influences of saliva on dental caries, as well as carbohydrate degradation and tests for caries activity, are appraised. The sixth section, also by Gerald Cox, contains a thorough review of the discovery of fluorine in biological tissues and fluids, the relation of this element to dental caries, and its use to reduce caries prevalence.

In the final section James H. Shaw reviews the extensive studies on nutrition. He includes surveys of the relation of diet to caries in various population groups, the possible influence of pregnancy, and the etiologic and preventive role of various nutritional factors.

The literature reviewed in each of these sections is classified into well-defined subsections, and the material is arranged in historical sequence. Brief, helpful summaries and conclusions expressing the author's opinion of the evidence reviewed usually follow each subsection. They express biased points of view and indicate an effort to reanimate the vital theory of dental caries, which holds that caries is dependent upon metabolic changes within the tooth.

Some scientists seem to believe that dental caries cannot be explained on a biological basis unless metabolic changes occur within the tooth substance. Too often, the contributors to this book discount or overlook simple explanations, in the false belief that science must be complex. It is obvious that there must be a biological basis for caries because the process stops after death, and teeth, even the carious ones, become the longest preserved anatomic structures. On the other hand, caries has not been found in completely unerupted teeth. The oral environment of the tooth can be influenced as much or more by metabolic activity than the tooth substance itself. It is entirely sound for scientists to reason on the basis of available evidence that dental caries is primarily a local or environmental process. After all, the disease does begin on the exterior surface of the tooth. The *Survey* provides an exceptionally comprehensive source of information for students and investigators concerned with dental caries. It is unfortunate, however, that the treatment is biased in favor of one school of thought.

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