

MEDICINE

# Dental Decay May Depend on Physical Quality of Diet

**S**CORE ONE for the tooth brush and tooth paste manufacturers. The latest theory about what makes teeth decay upsets the explanation of food experts and goes back to the idea that teeth decay when food stays in them and decomposes, it appears from a report to the magazine *Science*, by C. A. Hoppert, P. A. Webber and T. L. Canniff of Michigan State College

What you eat probably affects the condition of your teeth, but it is the physical quality and consistency of food, rather than its chemical composition, that counts, these investigators think.

"The elimination from the diet of foods that are difficult to remove from the teeth would perhaps go far in wiping out dental caries," these investigators stated.

The foods that have plenty of vitamins and calcium, the so-called protective foods, also happen to be foods that do not stay in the teeth long. Milk, for instance, and other dairy products may owe their tooth strengthening properties as much to the fact that they don't stick in the teeth as to their lime and vitamins.

The fact that improvement in the condition of the teeth follows a change in diet to include more of these foods may be simply because the increased amount of "protective" foods necessarily reduces the consumption of the foods that tend to remain in the teeth and decompose and cause decay.

The Michigan investigators base their theory on observations on rats. In the first place, these animals do not often develop caries even when fed on

diets lacking in factors supposedly essential for tooth development. But normal animals fed on the stock laboratory ration, designed to promote normal dental development and maintenance, were found with decaying teeth.

Further investigation showed that particles of the cornmeal, which formed a large part of the diet, lodged in the lower molar teeth. In a few weeks a small cavity appeared where the impaction of cornmeal had been. This encouraged more impaction of the cornmeal particles and more decay.

On the other hand, rats that were being fed a diet low in calcium and vitamins, but with oatmeal substituted for the cornmeal, had no decayed teeth, even though the teeth were relatively soft in structure. When oatmeal was substituted for corn meal in the stock ration, no decays were seen.

The size of the particle of cornmeal affected its tendency to lodge in the crevices of the teeth. Finely ground cornmeal that passed through a sixty-mesh screen had very little of this tendency, but forty-mesh screened cornmeal did stick in the teeth.

"It would appear desirable to give some attention in human dental studies to the physical properties of individual foods and of food mixtures with respect to their tendency for retention by the teeth," the investigators concluded. "It is apparent from the results that a diet considered adequate merely from the chemical point of view is not necessarily a guarantee against dental decay."

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ENGINEERING

## Design of Automobiles May Change Radically

**A**UTOMOBILE design is in for a radical change, recent reports to the Society of Automotive Engineers indicate. Through all the years of automobile history the cart has been before the horse, many engineers think.

Here is what they say is going to happen: The engine will be put at the rear, possibly crosswise; the body will be streamlined with a rounded blunt nose at the front tapering to a point at the rear.

Result: Because of reduced wind resistance less power will be required and less gas used; a car of the same length will have more passenger room; the driver will be at the front where he can see better; the engine and transmission will be more compact and accessible.

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