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Boy With Cancer, Whose Early Xmas Wish Spurred Worldwide Attention

By Jamie Wells, M.D. — November 21, 2017



Jacob Thompson, the young boy suffering from cancer, whose request to help him celebrate his last Christmas went viral and was met with a global outpouring, has died.

As per his [family's facebook page](#) (photo from same): "It is with heavy hearts that we share the news of Jacob's passing with you. On Sunday, November 19th, 2017, at just 9 years old, Jacob passed away peacefully following his 4 year battle with neuroblastoma."



From celebrities to police forces, the public heeded Jacob's call for letters to help him experience an early and final Christmas-- as time was of the essence given the terminal advancing nature of his disease. The response was massive and included gifts, cards, visits, video and all varieties of sentiments expressed. These acts uplifted him and his family while spreading heartwarming messages to all.

His family goes on to say, "We hope that Jacob's story and the enormous outpouring of support from around the world will have a lasting impact on raising awareness for this disease. We hope that donations will be made, and a cure will be discovered as a result. Each and every person who sent Jacob a Christmas card, a gift, a Facebook message or video, or a prayer made a difference in the final days of his life. You brought Jacob joy, and you brought us all optimism for the future. Thank you for taking the time, and taking an interest in our sweet boy's journey. Sadly, there are many others like him that we hope you will continue to help."

In the spirit of the holiday season imminently upon us, I was inspired to perpetuate his legacy by raising more awareness about **neuroblastoma**.

What is neuroblastoma?

Neuroblastoma is a solid tumor type of cancer that forms in immature nerve cells of the sympathetic nervous system. This part of the nervous system is in charge of changes in blood pressure, heart rate, breathing, digestion, blood sugar and other functions, specifically our *fight or flight* response to stress. The nerve fibers that compose this system have connections throughout the body, to our organs. For example, the adrenal glands which sit atop our kidneys and secrete adrenaline and steroids like cortisol and aldosterone. Each can impact the basic bodily functions previously described.

Neuroblastomas can contribute to problems because of their increasing size creating mass effect on surrounding structures and also from their influence on the release of hormones.

Is it common? Who gets it?

According to the [American Cancer Society](#), neuroblastoma is:

- Occurs in 6% of all childhood cancers
- Most common cancer in infants (less than 1-year-old), 90% are diagnosed before age 5 (rare after 10)
- About 700 new cases annually in U.S.
- Survival for low- and intermediate risk is 95% and 90%-95%, respectively; for high risk, 40%-50%
- About 55 percent of all neuroblastoma patients are boys (as per the [Children's Neuroblastoma Cancer Foundation](#))

What are the signs and symptoms?

The neck, chest, spine (anywhere from neck to pelvis alongside spine) or adrenal glands are your traditional locations for neuroblastoma. Signs and symptoms will depend on the primary location and extent of spread. A pediatrician might feel a painless mass in the abdomen or neck. Gastrointestinal symptoms include feeling early satiety or reduced appetite. Mass effects due to the increasing size of the tumor may cause swelling or when pushing on the bladder a sense of needing to go (aka urgency). Neuroblastoma in the neck or chest can compress vital structures causing a wide range of symptoms from facial swelling to difficulty breathing. When near the spine, nerve compression can reduce mobility or sensation.

There is great diversity in signs and symptoms with a wide array. And because neuroblastomas come from the sympathetic nervous system that can cause hormonal changes, *paraneoplastic syndrome* is the technical name, resulting in symptoms from frequent diarrhea to rapid heart rate etc. This also depends on whether or not the disease has spread beyond its origin. Then, symptoms correlate to those organs adversely affected.

Usually when a patient is diagnosed it is because they have symptoms. That is why 2 out of 3 neuroblastomas have already spread to the lymph nodes or elsewhere at the time of diagnosis. Bone pain is not uncommon.

Ultrasound may detect neuroblastomas while the baby is in the womb, so before birth.

To learn more, review the National Institutes of Health site [here](#).

