

1879

1878-1880

The first successful treatment of a pediatric brain tumor dates back to 1879. Sir [William Macewen](#), a Scottish surgeon, was the first to perform an intracranial surgical [procedure](#) to successfully remove a meningioma from a 14-year-old girl. Upon her death, eight years later, no tumor was found at autopsy, demonstrating that surgical cures of brain tumors were possible.

The first [endoscope](#) is credited to [Philipp Bozzini](#), a German physician, who demonstrated the "Lichtleiter", a candlelit tube, in [1806](#) to the Academy of Medicine in [Vienna](#) ¹⁾. This was vastly improved in 1877 by Max Nitze, a German urologist, with the addition of lenses for magnification and an internal light source noting "to light up a room one must carry the lamp inside" ²⁾. His first endoscope used a water-cooled platinum wire for illumination but Edison's invention of the incandescent bulb in [1879](#) allowed the development of a cystoscope that no longer required water cooling. Using his invention, Nitze was the first person to perform endoscopic surgery with wire loops and to take endoscopic pictures. The next technological breakthrough occurred almost a century later when Harold Hopkins in [1960](#) vastly improved optical efficiency by inserting glass rods and neutral gas between the lenses. Around the same time, Basil Hirschowitz, an American gastroenterologist, developed a [flexible endoscope](#) using fiberoptics. The modern rigid endoscope was invented by Karl Storz in [1965](#) when he combined the optical rod system of Hopkins and used fiberoptics to carry illumination down to the tip of the endoscope ³⁾.

¹⁾

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