

2.7 – Cancer

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1. Cancer cells only divide. They are stuck in mitosis and do not do a job for the organism. Regular cells divide only once in a while and do a job for the organism inbetween divisions.
2. A) No a person cannot inherit cancer. They can; however, inherit a predisposition to getting a cancer. That means that can inherit a greater chance of getting cancer. For example, breast cancer can run in families. Not all women will get breast cancer for sure, but the family will have a higher incidence of breast cancer.

b) No, you absolutely cannot catch cancer from someone.
3. a) A carcinogen is a chemical that can cause cancer. You want to avoid exposure to carcinogens.

b) Tobacco smoke is a carcinogen. So are the following: X-rays (too much exposure), UV, some viruses (HPV), some chemicals in plastic etc.
4. It may be possible to overlook cancer in the early stages because the tumour is too small to see or feel. The patient may not feel tired yet nor losing weight.
5. Diagnostic techniques: -
 - endoscope (sending a camera down the throat or up through the rectum to see intestines)
 - X ray – A mammogram can detect breast cancer. A mammogram is a form of X ray.
 - ultrasound –
 - CT scanning – takes multiple X rays – gives much more detail than an x ray
 - MRI – can see brain cancer
6. Treating
 - Surgery → cut out the tumour.
 - Chemotherapy → strong chemicals than attack cancer and all other rapidly growing cells (like hair and skin)
 - Radiation → Radiation is aimed at the tumour and damages the cancer cells. It also does collateral damage (damages other cells that are healthy)
7. Cancer in the blood means the cancer is travelling around the body and can settle elsewhere and cause more tumours. This is not a good sign for the patient

8. Lifestyle changes

There are things you can do to reduce the chance of getting cancer. You can live a healthy lifestyle. This includes:

- avoiding tobacco smoke (don't smoke & avoid 2nd hand smoke)
- lots of fruits & vegetables and less fatty foods
- eat 'super foods' : tomatoes, carrots, avocados, grapefruit, red grapes, broccoli, garlic, raspberries, nuts, cabbage, figs etc.
- have a healthy weight

9. Cancer screening - women → self-check for lumps in breast (possibly breast cancer), after 18 – have regular PAP tests to test for cervical cancer.

Men → self-check for lumps in testes (possible testicular cancer), PSA blood test to check for prostate cancer.

All people → blood test for colon cancer, skin checks for skin cancer.

10. A doctor can surgically remove the cancer but sometimes it does return. This is because if even a few cancer cells are left behind, they can continue to grow and form a tumour again. It is hard to remove ALL of the tumour.