

Joining Hands for Rady Children's

Meeting an Urgent Need for Coordinated Care

Pediatric Inflammatory Brain Disorders

Rady Children's Neuroscience Institute is dedicated to helping children facing brain illnesses lead full lives with minimal disruption. We are a national destination for innovative, high-quality neurological care, ranked eighth in the nation—and #1 in Southern California—in 2022-2023 by U.S. News & World Report. A priority for the Institute is pioneering collaborative care for children with pediatric inflammatory brain disorders.

When Inflammation Disrupts the Developing Brain

Pediatric inflammatory brain disorders (PIBDs) are rare but serious conditions caused by a child's overactive immune system mistakenly attacking healthy brain cells following an infection. While not all physicians agree on terminology, the most common diagnoses are Autoimmune Encephalitis, Pediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal Infections (PANDAS) and the broader Pediatric Acute-Onset Neuropsychiatric Syndrome (PANS). In all cases, inflammation can cause a wide variety of problems in a child's developing brain—impacting their thinking, learning, bodily function, and mental health.

For previously healthy children, inflammatory brain diseases are a leading cause of new and devastating neurological deficits or neuropsychiatric syndromes. While the true prevalence is not fully known, the PANS Research Consortium estimates 1-2% of the pediatric population is affected by PANS alone. Kids with inflammatory brain disorders can experience a wide range of neurological challenges, including seizures, weakness or trouble with movement or coordination, as well as neuropsychiatric symptoms like sudden, dramatic changes in personality, obsessive-compulsive disorder (OCD), anxiety, tics, sensory sensitivities, learning challenges and restrictive eating.

Building a Uniquely Collaborative Model of Care

Rady Children's Neuroscience Institute sees an urgent need to provide more effective multi-disciplinary care for children facing this complex and difficult set of diagnoses. While we are in the early stages of understanding this illness, treatment requires a high level of coordination between pediatric specialists in Psychiatry, Neurology, Rheumatology, and Infectious Diseases. With philanthropic support, Rady Children's will be among the first to establish a cooperative approach for the diagnosis and treatment of pediatric inflammatory brain disorders. In a space where patient families often experience delayed access to care, our model would lead the way with centralized evaluation, testing, consultation, long-term treatment planning, and care coordination—building a specialized network to meet the needs of each child. While improving patient experiences, cross-disciplinary care and research paves the way for innovation, the findings of which are likely to greatly advance our overall understanding of children's brain health.