

The real fundamental essential causes of mind impairment are those degenerative influences which have to do with producing instability of the nervous centres and cells, *unavoidable because finished*. The determining or exciting causes are of great variety, *avoidable possibly* and rarely, almost never such as are capable alone of producing mental degeneration. While of vast importance to study the real causes, little can be done to influence them except by movements of widest co-operative scope. Nature sets bounds to many of these damaged families by limiting their reproductive powers (it would seem at times insufficiently). But we may have great confidence in nature's methods, especially if we can divine her ultimate intentions. Among those may be the fact that under suitable environment and opportunities a *regeneration* is possible.

During the period of brain growth in bulk up to the seventh year, when the full size and weight is almost attained, nutritive influences are of the largest value. How far this can reach positively needs future demonstration, but is rich in promise; how far negatively is well understood, but receives as yet insufficient support. There is during these early years more formative power and less out-put of energy exhibited. The brain of a babe or infant consumes more oxygen and produces more carbonic acid and urea. The chemic constitution of the muscles is different, and, no doubt, of the nature of the nervous centres. They are more subject to proliferative diseases, and less to those of disordered function and degeneration.

One, if not the most, important quality of the brain during this formative epoch is deficiency in its resisting power. In this respect it shares with many other organs, but none of them are comparable in importance to the brain. This power to resist hurtful influences from without, or from within, is the very key-note of childish physiology, the index of vital force. The wide variations between functioning power in structures which are (to all our present means of investigation) of practically similar structure are the special realms for promising investigation in the future. Whatever interferes with these delicate buddings of energizing and gatherings of potentiality there leaves its blighting mark for all time.

"The most serious of pathologic fact of brain development is certain mental disturbances in the functions of the brain, and these are intimately associated, hereditarily and functionally, with certain motor, sensory and trophic neuroses incidental to the period of development." (Clouston.) The brain has recently been shown to be the stimulator and inhibitor of all nutrition, the key to all the functions of all the organs and tissues.

The unique fact about the nerve cell is the extreme slowness with which it develops function after its full bulk has been attained. Small differences in amount of blood, in the condition of that tissue, its acidity or alkalinity, its cleanliness or toxicity—the pressure maintained in the cerebral vessels from whatever cause—especially if continued just a little too long and irreparably hurt, may come, or such damage as require much time and perfect condition for repair.

A careful review of our evidence reveals one uniform and all-prevailing error, requiring to be perpetually discounted in these and all other