# REFINED FOODS Take Toll of Formerly Healthy Natives

## Modernized Melanesians Exemplify Degeneration

Since our quest was to gather data that will throw light upon the cause of modern physical degeneration among human racial stocks in various parts of the world, it became necessary to include for study various groups living in the hot sultry climates of the tropics. Again it was desirable to obtain contact with both highly isolated and, therefore, relatively primitive stocks for comparison with modernized groups of the same stock. In order to accomplish this an expedition was made in 1934 to eight archipelagos of the Southern Pacific to study groups of Melanesians and Polynesians. The Melanesians described here were living in New Caledonia and the Fiji Islands.

## Basic Causes

If the causative factors for the physical degeneration of mankind are practically the same everywhere, it should be possible to find a common cause operating, regardless of climate, race, or environment.

Owing to the vast extent of the Pacific waters and the limited number of transportation lines, it became very difficult to arrange a convenient itinerary. This, however, was finally accomplished satisfactorily . . These island groups were all populated by different racial stocks speaking different languages. The movements from archipelago to archipelago were made on the larger ships, and between the islands of the group in small crafts, except in the Hawaiian Islands where an aeroplane was used.

#### Ceremonies

The program in each group consisted

in making contact with local guides and interpreters. They had generally been arranged for in advance by correspondence with government officials. By these means we were able to reach isolated groups in locations quite distant from contact with trade or merchant ships. To reach these isolated groups often required going over rough and difficult trails since most of the islands being of volcanic formation are mountainous.

## **Collecting Data**

On reaching the isolated groups our greetings and the purpose of the mission were conveyed by our interpreters to the chiefs. Much time was often lost in going through necessary ceremonials and feasting . . . When these formalities were once over and our wishes made known, the chiefs instructed the members of their tribes to carry out our program for making examinations, recording personal data, making photographs, and collecting samples of foods for chemical analysis. The food samples were either dried or preserved in formalin.

#### **Extensive Investigations**

The detailed records for every individual included data on the tribe, village and family, his age, previous residence, physical development, the kinds of foods eaten, the physical condition of every tooth, including presence or absence of cavities; the shape of the dental arches; the shape and development of the face; and detailed notes on divergencies from racial type. Special physical characteristics were photographed. A comparison was made of these factors for each of the more isolated members of the same tribe and those in the vicinity of the port or landing place of the island. Through the government officials detailed information was secured, usually in the form of the annual government statistical reports, showing the kind and quantity of the various ingredients and articles that were imported, and similarly those that were exported. Contact was made in each island group with the health officers, and the studies were usually made with their assistance.

## **Isolated Peoples Healthy**

In many instances the only contact with civilization had consisted of the call of a small trading ship once or twice a year to gather up the copra or dried coconut, sea shells and such other products as the natives had accumulated for exchange. Payment for these products was usually made in trade goods and not in money. White flour and white sugar comprised 90 per cent of the total value,

The scientific studies of Weston A. Price show clearly and dramatically the dental and physical deterioration of healthy primitives when they adopt the processed foods of modern civilization.

To acquire this material, Dr. Price traveled over one hundred thousand miles to places so remote that he could reach some of them only with special assistance from officials of the region, who arranged plane, or devious packtrip or native river craft transportation. He investigated primitive racial stocks including both isolated and modernized groups in Switzerland, the Hebrides, Alaska, North, West and Central Canada, Western United States and Florida. on eight archipelagos of the Southern Pacific, Eastern and Central Africa, Australia, New Zealand, Peru and in the Amazon Basin.

while wearing apparel or material accounted for the other 10 per cent.

#### Damage From Modern Foods

The physical changes which were found associated with the use of the imported foods included the loss of immunity to dental caries in practically all of the individuals who had displaced their native foods very largely with the modern foods. Dental caries were much worse, however, in the growing children and motherhood group due to the special demands of these individuals. Much suffering is brought on by modernization. Abscessed teeth often cause suicide.

## Formerly Vigorous

The early navigators who visited these South Sea Islands reported the people as being exceedingly strong, vigorously built, beautiful in body and kindly disposed. There were formerly dense populations on most of the inhabitable islands. In contrast with this, one now

Because the same degenerative changes are taking place in our own families and among the people about us, we believe it is imperative that everyone see this correlation, in order to understand that modern processed, chemically treated foods, raised on depleted soils, lead to human degeneration in its many complex forms.

Dr. Price has bequeathed his entire scientific collection, including about 15,000 photographs, 4000 hand-colored slides, the book which records many of his scientific observations, a classic in its field, "Nutrition and Physical Degeneration," to the American Academy of Applied Nutrition, and the illustrated lecture film strip.

From this inspiring book, this material has been taken, and from time to time other chapters will be reviewed, with permission from the Weston A. Price Committee of the A.A.A.N.



Primitive Melanisians have curly hair, excellent bodies, regular teeth, very little dental caries. Foods -- seafood, roots, nuts and fruit.

finds that on many of the islands the death rate has come to so far exceed the birth rate that the very existence of these racial groups is often seriously threatened.

## **Diet-Caused Degeneration**

The Island of New Caledonia is one of the largest of the Pacific. It is situated in the vicinity of 23 degrees south latitude and 165 degrees east longitude. The New Caledonians are pure Melanesian stock. They are broad shouldered, very muscular and in the past have been very warlike . . . A comparison of the individuals living near the ports with those living in the isolated inland locations shows marked increase in the incidence of dental caries.

For those living almost exclusively on the native foods the incidence of dental caries was only 0.14 per cent; while for those using trade foods the incidence of dental caries was 26 per cent. The splendid facial and dental arch development of these quite primitive Caledonians is shown in Fig. 28 (similar to those in illustration).

## Fiji Islanders

The Fiji Islanders are similar in physical development and appearance to the



Modernized Melanisians have rampant dental decay on modern foods of commerce (white flour, white sugar, jellies, etc.). Pain from tooth-

New Caledonians, and like them are largely, if not wholly, Melanesian in racial origin. In the past, they have been excellent warriors. They are British subjects, and where they have had supervision, in the districts near the ports and on those islands on which sugar plantations have been established (providing modern foods), they have suffered very greatly from the degenerative diseases.

### **Tribal Dietary Wisdom**

On Viti Levu, one of the larger islands of the Pacific Ocean, my guide told me that it had always been essential, as it is today, for the people of the interior to

ache was reported as the only cause of suicide. They have no dentist (there had never been need for one).

obtain some food from the sea, and that even during the times of most bitter warfare between the inland or hill tribes and the coast tribes, those of the interior would bring down during the night choice plant foods from the mountain areas and place them in caches and return the following night and obtain the sea foods that had been placed in those depositories by the shore tribes. The individuals who carried these foods were never molested, not even during active warfare. He told me further that they require food from the sea at least every three months, even to this day. (This is

(Continued on next page)

# Refined Foods (Cont'd)

an example of inherited tribal wisdom, closely adhered to.)

## Seafoods Prized

... Another animal food was that from coconut crabs which grow to a weight of several pounds. At certain seasons of the year the crabs migrate to the sea in great numbers from the mountains and interior country. They spend about three days in the sea for part of their reproductive program and return later to their mountain habitats. Their routes of travel are as nearly as possible in straight lines. At the season of migration, large numbers of the crabs are captured for food. These crabs rob the coconut trees of fruit. They climb the trees during the darkness and return to the ground before the dawn. They cut off the coconuts and allow them to drop to the ground. When the natives hear coconuts dropping in the night they put a girdle of grass around the tree fifteen or twenty feet from the ground, and when the crabs back down and touch the grass they think that they are down on the ground, let go their hold and are stunned by the fall. The natives then collect the crabs and put them in a pen were they are fed on shredded coconut. In two weeks' time the crabs are so fat that they burst their shells. They are then very delicious eating. Fresh water fish of various kinds are used where available from the mountain streams. Land animal foods, however, are not abundant in the mountainous interior, and no places were found where the native plant foods were not supplemented by sea foods.

Our first visit to the Fiji Islands was in 1934, and the second in 1936. On our first trip we had much personal assistance from Ratu Popi, hereditary king. He was very solicitous for the welfare of his people whom he recognized to be rapidly breaking down with modernization.

## Tooth and Arch Failures

Another important phase of our studies included a critical examination of the facial form and shape of the dental arches which include very definite and typical changes represented by the narrowing of the features and the lengthening of the face with crowding of the teeth in the arch.

The members of the Melanesian race living on the Fiji Islands of the Pacific, whether volcanic or coral in origin, have developed a very high immunity to dental caries and well formed faces and dental arches. Their native foods consisted of animal life from the sea eaten with plants and fruits from the land in accordance with a definite program of food selection. In their primitive state only 0.42 per cent of their teeth were attacked by tooth decay. In the modernized groups this incidence increased to 30.1 per cent. The change in the nutrition included a marked reduction in the native foods and their displacement with white-flour products, sugar and sweetened goods, canned foods and polished rice. In the succeeding generations after the parents had adopted the modern foods, there occurred distinct change in facial form and shape of the dental arches.

## NUTRITION AND PHYSICAL DEGENERATION

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