

Bernard Sachs (1858-1944) [1]

By: Nardi, Tiffany

Bernard Sachs studied nervous system disorders in children in the United States during the nineteenth and twentieth centuries. In the late 1880s, Sachs described the fatal genetic neurological disorder called amaurotic family idiocy, later renamed Tay-Sachs disease. The disorder degrades motor skills as well as mental abilities in affected individuals. The expected lifespan of a child with Tay-Sachs is three to five years. In addition to working on Tay-Sachs disease, Sachs described other childhood neurological and developmental disorders that stem from problems with early brain development. Sachs's research in early brain development helped establish some of the physiological symptoms of hereditary neurological disorders in children, enabling doctors to diagnose the disorders earlier and to develop treatments for them.

Born on 2 January 1858 in Baltimore, Maryland, Sachs was an identical twin and the youngest of five children of Sophia Sachs and Joseph Sachs. His parents were both of Bavarian Jewish descent and emigrated from Germany to Philadelphia, Pennsylvania, in 1847. They then moved to Baltimore, where Sachs was born. In 1859, the whole family moved to New York City, New York, where Sachs's father started a school. At the age of five, Sachs's twin, Harry, died of scarlet fever. After Harry died, Sachs's father relocated the family to Germany in 1867. Sachs's father died two years later. In 1869, the Sachs family returned to the United States, settling again in New York City. Three years later, Sachs's mother died of diabetes. Sachs and his remaining siblings were then raised by one of their aunts. As the youngest child, Sachs grew up watching his brothers become scholars and entrepreneurs. His brother, Samuel Sachs, became a partner at the banking house Goldman, Sachs and Company, in 1888 in New York City. His eldest brother, [Julius Sachs](#)^[2], opened the Sachs Collegiate Institute for Boys in New York in 1872, where Sachs finished his primary education. In 1874, Sachs entered [Harvard University](#)^[3] in Cambridge, Massachusetts.

During Sachs's time at Harvard, he studied liberal arts and sciences. While at Harvard, he volunteered to read to his psychology professor, William James, who was half-blind. Sachs read a chapter each day from German psychologist Wilhem Wundt's recently published book, *Grundzüge der Physiologischen Psychologie* (Basic Course of Psychology). In 1878, Sachs won the Bowdoin Prize for his thesis in which he compared the limbs of different vertebrate animals. He graduated that year with a Bachelor of Arts degree from Harvard with honors.

After graduation, Sachs went on to study medicine in Europe. Sachs attended medical school at the University of Strasbourg in Alsace, France. During his fourth semester, Sachs studied in Berlin, Germany, under Carl Westphal, a neurologist and psychiatrist, and Rudolph Virchow, who studied the causes of diseases. Sachs received his medical degree from the University of Strasbourg in June of 1882. After graduating, Sachs stayed in Europe to continue his medical training. In Vienna, Austria, he studied in the laboratory of Theodor Meynert, a medical doctor who studied diseases of nervous system tissues. Later, Sachs studied under John Hughlings Jackson, in London, England, where he received further training in nervous system disorders.

After Sachs finished his studies in Europe, he returned to New York in 1884 and joined the clinical practice of Isaac Adler, a medical doctor in New York City. While working with Adler, he met a patient with the disease that would later be called Tay-Sachs. In 1885, Sachs began working with Edward Constant Seguin, a fellow neurologist, in several hospitals in New York City, including The Mt. Sinai Hospital. In 1886, Sachs was elected to membership in the American Neurological Association in New York City, New York, and became the editor of the *Journal of Nervous and Mental Disease*, the official publication of that [organization](#)^[4]. A year later, Sachs married Bettina R. Stein, with whom he had two daughters.

Also in 1887, Sachs presented his paper on what he called amaurotic family idiocy to the American Neurological Association. In his paper, Sachs described the symptoms of an infant girl who had poorly developed and worsening motor and mental abilities. Sachs noticed similar symptoms in other patients, who were primarily of Ashkenazi Jewish descent. The parents of those patients were often related to each other. Sachs hypothesized that the condition was hereditary and congenital, that it was passed on genetically from parents to child and was present at birth. Sachs was unaware of Warren Tay, an eye doctor in London, England, who had described similar symptoms of the same disease in 1881. Sachs's hypothesis, however, prompted later researchers to study how children inherited the disease from unaffiliated partners.

Along with Sachs's research and numerous positions in organizations, he also wrote several books. In 1895, Sachs published *A Treatise on the Nervous Diseases of Children for Physicians and Students*. In that book, Sachs describes diseases that affect children's nervous systems due to incomplete development. He discusses disorders that not only occur early in life but also continue to affect children later in life, such as epilepsy, a disorder characterized by involuntary convulsions of the body. Many acknowledged as the first American textbook in pediatric [neurology](#)^[5] and it continued to serve as a source for information on diseases uncommon in the twenty-first century. Later, in 1926, Sachs published *The Normal Child and How to Keep it Normal in Mind and Morals*, in which he said that parents should raise their kids using common sense and not psychological theories such as Sigmund Freud's psychology.

Sachs held many posts throughout his medical career. In 1898, Sachs helped establish the Charaka Club in New York City, which was devoted to exploring history and humanities. In 1931, Sachs helped organize the first International Neurological Congress which was held in Berne, Switzerland, and also was its president. In addition, Sachs was twice elected president of the New York Neurological Society and was also the president of the New York Academy of Medicine in 1931. In 1932, Sachs became president of the American Neurological Association. Two years later, with funding from the Friedsam Foundation in New York City, New York, which provided funds for the care of the young and the old, Sachs established the first division of child [neurology](#)^[6] at the New York Neurological Institute in New York City, where he also became director.

In 1940, Sachs's first wife died, and he married Rosetta Kaskel a year later in 1941. Sachs died in New York on 8 February 1944.

Sources

1. Evans, Philip R. "Tay-Sachs Disease: A Centenary." *Archives of Disease in Childhood*62 (1987): 1056–9.
2. Francis, Schiller. "Sachs, Bernard." *American National Biography Online*. 2000. (Accessed February 10, 2016).
3. Hausman, Louis. "Bernard Sachs, MD 1858–1944." *Archives of Neurology and Psychiatry*51 (1944): 481.
4. Jackson, John Hughlings. "On the Nature of the Duality of the Brain." *The Medical Press and Circle* 1 (1874): 41–44.
5. James, William. "The Sentiment of Rationality." *Mind* 4 (1879): 317–346.
6. Johnson, Sara K., Ramo K. Naidu, Ryan C. Ostopowicz, David R. Kumar, Satya Bhupathi, Joseph J. Mazza, and Steven H. Yale. "Adolf Kussmaul: Distinguished Clinician and Medical Pioneer." *Clinical Medicine and Research* 7 (2009): 107–12.
7. Louis, Elan D. "The Conceptualization and Organization of the First International Neurological Congress (1931): The Coming of Age of Neurology." *Brain* 133 (2010): 2160–66.
8. Perl, Daniel P. "Barney Sachs and the History of Neuropathologic Description of Tay-Sachs Disease." In *Tay-Sachs Disease*, eds. Robert J. Desnick and Michael M. Kaback, 11–23. New York: Academic Press, 2001.
9. Sachs, Bernard. "On Arrested Cerebral Development, With Special Reference to its Cortical Pathology." *The Journal of Nervous and Mental Disease* 14 (1887): 541–553.
10. Sachs, Bernard. "The Mental and Moral Training of the Normal Child." *Bulletin of the New York Academy of Medicine*7 (1926): 352–60.
11. Sachs, Bernard. *A Treatise on the Nervous Diseases of Children for Physicians and Students* New York: William Wood and Company, 1895.

12. Sachs, Bernard. *The Normal Child and How to Keep it Normal in Mind and Morals* New York: Hoeber, 1926.
13. Seguin, Edward Constant. "On The Coincidence of Optic Neuritis and Subacute Transverse Myelitis." *The Journal of Nervous and Mental Disease* 7 (1880): 177–188.
14. Stumpf, David A. "The Founding of Pediatric Neurology in America". *Bulletin of the New York Academy of Medicine* 9 (1981): 804–16.
15. Tay, Warren (1881). "Symmetrical Changes in the Region of the Yellow Spot in Each Eye of an Infant." *Transactions of the Ophthalmological Societies of the United Kingdom* 4 (1884): 125–6.
16. Virchow, Rudolf Ludwig Karl. *Gesammelte Abhandlungen aus dem Gebiete der öffentlichen Medicin und der Seuchenlehre* Vol. 1 [Collected Treatises on the Topic of Public Medicine and Infectious Diseases]. Berlin: A. Hirschwald, 1879.
17. Westphal, Carl. "Die Agoraphobie, eine neuropathische Erscheinung" [Agoraphobia, a Neuropathic Phenomenon]. *Archiv für Psychiatrie und Nervenkrankheiten* [European Archives of Psychiatry and Clinical Neuroscience] 3 (1872): 138–161.
18. Wundt, Wilhelm Max. *Grundzüge der Physiologischen Psychologie*. Leipzig^[6]: W. Engelmann, 1874. https://books.google.com/books?hl=en&lr=&id=c1gFUXJ0oXYC&oi=fnd&pg=PA1&dq=Grundz%C3%BCge+der+Physiologischen+Psychologie&ots=chib3p8_ey&sig=-T76LSczymNTu7E4-tijlzYIMQ#v=onepage&q=Grundz%C3%BCge%20der%20Physiologischen%20Psychologie&f=false^[7] (Accessed March 10, 2016).

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