

DENTISTRY

Ammoniated Dentifrices

➤ A REPORT questioning the value of ammoniated dentifrices for reducing tooth decay has appeared in the *Journal of the American Dental Association* (March).

It is based on extensive research studies made by Dr. B. G. Bibby, director of the Eastman Dental Dispensary at Rochester, N. Y., and Lt. R. R. Hawes of the Air Force Dental Corps at Randolph Air Force Base, Tex.

"There is no satisfactory evidence—notwithstanding the advertising claims—that a dentifrice with a high urea content reduces dental decay," they said.

Ammoniated dentifrices are tooth pastes and powders containing the ingredient urea to which the compound dibasic ammonium phosphate is usually added.

To evaluate the effectiveness of ammoniated dentifrices, the dental scientists conducted a one-year clinical and bacteriological study among school children between the ages of seven and 13.

In the clinical study, an experimental group of 196 children brushed their teeth with an ammoniated dentifrice, while 176 children served as a control group and

brushed their teeth with a neutral or cosmetic dentifrice. Neutral or cosmetic dentifrices are those with conventional cleansing properties.

All the children were instructed in a proper toothbrushing technique, which was carried out under supervision at the beginning of each school day and independently at home in the evening.

The investigators found that during the test period, the children who used the ammoniated dentifrice were found to develop tooth decay at approximately the same rate as those using the non-ammoniated type.

Drs. Bibby and Hawes said that their studies indicated that ammoniated dentifrice had little effect on the presence of lactobacillus in saliva. A count of these bacteria in saliva has long been used to measure decay activity. They concluded:

"The negative clinical observations and laboratory findings . . . offer adequate grounds for questioning the soundness of the concept that the ammonium ion dentifrices have any value in the prevention of dental decay."

Science News Letter, March 14, 1953

PSYCHOLOGY

Telling Children's I.Q.

➤ MANY A mother, discussing her child with neighbors or relatives, will glibly speak of Junior's "I.Q." She may know that the letters stand for intelligence quotient and that tests were given to determine Junior's I.Q. But her knowledge very often stops there.

Even Junior's teacher may find psychological tests surrounded to some extent with an aura of mystery, Miss Lilian Mould, herself a teacher, states in a report to *Understanding the Child* (Jan.), publication for teachers of the National Association of Mental Health.

From her experience as intern in clinical psychology at the Central New Jersey Mental Hygiene Clinic, Miss Mould gives the following explanation of the Stanford Binet Intelligence Test, widely used to determine a child's I.Q.:

"It consists of a group of tests for each age level. The eighth-year level, for instance, has six tests to be administered, the ninth has six others, somewhat different, and of course more difficult. The test covers adult levels also. In administering the Stanford Binet, a 'basal level' has to be established. This is the year level on which the child performs all tests successfully. From the basal the child works up until he reaches the year level where all tests are too difficult. This is called the 'ceiling.' The score achieved yields a mental age, and from this and the chronological age an intelligence quotient is determined.

"If basal and ceiling levels are both very close the child's chronological age, it can usually be assumed that he is 'running on all cylinders,' and is capable of average achievement.

"However, often a child can do only a few tests on many levels; his basal score may be several years lower than his life age, and the ceiling several years above. When this happens, the 'scattering' of the results indicates that something is interfering with consistent and effective mental functioning—and that 'something' is often an emotional problem."

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NEUROLOGY

Dreamless Nightmare Gives Fear Physical Basis

➤ STUDIES OF a terrifying and primitive form of fear, like "a nightmare without the dream," have given scientists the foundations of a physical basis of fear.

The studies were reported in Pebble Beach, Calif., at a joint meeting of the San Francisco Neurological Society and the Southern California Neurosurgical Society by Dr. Donald Macrae of London, visiting neurologist at the University of California School of Medicine.

This primitive fear, apparently rare in human experience, has been observed in 42 patients with epilepsy. Symptoms and brain

wave patterns, among other evidence, suggest that the fear arises from the temporal lobe of the brain. Thus physicians may say, for the first time, that a form of fear is experienced, like the senses, in a specified part of the brain.

A "horrible smell" which accompanies the fear is especially significant, Dr. Macrae thinks. The sense of smell is primitive and known to have its roots in the medial aspect of the temporal lobe, the oldest and most primitive part of the brain structurally and evolution-wise.

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The average parachute should last eight and a half years.

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