KARKINOS



Cancer awareness: Public

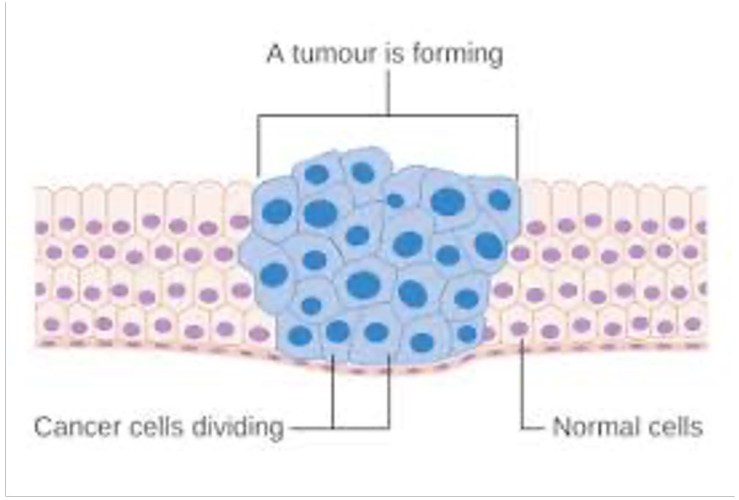
Overview

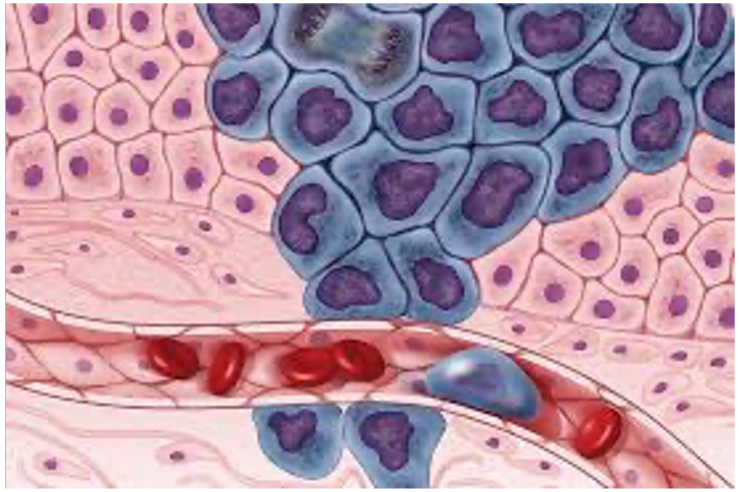
01. Cancer burden
02. Risk factors
03. Prevention
04. Early warning signs
05. Cancer screening
06. Diagnosis
07. Management



What is cancer

- Cells usually divide according to the body's needs
- For some reason, the cells in our body divide uncontrollably and invade nearby tissues or organs.
- Some of the cells that shed from it reach the bloodstream or other organs and cause new growth.





Cancer Statistics

1.32m	1 in 10	<30%
New cancer cases in 2020[1]	Indians will develop cancer during life-time [2]	5-year survival rate less than half of USA

The importance of early detection of cancer

70-80% of cancers are diagnosed late. It can be difficult to treat at that time.

Most cancers can be treated completely if diagnosed early



Cancer Risk Factor



Cancer: Risk factors

Non modifiable factors (5-10%)	Modifiable factors (90-95%)
Gender and age	Physical inactivity, dietary factors, obesity and being overweight
Personal history of cancer	Alcohol use
Family history of cancer	Tobacco
Menstrual problems A. Early Menarche(<12 years) B. Late menopause (>50 years)	Excessive use of hormones
Genetic characteristics	Lack of breastfeeding
	Environmental pollution Occupational carcinogens, Radiation

Cancer: Prevention





Avoidance of tobacco products and minimization of alcohol consumption



BMI to be between 18 and 23

Moderate physical activity equivalent to brisk walking for at least 30 minutes a day increase to 60 minutes later



Consume energy-dense foods and fast foods sparingly

Avoid sugary drinks



Eat at least five portions/ servings (at least 400 g or 14 oz) of non starchy vegetables and of fruits every day

Eat relatively unprocessed cereals (grains) and/or pulses (legumes) with every meal



Regular breast self examination

Mammography should be performed

Woman over the age of 30 should have a Pap smear test

If in doubt, see a doctor immediately

What to eat ..... How to eat



To eat....

Vegetables, leafy vegetables, small fish, whole grains, legumes, fruits

Cut down on.....

Sweets, bakery products, cola drinks, high energy foods, fast food, salty foods, processed / modified meats, red meat

What to eat ..... How to eat

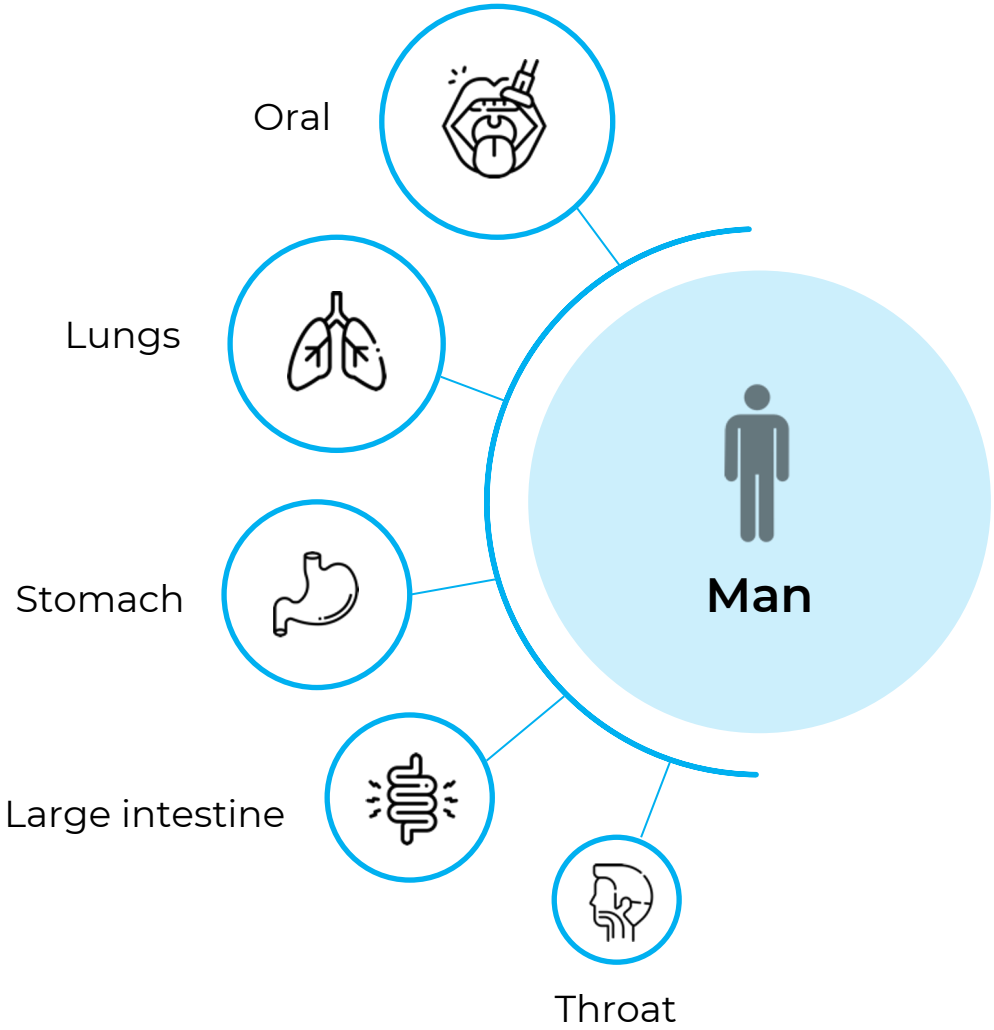
- Half of your daily meal should be fruits, vegetables and leafy vegetables. (Cooked or uncooked)
- A quarter should be rice / wheat / oats / ragi etc.
- The remaining one-fourth should be meat-based foods such as fish / meat / peas, legumes and nuts.

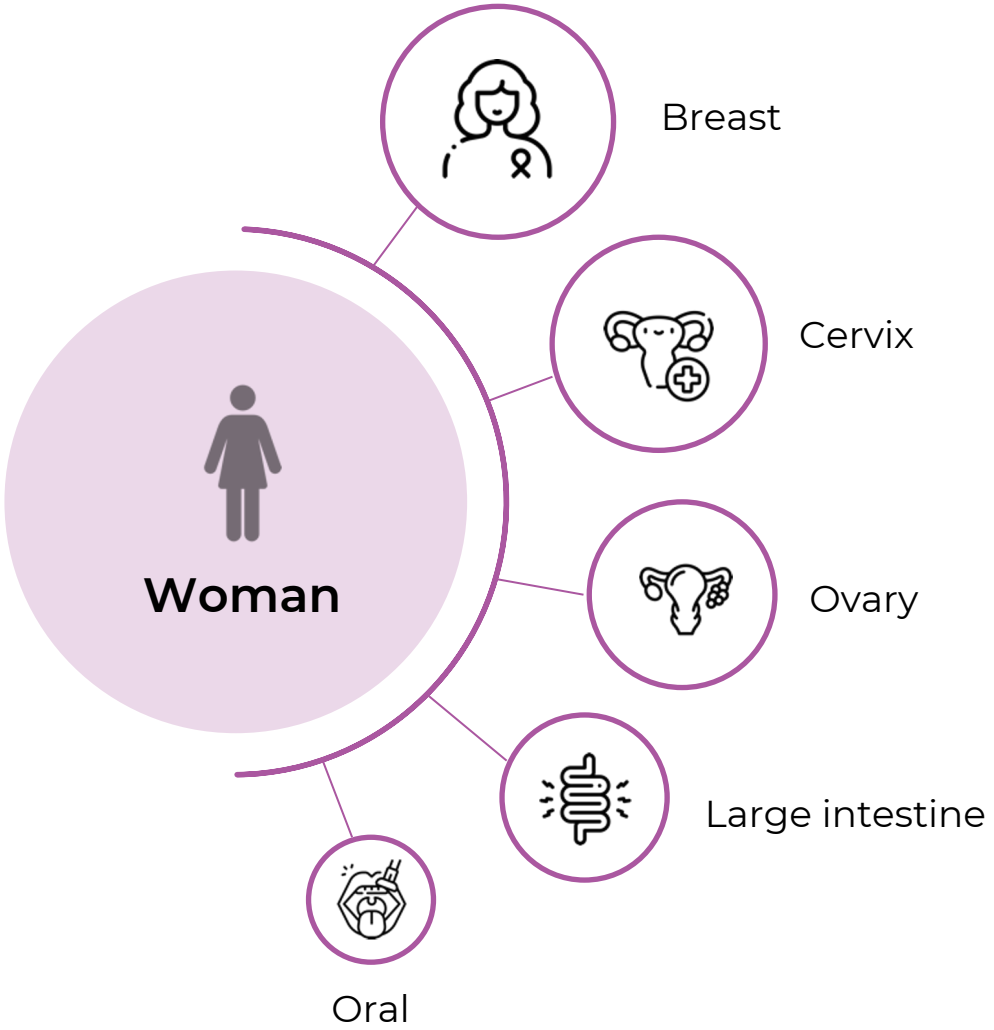


Information about some of the most common cancers.....



Common cancers in India





Breast Cancer

Breast cancer is the **most common** cancer in women in India

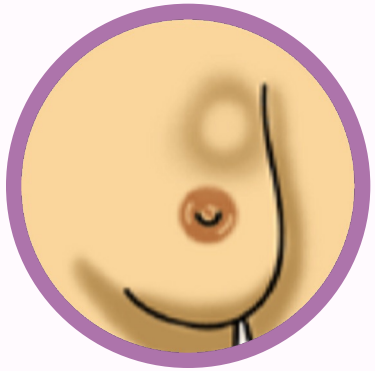
27% of all cancers in women

Age : 30 years; peak at ages **50-64 years**

Cities:**1 in 22** women develops breast cancer

Villages **1 in 60** women develops breast cancer

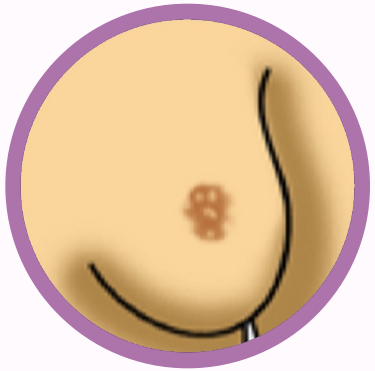




Swelling



Nipple discharge



Nipple retraction



Change in skin colour or texture



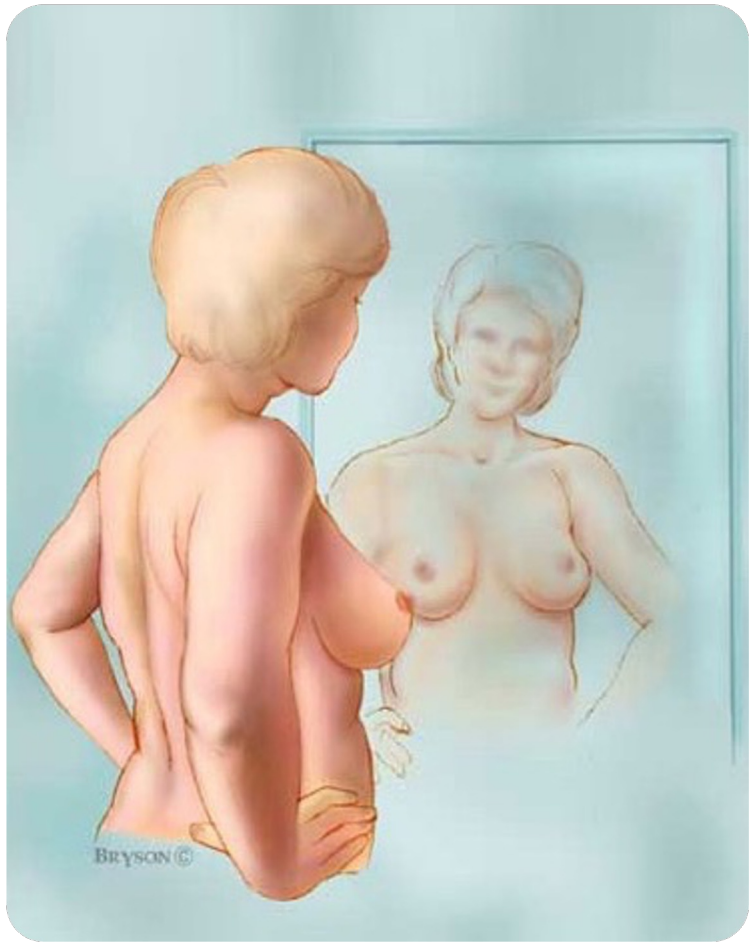
Skin irritation or dimpling



Breast self examination

Step 1

Check for any color, shape or size differences of the breast in front of a mirror



Breast self examination

Step 2

After raising the hand,

check for any of the above

differences



Breast self examination

Step 3

Lie down and check for any lumps or bumps using the palmar aspect of your fingers.

Step 4

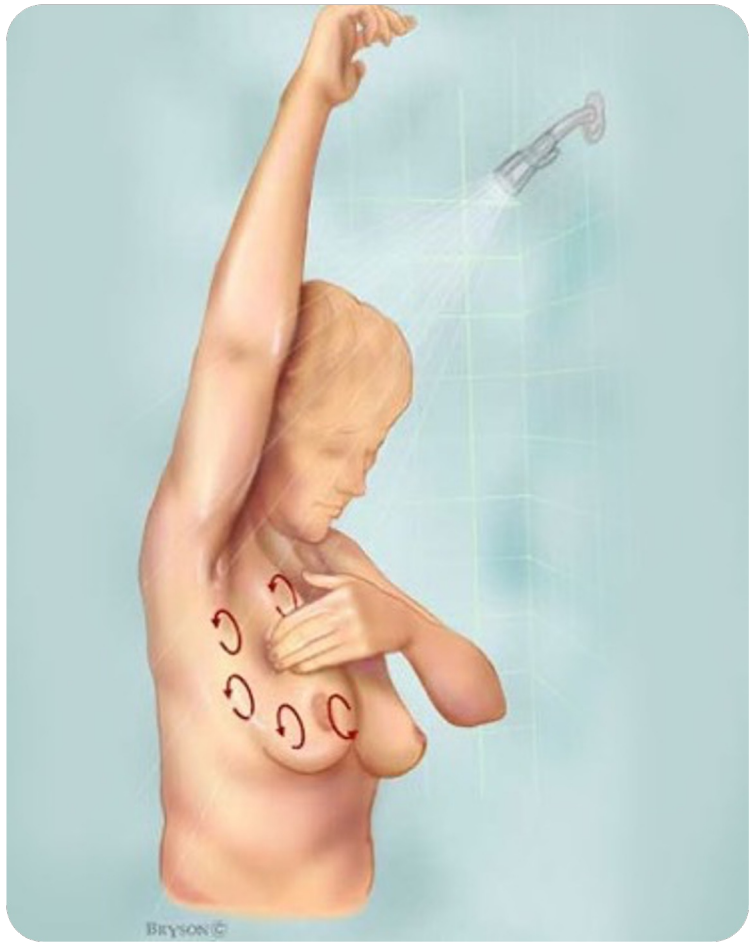
Also, check for any secretions coming from the nipple



Breast self examination

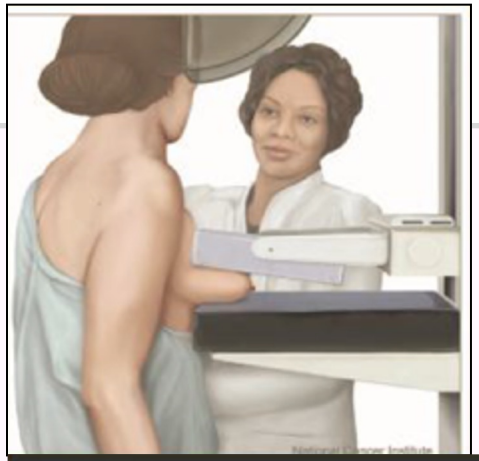
Step 5

Stand up and check for lumps or discharge from the nipple while having a shower

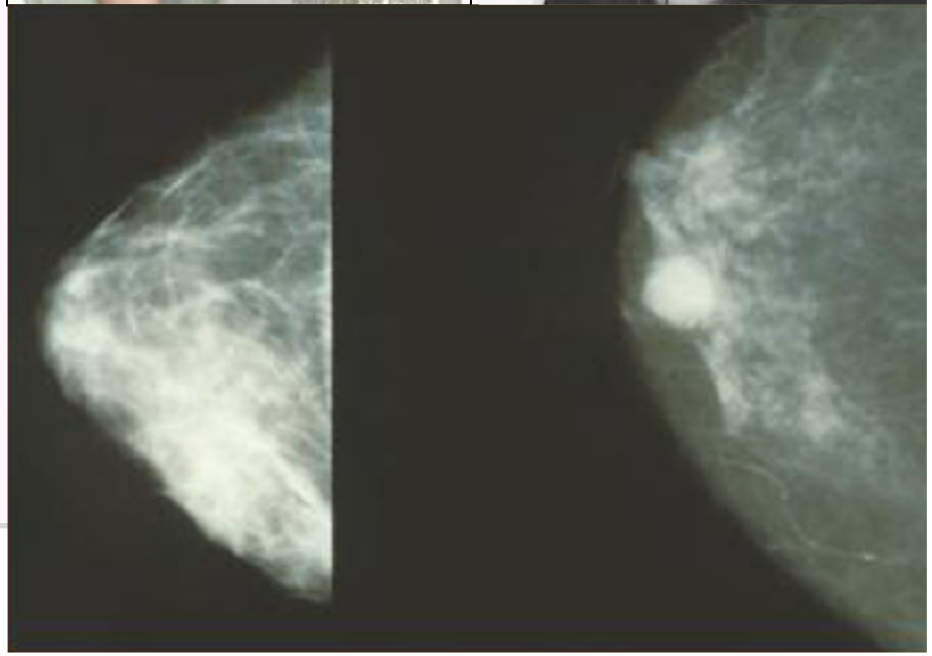


Investigations

- Mammogram
- Ultrasound
- FNAC
- Biopsy







Cervical Cancer

Second most common cancer in women in India **22.86%** of all cancer cases in women

Median age: 38 years (age 21–67 years).

Rural women are at higher risk

The survival chance of a person becomes better if the cervical cancer is diagnosed and treated at earlier stages.

Therefore it is important to avail of **cervical cancer screening.**



Signs and symptoms

Could be asymptomatic so screening is very important

Blood spots or **light bleeding** between or following periods.

Menstrual **bleeding** that is longer and heavier than usual.

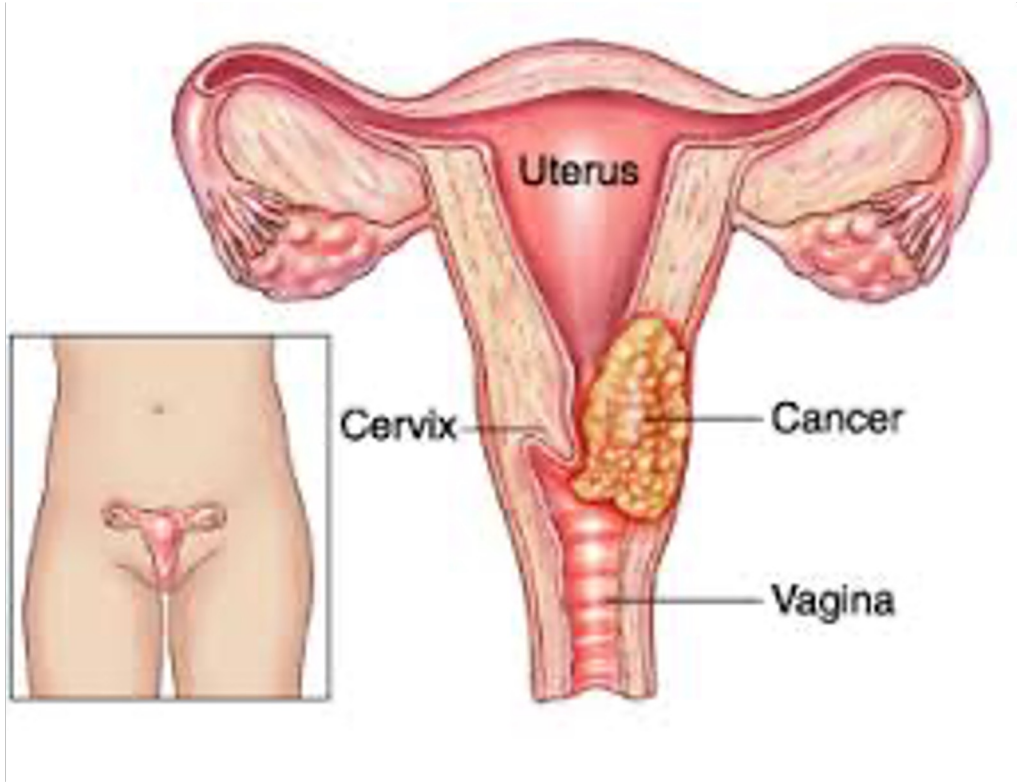
Bleeding after intercourse, douching, or a pelvic examination.

Increased **vaginal discharge.**

Pain during sexual intercourse.

Bleeding after menopause.

Unexplained, persistent pelvic and/or back pain.



WHO Mandate

Elimination of cervical cancer by 2030

Three-pillar strategy



90% of girls under age 15 fully vaccinated



70% of women twice screened

- First screening by age 35
- Second screening by age 45



90% of cases treated

- 90% pre-cancers treated
- 90% of invasive cancers managed

Elimination of cervical cancer by 2030

HPV Screening

- Women between the ages of 30-65
- Samples should be collected 2 days after the menstrual cycle

Clinically Validated

FDA-approved Roche cobas® System

Fully automated diagnosis

Automatic sample analysis and HPV detection

Genotyping

HPV-16 and HPV-18 are detected individually for ease of further management

12 other high-risk HPVs pooled

Internal Quality Control

No false positives or negatives

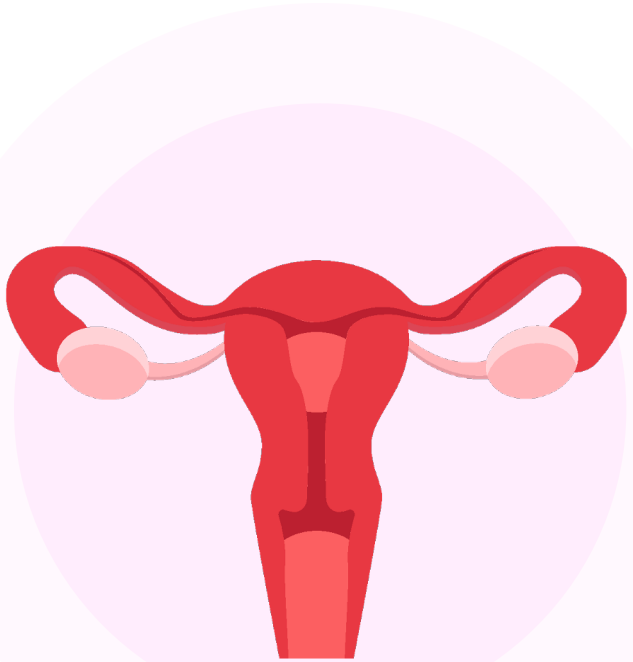
Enhanced accuracy

Detection of > CIN2 lesions

Early detection of precancers

Negative result: Patient is assured that the risk of disease is low for the next 5 years

Screening (PAP test)



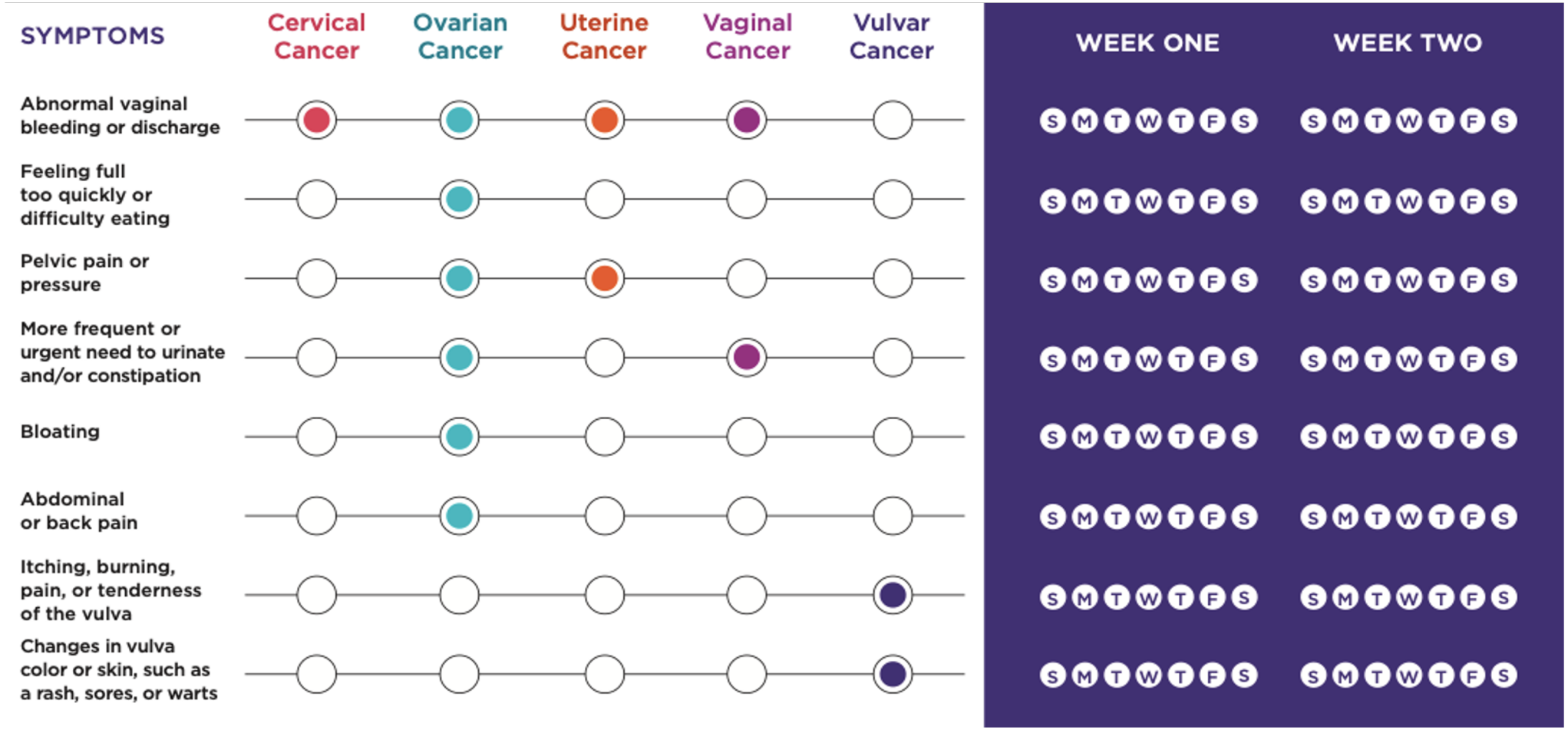
- Sexually active women between ages of 30-65
- Once in three years if the test result is normal
- Mandatory screening at regular intervals
- Pre-cancer status can be detected by screening
- It takes 15-20 years for a pre-cancerous condition to develop into cancer
- There are effective ways to completely cure pre-cancer and early stages of cancer

Other Cancers



Gynecologic cancer symptoms diary

Fill in the circles in the diary below for each day that you have a symptom. And see a doctor if you have bleeding that's not normal for you, or if you have any of the other symptoms for two weeks or longer. It may be nothing to worry about, but find out for sure.



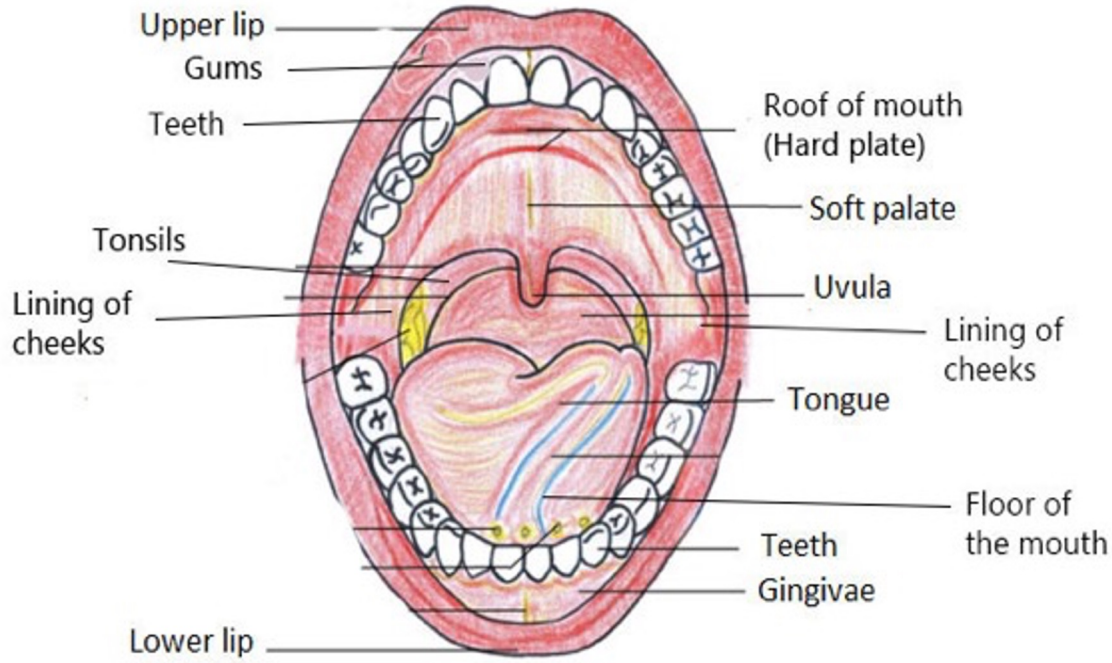
Oral cancer

India has one third of the world's oral cancer cases

30% of all cancers in India

Tongue, Lips, Gums and Teeth Lining of cheeks, Salivary glands, Floor of the mouth

Roof of the mouth (hard palate), Tonsils Uvula



Signs and symptoms



Leukoplakia



Erythroleukoplakia



Oral cancer –tongue

A persistent, white, red or mixed lesion in mouth (> 3 weeks)

A lump in the neck

Chronic pain in the mouth

Tongue / jaw pain

Difficulty chewing or swallowing

Inflammation of the lips or gums

Change in voice

Screening

Wash your hands thoroughly

Explore your mouth with your finger

Tilt your head back; examine the roof of your mouth for any abnormal thickening.

Pull the cheeks on one side at a time, inspect the inner surface and back of the gums.

Pull out your tongue and hold it with finger upwards, inspect and feel the floor of the mouth and look carefully at the tongue.

Feel on both sides of the neck for any lump or enlarged lymph nodes.

If you detect any abnormality, bring it to the notice of your doctor for further evaluation



Lung Cancer

6.9% of all cancers in India

Risk factors

- Smoking
- Indirect smoking
- Asbestos
- Radiation
- COPD / bronchitis / fibrosis / emphysema
- Family history of cancer



Signs and symptoms

- Chronic cough
- Blood in the sputum
- Fatigue
- Shortness of breath
- Chest pain
- Weight loss
- Anorexia
- Co-occurring infections

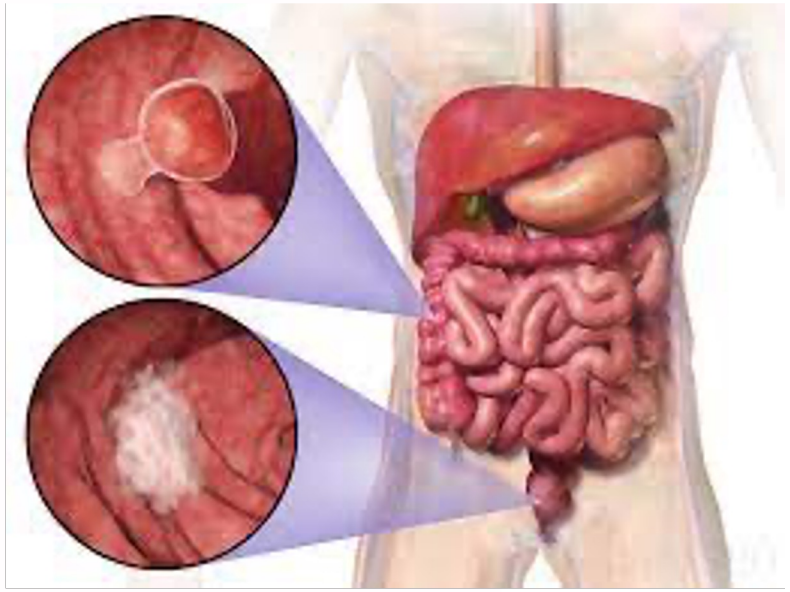


Colon Cancer

6.3% Male 3.7% Female

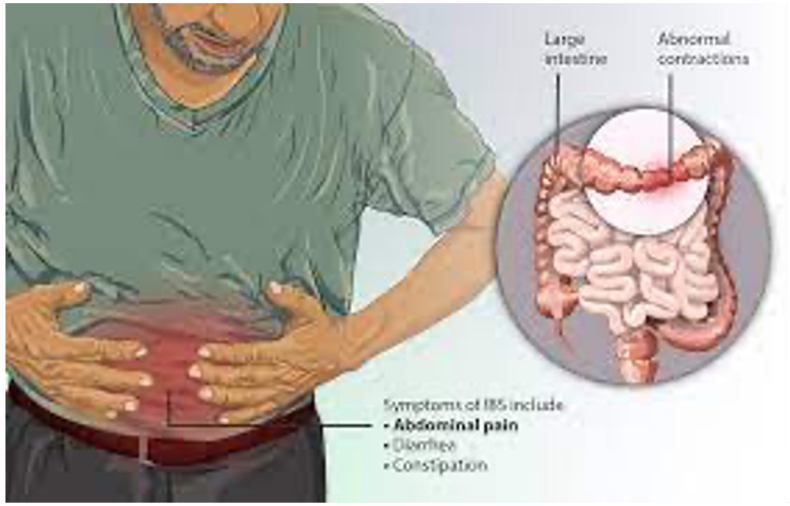
Risk factors

- Smoking
- Alcohol
- Family history of cancer
- Body weight
- Physical activity
- Energy rich foods and fast foods are more commonly used
- Other diseases of the large intestine (polyp, ulcerative colitis, Crohn’s disease)

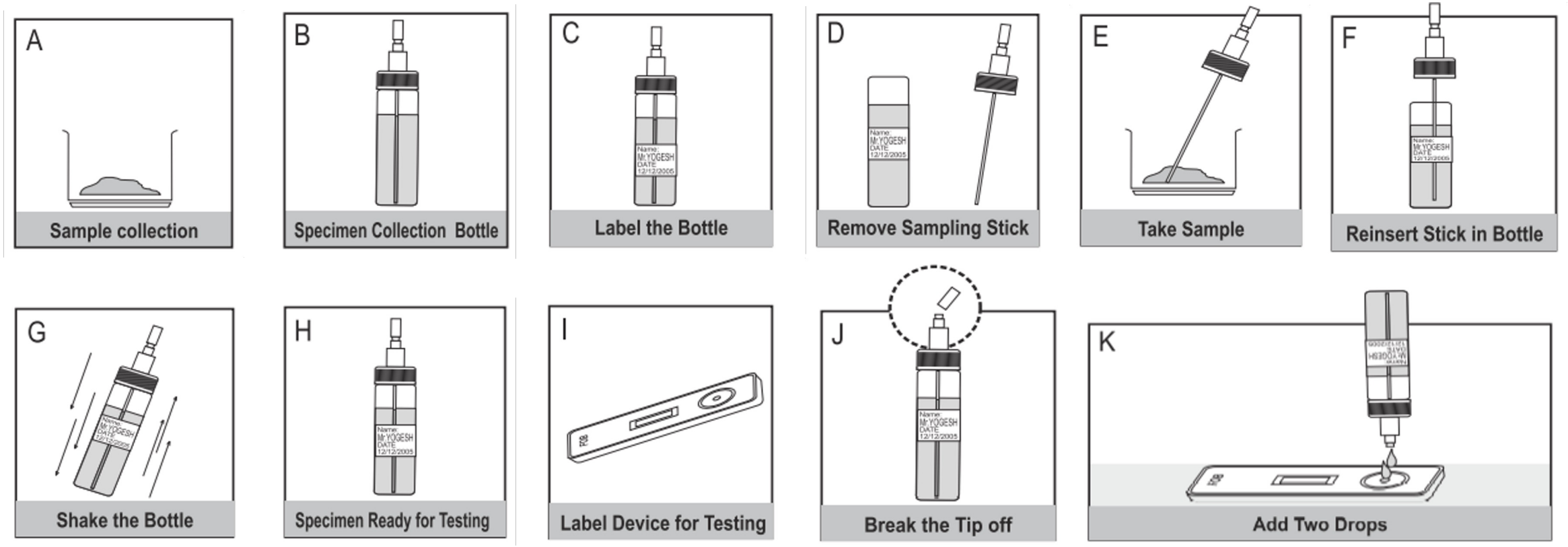


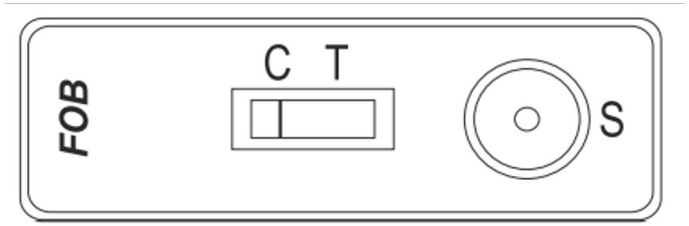
Signs and symptoms

- Blood / mucus in the stool
- Constipation / Diarrhea
- Chronic abdominal pain
- Rapid weight loss
- Tumor in the abdomen



Screening: FIT test





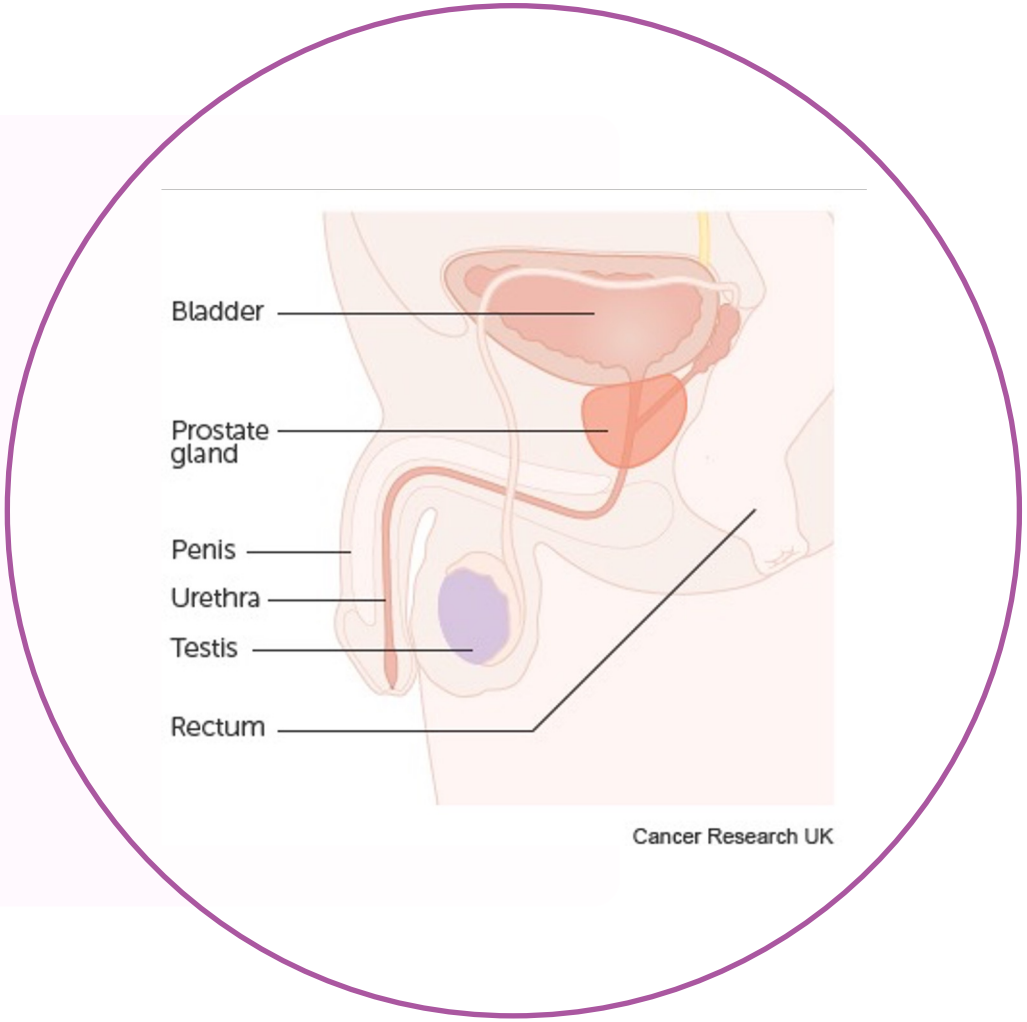
One Band: Negative
Two Band: Positive
No Band: Inconclusive

Prostate Cancer

4.8% are male

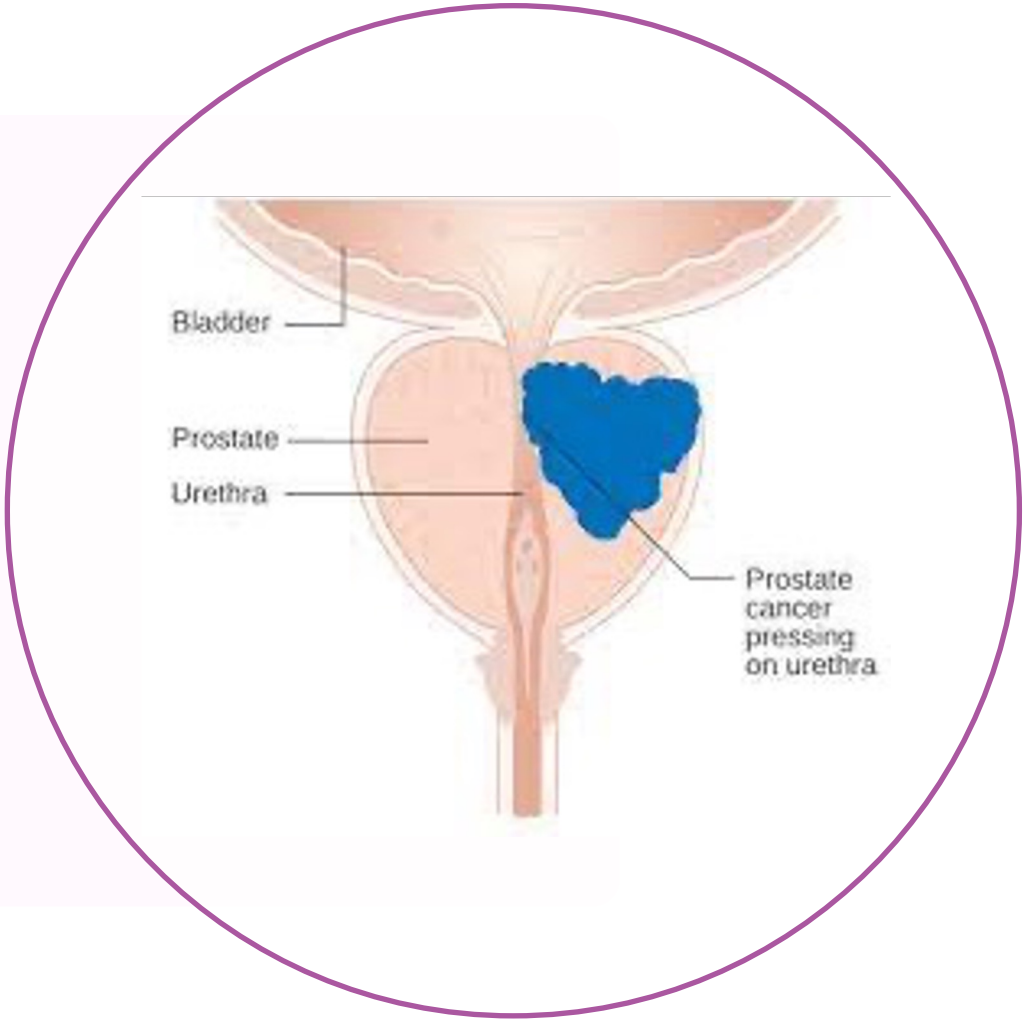
Risk factors

- Age 75-79 years
- Family cancer history and genetics
- Body weight
- Physical activity



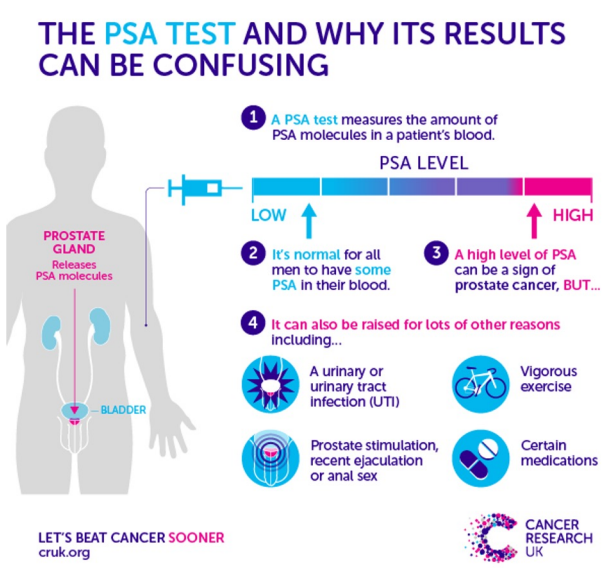
Signs and symptoms

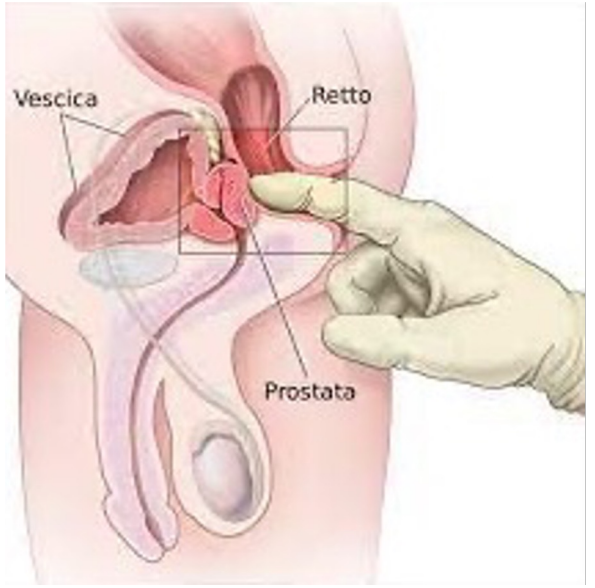
- Frequent urination (at night)
- Difficulty urinating
- Blood in your urine or semen



Diagnosis: Other tests

- DRE
- PSA
- Ultrasound
- MRI
- Biopsy





Treatment

Cancer surgery:

The cancerous part of the body is surgically removed

Radiotherapy:

Radiation therapy. Radiation destroys or inhibits the growth of cancer cells

Chemotherapy:

Drug treatment. Gives pills or injections

Hormone therapy:

Breast cancer, prostate

Bone marrow transplant treatment: Blood cancer

Early vs Late Detection

Survival and stage of diagnosis

Ten-year survival for eight types of cancer combined

81%

Diagnosed early

(STAGE 1 + STAGE 2)

Survival is more than three times higher when cancer is diagnosed early

26%

Diagnosed late

(STAGE 3 + STAGE 4)



Estimated **cost for late detected caes is 1.5 to 2 times higher** than the cost for early-stage cancers.

Karkinos services

- Screening for NCDs and cancer by trained and experienced health staff
- Expert Consultation and Counselling
- Referral coordination virtually and by patient navigators at referred centers
- Digitally empowered care coordination

- Diagnosis using state of the art services
- Host of services which today costs much higher in other hospitals
- Network of Institutions providing treatment at affordable rates
- Expert opinions by Oncologist across Kerala, India and abroad



Karkinos Women Wellness Package

BASIC

RISK ASSESSMENT

BREAST CANCER - Clinical Breast Examination

CERVICAL CANCER - HPV, PAP test

ORAL CANCER - Oral Visual Examination

COLON CANCER - Fecal Occult Blood Test

First level Consultation, Referral Coordination

BREAST CANCER - Mammogram, X-ray
COLON CANCER- Colonoscopy,
CERVICAL CANCER- Colposcopy
LUNG CANCER - Spiral CT
Biopsy, Ultrasound Abdomen and Pelvis, CECT Chest /
Abdomen, Chest Xray, Serum alkaline Phosphatase, PET-CT, Bone Scan, MRI



Karkinos Men Wellness Package

BASIC

RISK ASSESSMENT

ORAL CANCER- Oral Visual Examination
PROSTATE CANCER- PSA

COLON CANCER - Fecal Occult Blood Test
LUNG CANCER - Lowdose CT

First level Consultation, Referral Coordination

COLON CANCER- Colonoscopy
LUNG CANCER - Spiral CT
Biopsy, Ultrasound Abdomen and Pelvis, CECT Chest / Abdomen, Serum alkaline Phosphatase, PET-CT, Bone Scan, MRI, FDGPET- CT



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