

ANTHROPOLOGY

Lose Fat in Hot Weather

Anthropologists' meeting reveals that fat is lost in summer, ancient Greeks had "holes in their heads," and age cannot be determined from closure of skull bones.

➤ YOU MAY not realize that you lose fat in summer heat, if you trust the reading on the drug store, or your bathroom, scales as a measure of your fatness.

The fact that you do lose fat and why the scales do not show it were explained by Dr. Russell W. Newman, Army HQ Quartermaster Research and Development Command, at the meeting of the American Association of Physical Anthropologists in Philadelphia.

Dr. Newman separated the gross body weight of some 2,000 young American men into two factors. First was the weight of the bones, body fluids and muscles. This is what Dr. Newman calls the fat-free weight or heat-producing mass of the body.

Second factor is the body fat as represented by the rolls of fat some people are able to pick up between their fingers, including the "inner tube" around the waist and the double or triple chins under the jaw line. This is a heat-holding layer that surrounds the fat-free mass.

The heat-holding fat layer goes down as the temperature goes up in summer, Dr. Newman found. The heat-producing fat-free weight has a tendency to go up as the temperature sinks in winter.

Indians Not So Healthy

➤ THE POPULAR idea that the ancient Indian was an extremely healthy and strong person was exploded by a report by Dr. Marcus S. Goldstein of the U. S. Public Health Service of the condition of the bones of early Indians of Texas.

Three out of 10 adult skulls and four out of 10 adult skeletons showed signs of diseased conditions, defects or injuries, including fractures.

Skulls Were Porous

➤ THE ANCIENT Greeks literally had "holes in their heads," it is indicated by a report to the association. But the modern disease syphilis was unknown among them.

Examination of over a thousand Greek skulls showed that before 2,000 B.C. one out of every four Greeks suffered from osteoporosis of the skull bones, a condition in which there are abnormal spaces in the bones. Dr. J. Lawrence Angel of Jefferson Medical College in Philadelphia reported the findings.

The porous bone condition gradually decreased, however, until by Classical times it had completely disappeared. Later it increased again to a peak of 30%.

Like modern American young people, the Greeks gained in body size with succeeding generations into historic times. But there was no following drop in size later.

The agonizing pains of arthritis plagued the ancient Greeks, especially the men. Incidence of the disease among men dropped, however, from 30% to 15%. It remained steady at a lower incidence among women—10% to 12%.

Arthritis of the spine dropped from a high of 61% to 42% among men, but for the women it remained at a lower figure, 40%.

Explanation for this lower figure for women may be found, Dr. Angel said, in the fact that women of that day had a five-to-eight-year shorter life span than men. They died before they developed arthritic backs. Reason for this may be in a high childbirth mortality.

The ancient Greeks had no syphilis, their bones showed.

Skull Test Unreliable

➤ EXPERTS ATTEMPTING to identify a body from the condition of the skeleton can no longer rely on the growing together of the bones in the skull to give them the age of the dead person.

In the past, it has been generally accepted that by the age of 35 the bones would be

completely grown together. This is an error, Dr. W. Montague Cobb of Howard University School of Medicine, Washington, D. C., told the meeting.

Examination of over 2,000 skulls showed that the closure is complete at 35 in only 21.4% of white men and 36.5% of Negro men. Closure is complete in a slightly higher percentage of women.

Not only is the bone closure not always complete at the age of 35, it is usually not complete at the age of 61. Dr. Cobb found closure complete in only 36.5% of male whites at 61 years, 40% of female whites, 45.9% of Negro males and 49.4% of Negro females.

Privation Makes Dwarfs

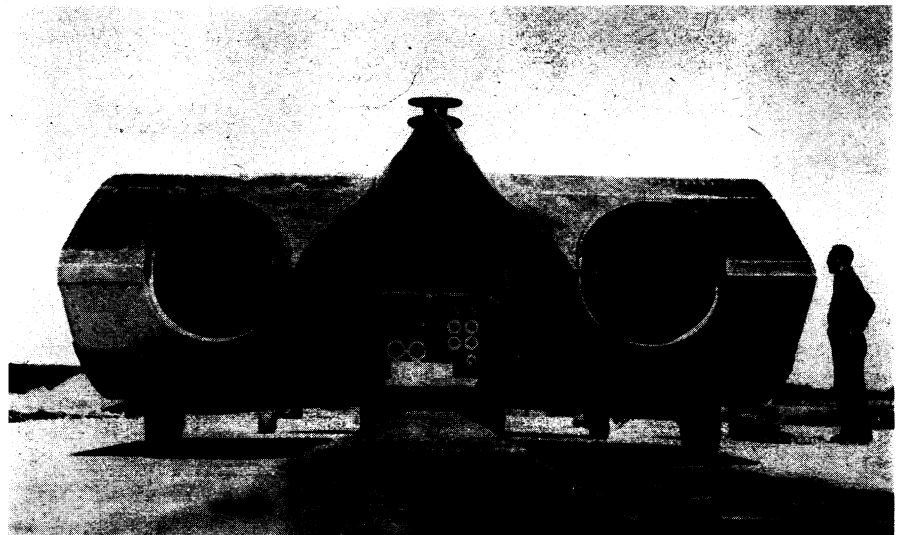
➤ SEVERAL GENERATIONS of miserable living conditions can make a people into dwarfs, Rev. Dr. Martin Gusinde, anthropologist of Catholic University, Washington, told the meeting.

That is what Dr. Gusinde found when he went to explore rumors of a race of pygmies living high in the mountains between Venezuela and Colombia. The rumors of South American pygmies have persisted since the first conquerors explored the region in 1520.

The people are small, Dr. Gusinde said, but they are not true racial pygmies. These Indians, named "Yupa," live in very small communities called "rancherias," consisting of from two to 15 individuals. It sometimes happens that the average height of the adult men of a rancheria is four feet eleven inches or less.

But even if it should be found that all the Yupas are as small as that, they could not be considered as true pygmies, Dr. Gusinde concluded. Their small size is a result of the deprivation in their living conditions.

Science News Letter, April 16, 1955



TESTS BRAKES—This jet-powered car is used in the development of aircraft arresting gear. The 10,000-pound combined thrust of two Allison J33-A8 engines drive it at high speeds along a 5,000-foot track. The tests are conducted by the All American Engineering Co., Wilmington, Del.