

# The 5,000,000 Children

By DICK OWEN

SCATTERED throughout the U. S. are five million mentally retarded children, and there'll be thousands more. Approximately 3% of all children born fall into the category, says the National Association for Retarded Children.

These children range from hopeless imbeciles to high grade morons. They are little known. They are hidden from the public. Their case, at the moment, is well-nigh hopeless. Medicine hasn't a single cure for this terrible scourge of the inno-

cent's. Mentally retarded children are born to rich and poor alike. Their parents may be college professors or ditch diggers. The affliction knows no class or distinction. It hits all races. It is as democratic as death.

Not only are these children born with permanent brain damage, many of them are terribly deformed. Some have huge heads due to hydrocephalism (commonly called water on the brain), or tiny heads—microcephalism.

Some are contorted by spasticity which locks their legs together or causes them to clench their fists so that their finger nails pierce their palms. They throw their limbs about in uncontrolled thrashings.

Thousands are complete cripples; have cerebral palsy or twisted spines that bend them forward or backward. Many are born deaf, dumb, blind. Some have no hands or feet, just fleshy growths at their extremities.

These children top the list of the permanently afflicted in our nation. Look at these figures:

Mental retardation (of each 100,000 population)	3,000
Rheumatic heart	700
Cerebral palsy	750
Polio (permanent)	300
Blindness	200

Before this vast and terrifying problem medicine is practically helpless. Research is almost nil. The public is indifferent or unaware. Yet more than 10 million relatives and friends of these children are directly affected by the problem.

## State Patient's Care Costs \$2,000 a Year

The cost of looking after these children from infancy to old age is met by the taxpayer in most cases. (It can cost \$50,000 per patient. It runs a little less than \$2,000 per year for each patient in the state schools and hospitals in New York.) They get minimal education (there are no trained teachers for the job) and few of them—very few—can be equipped to take jobs and become self-supporting.

## Empty Joy

This happy 3-year-old will mercifully never know that she is one of the nation's five million mentally retarded children, for behind her appealing smile is a mind that will retain little. There is no cure for mental retardation, which afflicts about 3% of all children born in this country.



has been greatly reduced by modern treatment and laws requiring blood tests for men and women who apply for marriage licenses.

At Letchworth Village, N. Y., where there are about 5,000 mentally retarded patients, Dr. George A. Jervis, director of the laboratory and one of the country's leading specialists in this field of medicine, says he has not encountered a single case of mental retardation due to syphilis during his 22 years at that school.

In cases of blood incompatibility between mother and infant, doctors frequently can avert danger with preventative treatment by giving the newly-born baby total blood transfusion.

But when it comes to cures for the mentally retarded, the picture is discouraging. The brain damage is beyond any kind of repair. Nothing that has been tried so far has accomplished anything.

TO begin with, many of the brain damages among mentally defective children cannot be diagnosed. In fact, the brain of the defective child many times shows no difference whatsoever, grossly or microscopically, from that of a so-called normal child.

Too little is known about the human brain. For example the causes of sleep are still a mystery.

## Mysteries of Brain Still Baffle Science

How much physical damage can a brain sustain and still function almost normally? What happens to an injured brain? What effect does an injury produce on the functions of the brain?

In the hydrocephalic child the skull appears to be abnormally large and is filled with cerebral spinal fluid to the extent that the brain itself is compressed to tissue-paper thinness. Dr. Leon Roizin, pathologist for the New York State Department of Mental Hygiene at the New York Psychiatric Institute, established

that this paper-thin tissue can still function to its limited capacity.

The motor areas in the brain have been pretty well defined. But where are memories retained? What gives us the ability to recall those memories? What gives us the ability to compare certain related memories so that we exercise reason and judgment? Where are our powers of discrimination located?

All of these questions are vital to the understanding of normal brain functions and are a part of the overall problem of dealing with brain damage in retarded children.

At the autopsy table where the corpse of a mentally defective is examined, the surgeon and pathologist might well think they have entered a world of utter madness. Brains in some of these children are upside down in the skull. There may be only a

single hemisphere. The medulla may be absent entirely. Large masses of bone, completely unrelated to normal cranium structure, may be found in the center of gray matter.

These anomalies offer the researcher a starting place for his correlation of the anatomical findings with the adjustment to everyday life.

Dr. Jervis of Letchworth has established the fact that there is need for hundreds of studies to isolate metabolic changes that are found in mental deficiencies. Biochemists are required in such research.

Jervis is using isotopes in an attempt to find out what particular foods, acids, chemicals, etc., are needed for the proper functioning of the body's organs. He hopes to learn what nourishment the brain needs for its development and perhaps find a chemical that may repair brain damage.

AT Willowbrook a significant and hopeful program is now being carried out by Dr. Berman and his associates. His treatment of spastic mental defectives has already attracted wide attention. He treats patients with high frequency electric current.

This is electroshock therapy via a Reiter-Sedac electro stimulator. The Sedac attachment filters out all low frequency current so that only high frequency waves pass through. They have a frequency of one million cycles and over. They cause no pain.

The electrodes are connected to the patient, the current is turned on slowly and gradually increased until movement is produced in muscles of the eyebrows. At this point the current is lowered slightly. The treatment lasts about 30 minutes.

In the April issue of Diseases of the Nervous System, Berman reported how his treatment has

One of the players in this amazing orchestra is a congenital idiot. Another cannot speak a word and all are mentally deficient in various ways. Yet, under the patient direction of instructors at the Willowbrook State School on Staten Island, music is entering their limited lives.

