

## **SPiR Ask Annie - MAR 2017**

**Written by Dr. Anne Gill, Children's Healthcare of Atlanta, Emory University Hospital**

### **Who is Dr. Kurt Amplatz?**

Dr. Kurt Amplatz is one of the 20<sup>th</sup> century's most famous and innovative interventional radiologists. He was born in Austria in 1924 and began working in his uncle's chemistry lab at 10 years of age. His spirit of inquiry continued in college where he studied chemistry and engineering, learning principles that would later serve him well as he made his own prototypes of several medical devices. Upon completing medical school in 1951, he immigrated to the United States to begin internship in Brooklyn. After completing radiology residency in Detroit, he was appointed a faculty position at the University of Minnesota where a major focus was the new developments in open heart surgery. As he began to pursue his interests in coronary angiography, he realized the field was lacking tools to assist in selecting the coronary arteries. He traveled to Stockholm to learn the new vascular access technique from Dr. Seldinger. Upon his return, he experimented with several catheter designs and eventually patented the Amplatz coronary catheter. He then went on to design a portable contrast injector, endovascular wires, pneumoencephalography (a procedure of injecting air into the cerebral ventricles to better visualize brain tumors), lithotripsy (a procedure to remove kidney stones percutaneously), the goose neck snare (a device to snare foreign bodies from endovascular spaces), and finally the Amplatz occluder device. The occluder device is probably his most well-known device, and is used for atrial/ventricular septal defects, as well as patent ductus arteriosus repair in both pediatric and adult patients. The device has spared numerous patients from open heart surgery and allowed them to pursue active lifestyles which were not possible before. Newer versions of his original device now allow for rapid and safe occlusion of peripheral vessels as well.