

MEDICINE

Blackheads and Pimples Infections Not Due to Diet

DISFIGURING blackheads and pimples are not caused by faulty diet. They are due to a local infection of germs ordinarily found on the skin.

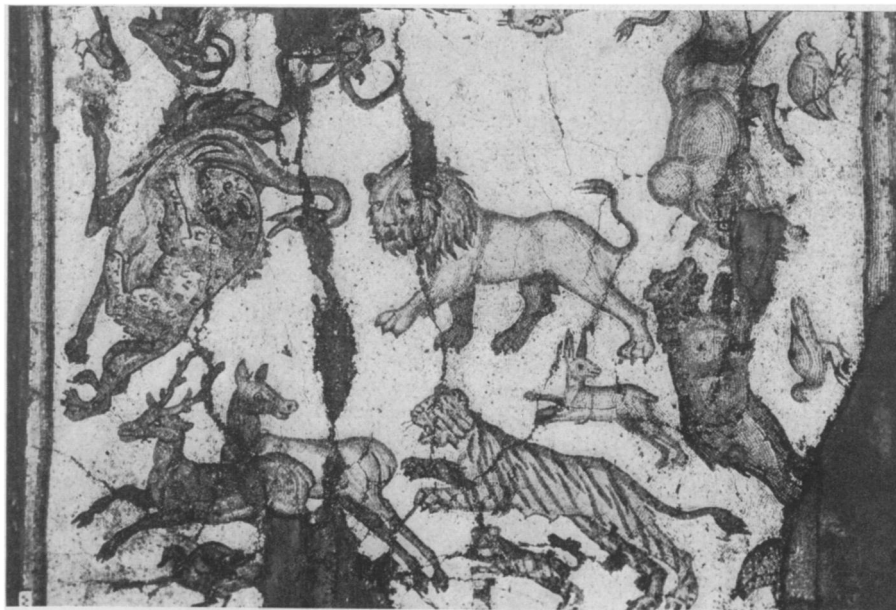
This most common of all skin diseases, acne vulgaris, is attributed by Dr. Lloyd W. Ketron of Johns Hopkins Medical School to micro-organisms growing in the openings of the glands of the skin. The resulting comedones or blackheads usually completely block the flow of the fat glands. If the wall of the gland is then eroded, Dr. Ketron explained in a report to the Southern Medical Association, the organisms are liberated into the tissues along with other foreign material composing the blackhead. There results a pimple, termed by physicians "a superficial nodule or pustule."

If a section of a fresh acne nodule or pimple is stained and inspected with the aid of a microscope, the white blood cells are seen to be filled with the acne bacilli and another organism, the staphylococcus, which is the cause of boils. Acne cannot be produced experimentally, Dr. Ketron found, but injecting these organisms, either alive or dead, into the skin will cause inflamed nodules or abscesses in both man and animals.

There is not much evidence to support the theory that diet is the cause of acne, Dr. Ketron said, but he quoted two other scientists who found that acne improved when they gave the patient injections of sugar solution and a diet high in sugars and starches.

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A Mathematics Museum has been established at Teachers College, in New York.



COMPLETE FLOOR

Excavators were lucky in finding this complete floor of a small room at Daphne, Antioch's famous suburb. The animals and birds that decorate the mosaic show plainly.

ARCHAEOLOGY

Valuable Mosaics Found At Antioch-on-the-Orontes

TWO HUNDRED and sixty mosaics, which throw long-sought light on the early medieval art of the Near East, have been excavated at Antioch-on-the-Orontes, Prof. C. Rufus Morey of Princeton University, chairman of the International Committee in charge of the excavations, said.

Another unusual find is an imperial head in porphyry, a material in which only royal likenesses were done. There

is also a series of busts of the late third and early fourth centuries A.D., a period which did not produce much sculpture; a head of a divinity, probably Dionysos, carved in black granite; some excellent Greco-Roman sculpture from the theater at Daphne and a full-size statue of Hygeia.

The mosaics, one of which was used as a gaming board, depict a wide variety of designs and scenes, including the seasons, animals and birds, human beings and street scenes.

Raising the mosaics without damaging them was a difficult task for the excavators. The pictures had first to be covered with cloth to keep the cubes in place, then chipped loose from their settings and overturned. The plaster bed was then cut away from the backs of the cubes and replaced with reinforced concrete. The largest mosaic pavement which has been uncovered is 21 feet square.

Another Christian church was found this year but has not yet been identified, Prof. Morey said. Last year the expedition uncovered a church, dated 384 A.D., built with an open square from

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which four basilican churches radiate. It is the earliest known church of this design.

Antioch, famed of old for its luxurious splendor, has never before been systematically excavated. The current expedition has been working there since 1932 and now, according to Prof. Morey:

"The topography of the city is beginning to take on form, starting from the famous central street on which Tiberius built his colonnades, and the buildings on the island on the Orontes river, where the excavations commenced, and where the immense circus and the large baths apparently connected with the imperial palace have been laid bare."

He also disclosed that, with the original five-year concession expiring this year, negotiations are being conducted with the state of Syria to renew it for six years, the maximum period allowed by Syrian law for archaeological concessions.

In addition, permission is being sought for excavations in Seleucia, the port for Antioch, an area which would add about one-third to the territory included in the original concession. Located at the foot of Musa Dagh, Seleucia is believed to have many important art objects in an exceptionally fine state of preservation.

Institutions cooperating in the work are the Louvre, the Baltimore Museum of Art, Worcester Art Museum, and Princeton University, and the finds are divided between them.

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Fertility Vitamin Lack May Be Cancer Cause

LACK of the fertility vitamin E may lead to the development of cancer, it appears from experiments with chicks reported by F. B. Adamstone of the University of Illinois to the *American Journal of Cancer* (November).

The results obtained by Mr. Adamstone apply only to chicks and to one type of tissue. They are, however, significant and may furnish an important clue to the cause of at least one type of cancerous disease.

When the chicks were fed for prolonged periods on a diet normal in all respects except for its complete lack of vitamin E, all the chicks died, some of them suddenly, others after an illness. Examination after death disclosed the growth of new, cancer-like tissue

which was destroying the normal tissue of liver, heart, pancreas, gizzard, spleen and lungs.

The tumors belong in the class known as lymphoblastoma and appear very much like the tumors found in typical cases of leukemia in the fowl, though Mr. Adamstone makes no claim that the two conditions are identical.

"The fact that it has been possible by means of a dietary limitation to bring about the development of excessive tissue growths, and to set up changes in the character of certain cells which cause them to assume a destructive relation to their neighbors," appears to Mr. Adamstone "to be significant."

GENERAL SCIENCE

Story of Human Error Is Told by Scientists

THE STRONG accent of all accounts of science's progress is upon the successes. In the long historical vista there are a few notable and often-sung constructive moments. Pythagoras, Aristotle, Archimedes, Roger Bacon, Galileo, Newton, Harvey and the succession of great figures of the modern era are known for great achievements.

This success story of science is justified but it can be argued that the most vital aspect of scientific thought is the surmounting and correcting of error. A new book, "The Story of Human Error" (D. Appleton-Century) edited by Dr. Joseph Jastrow, one of America's pioneer psychologists, parades the errors of science. It glories in them, in a sense. It shows how out of error truth has arisen. Sixteen eminent scientists have recorded in a readable manner the error in various fields of science ranging from astronomy to psychiatry.

Here are some of the to-us-strange ideas men have believed and even defended with their lives:

The earth is flat.

The universe is centered in our own planet.

Eternal fire burns in the depths of the earth.

There are only four elements: earth, fire, water, air.

Blood is warmed by the heart.

Madness is a punishment for sin.

There are, of course, many others, the telling of which makes us appreciative of the fact that has been ferreted out of the overwhelming error of the past.

The explanation of why lack of vitamin E may have a part in causing cancer is to be found in the relation of this vitamin to the process of cell division. This is the process by which new cells are formed. Normal cell division seems to require an abundance of vitamin E. Paradoxically, abnormal cell division has been reported when vitamin E was lacking in the diet.

These observations suggest that deficiency of vitamin E sets up some condition favorable to excessive formation of new cells. Cancer has long been recognized as a condition in which new cells are formed at an excessive rate.

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"The use of intelligence is the highest privilege and the deadliest menace of humanity," Dr. Jastrow comments as the result of editing this book. "By the increase of understanding and organization, man has largely transferred the control of his destiny from Nature to his own decisions. It is a sobering or a despondent reflection that the inability to enlist intelligence in the service of an enlightened, tolerant dispensation may annihilate—as if by a ghastly super-gas-bomb of malign stupidity—the cumulative heritage of thought and enterprise. On the one hand the brilliant triumphs of logical discipline; and, in dismal contrast, the undisciplined warrings of nations over fleshpots and messes of pottage; the resources of Nature under superb orderly dominion, and the contentions of men under unruly strivings of warped judgments. The atmosphere of laboratory and council-chamber seem so alien as to deny their common origin in sapience. In that perspective the story of human error in the sciences may be lowered in significance, compared with the Herculean task of bringing intelligence to correct the follies of ambitions of empire and tyrannical control. When, in the twentieth century, master minds of science may become hounded political exiles, and scientists of distinction sacrifice their loyalty to truth to remain under the protection of perverted authority, the shock compels a revaluation of pen and sword."

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