

Cancer

- Cancer is uncontrolled growth (part of you not growing properly)
- Hyper-proliferative lesion – benign (grow to certain point and then stop)
- Hyper-proliferative lesion – malignant (skin mends together)
- Top 2 ways to die:
 - 1) heart disease 27%
 - 2) cancer 22.9%
- Cancer is more common in men than women (women lead healthier lifestyle)



body

Codons

- 3 letters from the gene to create an amino acid
- Sequence of amino acid determines protein structure
- Mutation is the wrong letter (typo) in amino acid sequence

- Oncogenes are more genetically susceptible to mutations

- Red-haired people are more susceptible to skin cancer because of fair skin
- Most cancer caused by controllable factors (ex. tobacco, diet, obesity, alcohol, lack of exercise)

Tobacco

- Contains 400 toxic chemicals (at low doses) has 4800 chemicals
- Nicotine is addictive
- Carcinogens in tobacco – polonium 210 (comes from ocean to fertilizer to plant)



Lack of Exercise

UV Light Exposure

- Skin cancer

Environmental Exposure

- Low percentage of getting cancer from pesticides
- Most dangerous carcinogens are from nature

X-Rays and Chemo

- Started off as 50% survival rate and now at 60% survival rate
- Cancer hard to target
- Abnormal human protein
- Poor drug -> can't block protein, drug has to 'know' which cells are cancerous
- Normal cells have 23,000 genes only 8 or 10 have changed into cancer cells
- Chemo side effects are death, cancer, extreme nausea, hair loss, immune suppression, sterility
(at least 1 side effect 100% guaranteed)

