

## BIOCHEMICAL ANXIETY OF CHRONIC CALCIUM DEFICIENCY

The concept I am to present concerning the genesis of anxiety for reason of a specific deficiency state, is the product of pure clinical research conducted in office practice between the years of 1959 to '83. That research constituted the assessment of the positive relationship of certain defects of lifestyle including diet, the complaints, and the physical changes in innumerable patients suffering different diseases and the negative relationship of those findings in individuals in perfect good health.

In the 1950s this research resulted in the redefinition of "allergy" and "auto-immunity" as "deficiency reactions" and in the 1970s of the definition of "biochemical anxiety". By "biochemical anxiety" I refer to that nervous, tension, worrying, and frequently hyperactive state that I noted to occasionally complicate diseases in some patients, to frequently occur alone, but to invariably be associated with particular lifestyle defects. I refer to a diet which gave rise to deficiency of calcium and of the dietary and sun-on-skin generated D vitamins.

That form of anxiety aroused by deficiency is contrasted to that which is product of the individual's assessment of physical or mental-psychic factors that constitute a hazard to that person's physical or mental-nervous well being. I define the increased mental and physical activity which that assessment will produce, and which is designed to overcome that threat, as "warranted anxiety".

The D vitamin has the potential of ionizing an atom of calcium. Consequently, it is essential for the intestinal assimilation of calcium and for the biological function of calcium in living cells. It appears that such function concerns the intracellular transfer of the cell's energy that has been liberated by the oxidation, of glucose.

The ionic calcium deficiency and the "energy starvation" that is so created in all body cells will also induce increased acidity of those cells which is reflected on the pH of the saliva. The pH test of saliva may be used to identify those affected by or prone to develop biochemical anxiety.

"Energy starvation" not only constitutes a threat which the body recognizes to excite activity but it also depreciates the capacity of the body tissues and organs to react to that threat. In those individuals in whom the "energy starvation" particularly affects the cells of the central nervous system, the brain, it will produce aberrant thought processes. In some those processes and the associated muscle-nerve hyperactivity will produce the state of "biochemical anxiety". This will be particularly true if the biochemically stressed individual is burdened with factors of life which give rise to added "warranted anxiety".

In others, in whom particular central nerve tracts are blocked through energy starvation the deficiency will induce mental depression existing alone or combined with anxiety.