

The presence of an artificial denture upon the mucous surfaces of the mouth, pathologically considered, is cause for apprehension, and in view of the large number of persons who by reason of the premature loss of their dental organs are required to wear them, it is of the highest importance that this deleterious influence should be recognized and eliminated as far as possible. When inserting an artificial denture, it should always be borne in mind that a foreign body is being introduced in the oral cavity, which may become to a greater or less degree an irritant to the tissues and organs with which it comes in contact. That it is possible for any mouth long to endure the presence of these substitutes without pathological disturbances, becomes more and more inconceivable as we study carefully the relations they sustain to each other, for substances so unlike as artificial dentures and the mucous membrane of the mouth are brought together nowhere else in the human body.

The mucous membrane of the oral cavity and the skin present the same anatomical features, with few exceptions, being analogous products of the same external layer of the blastoderms, and are continuous, the one with the other at the lips. The oral membrane consists of the stroma, epithelial cells covering it, the lymphatic glands and nutrient vessels which lie embedded in the substance of the stroma. The surface of the stroma is covered with papillæ, which, with the exception of those found on the tongue, are identical with those of the skin.

The surfaces between the papillæ are filled with epithelial cells, which give to the mucous membrane an outwardly smooth appearance. The deepest portion of this epithelial layer is formed by a layer of protoplasm, and in this protoplasmic layer are found the youngest of the epithelial cells. In a normal condition there is a constant production of young cells and a subsequent desquamation of the oldest cells of the epithelial layer, which under ordinary or natural circumstances are floated away in the saliva. This exfoliation of the epithelial cells is a physiological process which in health takes place slowly; a too rapid shedding giving rise to pathological conditions; shallow ulcers, apthous or canker, being caused by the shedding of the older or superficial cells faster than the young cells are developed.

The most favorable conditions for a too rapid shedding of these cells is established under artificial dentures resting on the mucous surfaces of the mouth.

All artificial dentures are poor conductors of thermal changes, excepting gold and continuous gum, which quickly become such by decomposed mucus, saliva and debris, and consequently the membrane of the mouth covered by them is kept at a higher temperature than when in a normally exposed condition.

The temperature of the body is maintained at from 98° to 100° F.