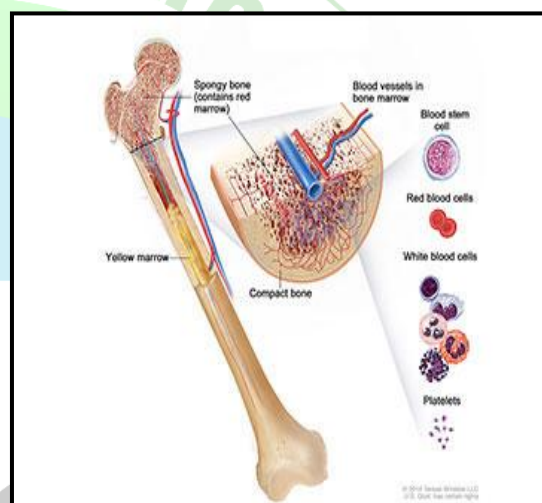


Figure 6 Bone cancer

#### Causes

- Being a child or very young adult - most cases of bone cancer occur in children or young adults aged up to 20 years.
- Patients who have received radiation therapy (radiotherapy).
- People with a history of Paget's disease.
- People with a close relative (parent or sibling) who has/had bone cancer.

#### Treatment

**Green tea:** This is one of the most used bone cancer home remedy. Also it is used in the medicine as natural treatment for bone cancer. This tea is very powerful because it is possessing anti-cancer properties which are making it the perfect natural remedy for bone cancer.

**Vitamin A:** Patient is suffering from bone cancer should add big quantity of Vitamin A

in their diet. There are many fruits and vegetables which are rich source of Vitamin A such as yellow, dark-green or orange vegetables and fruits.

**Aloe Vera:** Aloe Vera is one of the most used bone cancer home remedy. This is reason because this plant has anti-cancer properties which are helping in the fight against the bone cancer. Aloeride is component of the Aloe Vera which is extremely important for the healing process of the bone cancer. If patient is suffering from bone cancer, then he must use Aloe Vera constantly.

### ORAL CANCER

Oral cancer is also known as mouth cancer. It is a type of head & neck cancer and is any cancerous tissue growth located in the oral cavity.

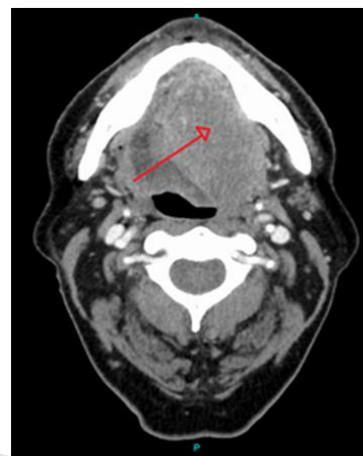
It may arise as a primary lesion originating in any of the tissues in the mouth, by metastasis from a distant site of origin, or by extension from a neighboring anatomic structure, such as the nasal cavity. Alternatively, the oral cancers may originate in any of the tissues of the mouth, and may of varied histologic types: teratoma, adenocarcinoma derived from a major or minor salivary gland, lymphoma from tonsillar or other lymphoid tissue, or melanoma from the pigment-producing cells of the oral mucosa.<sup>(13,14,15)</sup>

### Signs and symptoms

- Swelling, lumps, rough spots or other areas inside the mouth
- Unexplained bleeding in the mouth
- Hoarseness, chronic sore throat, or change in voice

### Causes

- Smoking, cigarette, cigar, or pipe smokers
- Alcohol consumption



**Figure- 7 A large squamous cell carcinoma of the tongue as seen on CT imaging**

### Treatments

**Mint:** *Mentha Arvensis* is the Latin name of this herb. It belongs to the genus *Lamiaceae*. This herb is also known by other names such as Field Mint, Japanese Mint, Corn Mint and Pudina. They also prevent the further growth of the tumor by destroying the carcinogens before stopping the blood supply.

**Thyme:** *Thymus Vulgaris* is the Latin name of this herb. It is well known as a kitchen herb which has culinary uses. This herb also has several anti-cancer properties. Terpenes are active anti-cancer agents found in this herb which heal mouth cancer.

### Conclusion

The evidence is sufficient to conclude that the risk of developing adenocarcinoma of the lung from cigarette smoking has increased since the 1960s. The evidence is sufficient to infer a causal relationship between smoking and hepatocellular carcinoma. Squamous cell carcinoma of the anal canal is a malignancy that has historically been misunderstood as a malignancy common to immunosuppressed individuals. Bone metastasis and treatment have provided treating physicians with greater opportunity to counsel their patients about the risk of developing bone metastases, and new therapies to possibly prevent their occurrence and to treat the disease. Oral cancer is a common disease mostly associated with tobacco and alcohol use. All forms of oral cancer are amenable to detection by dentists and diagnosis by biopsy.



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