

JOINT MEETING VA-ANS & VA-HPS  
[Tour of the Neuroscience and Gamma Knife Center at Johnston-Willis Medical Center](#)

Dr. Al Strash  
Radiological & Medical Physics Consultant, Johnston-Willis Medical Center

**Thursday, September 23, 2004**

Main Auditorium of the [Johnston-Willis Medical Center](#)  
1401 Johnston-Willis Drive  
Richmond, VA 23235

[Click Here for Directions](#)

***"Intracranial Radiosurgery and the Gamma Knife"***



Gamma Knife® surgery uses radiation to treat tumors and lesions in the brain. It is not a knife in the normal sense of the word, and the surgeon makes no incisions. The surgery focuses extremely precise gamma radiation beams on a specific area within the brain while the patient's head is enclosed in a helmet-like device (collimator) which holds the patient still and allows the beams to enter through small openings.

During treatment all of the radiation beams meet at a focal point. The individual beams are too weak to damage healthy tissue on their way to the target area, but very powerful when they simultaneously merge at a single focal point. This can be compared with the principle of a magnifying glass in the sun.

Dr. Strash will talk in depth about the Gamma Knife and provide an overview about other equipment used for intracranial radiosurgery. Dr. Strash will also discuss other medical applications of radiation used at the Johnston-Willis Medical Center. Dr. Strash is a Radiological and Medical Physics Consultant at the Johnston-Willis Medical Center. He has extensive experience in Radiological Physics, having worked in prestigious institutions such as Argonne National Laboratory, the Macalaster College in Minnesota or the Medical College of Virginia.