NAME: FAKUNLE BANKOLE

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1. Primary Obesity

Primary Obesity is a medical condition in which excess body fat has accumulated to an extent where it becomes harmful to the individual’s health. This is when their Body Mass Index (BMI) is above 30kg/m^2. It is most commonly caused by excessive food intake, lack of physical activity and genetic susceptibility.

1. How does Drug Therapy and Congenital Syndrome affect Secondary Obesity?

Secondary Obesity is caused by pre-existing medical conditions. This is when an individual has a medical condition that causes them to gain weight. Such disorders include endocrine disorders, hypothalamic disorders and some congenital conditions.

-How Drug Therapy affects Secondary Obesity

Some drugs like certain steroids and antidepressants can stimulate the human appetite which causes you to eat more and gain extra weight. Some also affect the body metabolism and slows it down making the body burn calories at a much slower rate. Drugs like the diabetes drug, Pioglitazone, make the body hold onto more salt, which in turn leads to water build up.

-How Congenital Syndrome affects secondary obesity

Hyperthyroidism which is when the thyroid makes less of its hormone the body metabolism slows down. The more severe the syndrome the more weight gained. Some of the weight gained is fat, which may lead to obesity along the line but most of it is fluid.

Polycystic overian syndrome can cause missed or irregular menstrual periods, excess hair growth and weight gain.

1. Aetiology of cancer and its Molecular basis

Cancer is a disease caused by genetic changes leading to uncontrolled cell growth and tumor formation. The basic cause of cancer is DNA damage and genomic instability. Canecer risk factors can be divided into 4 groups

* Biological or internal factors, such as age, gender, inherited defects and skin type.
* Environmental exposure, for instance to radon and Ultra-violent light
* Occupational risk factors, including carcinogens such as chemicals, radioactive materials and asbestos.
* Lifestyle related factors such as tobacco.

Some viruses and Bacteria also cause cancer such as Helicobacter Pylori which causes gastric cancer and Epstein Papilloma Virus which causes inflammation of the throat lymphoid

Molecular Basis

Cancer is a group of diseases characterized by an autonomous proliferation of neoplastic cells which have a number of alterations, including mutations and genetic instability. Cellular functions are controlled by proteins, and because these proteins are encoded by DNA organized into genes, molecular studies have shown that cancer is a paradigm of acquired genetic disease. The process of protein production involves a cascade of several different steps, each with its attendant enzymes, which are also encoded by DNA and regulated by other proteins. Most steps in the process can be affected, eventually leading to an alteration in the amount or structure of proteins, which in turn affects cellular function. However, whereas cellular function may be altered by disturbance of one gene, malignant transformation is thought to require two or more abnormalities occurring in the same cell. Although there are mechanisms responsible for DNA maintenance and repair, the basic structure of DNA and the order of the nucleotide bases can be mutated. These mutations can be inherited or can occur sporadically, and can be present in all cells or only in the tumor cells. At the nucleotide level, these mutations can be substitutions, additions or deletions.