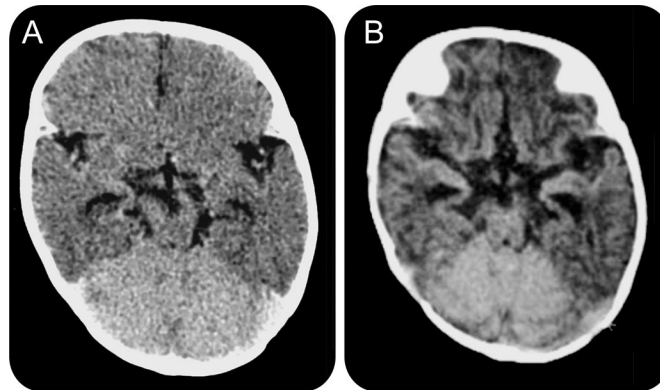


# Teaching NeuroImages: Reversal sign on CT in a child with hypoxic-ischemic brain injury

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Figure Brain CT



(A) Axial unenhanced CT study at the time of insult showing diffuse hypodensity of the cerebral parenchyma with normal cerebellar attenuation causing reversal sign. (B) Follow-up study 2 weeks later showing marked supratentorial volume reduction with persistent CT density difference.

A 7-month-old infant was admitted following cardiopulmonary arrest. She had complex congenital heart disease and severe respiratory infection and required ventilator support. On recovery, she had poor visual regard, bilateral spasticity, and developmental delay. Initial CT brain done on the third day of arrest (figure, A) and the follow-up scan done 2 weeks later (figure, B) showed the reversal sign. Reversal sign represents severe anoxic-ischemic brain injury resulting in irreversible brain damage and carries poor

prognosis.<sup>1</sup> Possible explanations for the high-density areas include preserved brain tissue, petechial hemorrhage, and mineralized neurons, whereas edema and tissue destruction could explain the low-density ones.<sup>1</sup>

## REFERENCE

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*Neurology* 2011;76:e27  
DOI 10.1212/WNL.0b013e31820af92b

**This information is current as of February 7, 2011**

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