

Children dependent on life support vulnerable to loss of electrical power

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Children dependent on electrically powered medical devices for life support and maintenance are vulnerable to an unexpected loss of power – and their parents are ill-prepared to deal with it, according to an abstract presented Sunday, Oct. 16, at the American Academy of Pediatrics (AAP) National Conference and Exhibition in Boston.

Children with special health care needs are medically complex and often dependent on feeding pumps, oxygen concentrators, nebulizers (providing medication to the lungs), chest vests (for children with cystic fibrosis), suction machines and other [medical devices](#) requiring electrical [power](#). A natural disaster or a power grid disruption could halt electrical service not only in a child's home, but also at nearby hospitals and medical centers, placing these children at risk of death. (Hospitals own back-up generators, but it may be very difficult for them to reach hospitals in time due to possible traffic gridlock or hospital lockdown.)

In the study, "Technoelectric Dependent Children," researchers surveyed 50 families caring for children and young adults, ages 5 months to 25 years, who are dependent on electronic medical devices.

In the study, 94 percent of families felt that their children need an electrical medical device to maintain their lives. Researchers found many of devices did not have back-up batteries, and 86 percent felt their most important device would not run more than 1 day without electricity. Half did not have any back-up plan. Three- fourths did not have a generator. Though almost 90 percent possessed automobiles, half were

not aware that a car can generate electricity.

"Our research revealed that most technoelectric dependent children with special health care needs are not prepared for power failure," said lead study author Kazumi Sakashita, MD. "We suggest that in addition to having a back-up battery, parents and caregivers use an automobile as a tool to generate electricity and have a standby or portable generator at home. Families of [children](#) who are dependent on electrically powered devices should routinely drill for power failure and have a plan to maintain [electrical power](#) for their [life support](#) or maintenance devices."

Provided by American Academy of Pediatrics

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