

## PEDIATRICS

# Diet Raises Child's I.Q.

NEW DIETARY CONTROLS are helping boost the intelligence scores of children with certain relatively rare inherited mental deficiencies.

Heartening I.Q. rises have been recorded in Great Britain and the United States in youngsters whose conditions arise from defects in body chemistry.

Even the prevention of mental retardation is being achieved in some cases when afflicted infants are detected almost immediately after birth. Physicians are getting an additional jump in early treatment through the spotting of genetic carriers among parents-to-be.

Many children with these disorders would, only recently, have been destined before birth to an almost vegetable existence. Some now have a chance to meet life with a productive, closer-to-normal intelligence.

Up-to-date work in this new approach to mental deficiency is currently being reported by a British pediatrician, Dr. Alan Moncrieff, to several leading child health centers in the U. S.

Dr. Moncrieff described progress in three treatable types of mental deficiency. However, he emphasized that little can be done presently for dozens of other types.

The three that have yielded to dietary treatment are phenylketonuria, galactosemia, and a condition, victims of which are known as "water babies."

Phenylketonuria is a hereditary disorder affecting one child in about 25,000 births. It results from inability to metabolize the amino acid known as phenylalanine.

Children fed milk low in phenylalanine experienced improvement in I.Q. after a few months on the diet. In one of Dr. Moncrieff's cases, the I.Q. of a retarded child was raised nearly to that of her normal twin sister. Dr. Moncrieff does not yet know if a lifetime diet is indicated for maintenance of the higher intelligence level.

While his own research specialty is phenylketonuria, Dr. Moncrieff is intensely interested in the entire field of mental retardation. He referred to the work of other British and American researchers in describing striking successes in the other two disorders.

Galactosemia, an inherited enzyme defect at the site of conversion of a form of galactose to a form of glucose, causes jaundice and cataracts as well as mental deficiency. It can be detected after birth through an excess of lactose in the urine.

It is possible, Dr. Moncrieff said, to prevent all three symptoms with a lactose-free diet starting very early in infant life. Unfortunately, lactose-free foods are hard to find, and even tiny amounts of lactose have potent detrimental effects.

Water babies have a kidney defect and they pass tremendous amounts of urine. The condition is genetically sex-linked; the defective gene being carried by the female and the disorder appearing only in males. Why it results in mental deficiency is not known.

In order to keep the baby alive in the early weeks of life, one must almost continually "pour" water into it. A somewhat less trying fluid treatment is then maintained to prevent mental retardation. The parents of one set of afflicted twins must feed them every two hours around the clock. Concerning a young medical student with the disorder, Dr. Moncrieff said he "was endowed with a mind simply by giving him water."

A professor of child health at the University of London, Dr. Moncrieff reported the encouraging news to Children's Hospital, Washington; The Johns Hopkins University; Children's Hospital, Philadelphia; Babies' Hospital, New York; Yale University; and Harvard University.

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Harrison continues. Both science and art must periodically burst the bonds of the classical, he writes, "but the old is supplemented by the new rather than supplanted by it." Moreover:

"The scientist is just as likely as his artist cousin to suffer from temperament, and for the same reasons. . . . The scientist is deliberately trained to be an intellectual who does not shrink from change, but welcomes and attempts to guide it. Most scientists are far more optimistic about the future of civilization than are the run of poets and painters. . . . Herein may lie the secret of the present ascendancy of science."

Dean Harrison presents his discussion in MIT's *The Technology Review* (July).

Science News Letter, July 18, 1959

## ASTRONOMY

## Very Faint Comet Rediscovered

A VERY FAINT COMET first found in 1951 has been rediscovered in its heavenly travels by Miss Elizabeth Roemer of the U. S. Naval Observatory Flagstaff Station, Ariz.

Known as Comet Arend after the man who first spotted it, the object is of 19th magnitude, too faint to be seen except in large telescopes. News of its rediscovery on July 6 is being sent to astronomers in the Western Hemisphere by Harvard College Observatory.

Science News Letter, July 18, 1959



**PATH FOR MOTORISTS**—One of the country's first rubber railroad crossings has been installed over a double set of curved tracks at Wooster, Ohio. Developed by the Goodyear Tire & Rubber Co., rubber railroad crossings are in use by railroad lines at a number of places in the U. S. Goodyear officials claim rubber crossings will last about 20 years. The man in the foreground is placing rubber plugs in bolt holes. Ice will not hold on the pads.

## GENERAL SCIENCE

# Science Resembles Art

DIFFERENCES between science and art frequently are exaggerated and more emphasis should be placed on the resemblances, Dean George R. Harrison of the School of Science at the Massachusetts Institute of Technology says.

Taking issue with Boris Pasternak's Dr. Zhivago, who holds that progress in science is governed by laws of repulsion and progress in art by laws of attraction, Dean Harrison argues that scientific progress results from attractions and imitations quite similar to those that result in great art.

"The work of the true scientist," he writes, "is primarily directed and conditioned by aesthetic values. . . . Every scientific hypothesis or discovery is a work of art. It arouses in observers feelings of

beauty to the degree that it appeals as true, and feelings of interest to the degree that it is new, disciplined, and fitting.

"The panorama of modern science is like a vast mural painting on which thousands of artists have been filling in detail over the centuries, a hypothesis and its subsequent verification here, a discovery and its explanation there. . . . Einstein himself described his first tentative probings in the direction of relativity as being guided by the need for symmetry and order. He might have been describing the approach of Beethoven, or Praxiteles, or Milton, to the working out of their respective intuitions."

Like an abstractionist painting, a great scientific generalization cannot be appreciated without technical understanding, Dean