

SUBJECT TEACHER - Ms Nidhi RanaCHAPTER-13 SKIN- The Jack of all Trades

The following lesson is for Class - 8 for the subject of Biology Topic - 'Glands present on the skin' which is covered in Chapter 13 - Skin - the Jack of all trades starting on Page No 127 of your textbook titled Concise Biology - Selina Publications and is being submitted to you on 27.01.2025. So dear childrens kindly open your page no 130 of your text book as I am going to explain you the glands present on the skin.

1. SEBACEOUS GLANDS open into the hair follicle or sometimes directly to the outside. They give out oily secretion called the sebum. Sebum keeps the hair and outer surface of skin water proof and reduces the tendency of skin/hair to become too dry as a result of evaporation. In cold weather, skin becomes dry due to less secretion of sebum and in hot humid weather, skin becomes oily due to increased secretion of sebum.

Problems related to sebaceous glands -

1. PIMPLES. At times due to accumulation of sebum bacterial growth starts. Bacteria takes nutrition from sebum and infects the skin resulting into formation of pimples and boils.
2. ACNE is typically associated with hormone fluctuations during puberty. Sebaceous glands get inflamed (red/swollen) due to hormonal influence. It is normally seen in adolescents or teenagers.
3. BLACK HEADS When an open pore in the skin gets clogged with dead skin cells.

and sebum, it turns black upon oxidation by the air and is called a black head

2 SWEAT GLANDS are coiled tubular glands connected to the surface of the skin by ducts. Each sweat gland is a simple coiled tube consisting of a deeper secretory part and an excretory part which runs upwards to open on the surface. The outer openings on the skin surface are called the sweat pores.

The secretory part of sweat gland absorbs fluid from the surrounding cells and blood capillaries of the dermis and passes the absorbed fluid through the excretory sweat duct to the outer surface of the skin through sweat pore. This fluid is called the sweat. When sweat passes to the skin epidermis, it evaporates and cools the skin.

In hot weather or during exercise sweating occurs in large quantities.

Composition of sweat

Sweat consists of 99% water, 0.2 - 0.5% salts (mainly NaCl) and traces of urea 0.08%.

COLD SWEAT Sometimes sweating may occur in cold weather or under normal conditions. Known as cold sweat. Cold sweat occurs due to psychic influences such as fright or nervousness. Cold sweating may also be accompanied by nausea and severe pain.

Sweating results in loss of body fluids water and essential body salts.

Before going further in the chapter let us take a short break. Answer the following questions during the break.

Q-1 Name the problem related with skin in which sebaceous glands get inflamed due to hormonal influence.

Q2. Name the secretion produced by sebaceous glands.

Q3 Name the opening of the sweat gland on the surface of the skin.

You may pause the lesson for 3 mins now. Break is over children. Listen to the correct answers -

A1 In Acne, sebaceous glands get inflamed due to hormonal influence.

A2 Sebum is produced by sebaceous glands.

A3 Sweat pore is the opening of the sweat gland on the surface of the skin.

Now let us resume the topic with

MAMMARY GLANDS • or Milk glands are modified sweat glands. These glands are present both in males and females. In males mammary glands remain in rudimentary state (i.e. functionless) but in females mammary glands enlarge to form breasts during puberty. After pregnancy the mammary glands in females become active and secrete milk under the influence of reproductive hormones. Milk produced by mammary glands is highly nutritious for the new born babies.

MEIBOMIAN GLANDS are modified sebaceous glands present in the eyes. These glands open on the margins of the eyelids. They give out oily secretion and serves to lubricate the margins of the eyelid and to prevent the overflow of tears.

CERUMINOUS GLANDS - are modified sebaceous glands found in the ear. These glands are found in the auditory canal and secrete wax like substance called cerumen or earwax which lubricates and protects the delicate eardrum from dust particles and germs.

Dear students with this I am ending today's discussion. Kindly go through the given explanation and with reference to the detailed explanation you are required to answer the following home assignment questions in the notebooks.

HOME ASSIGNMENT -

Q1) Answer the following Review questions given at the end of the chapter -13 in your note books.

C Short Answer type

Q No 4 and 5

Q2) Draw a well labelled diagram of Vertical section of human skin.