

# Radiosurgery

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Radiosurgery is a medical procedure which allows non-invasive brain surgery, i.e., without actually opening the skull, by means of directed beams of ionizing radiation. It is a relatively recent technique, which is used to destroy, by means of a precise dosage of radiation, intracranial tumors and other lesions that could be otherwise inaccessible or inadequate for open surgery. There are many nervous diseases for which conventional surgical treatment is difficult or has many deleterious consequences for the patient, due to arteries, nerves, and other vital structures being damaged.



## Recent Publications on Radiosurgery:

- [Re-irradiation of head and neck carcinoma.](#)  
*To determine the efficacy of re-irradiation of patients with head and neck...* 11th October, 2008  
Department of Radiation Oncology, University of Florida College of- *Am J Clin Oncol.* 2008 Aug;31(4):393-8. ([DOI Direct Link](#))
- [PET-CT in radiation oncology: the impact on diagnosis, treatment planning, and assessment of treatment response.](#)  
*OBJECTIVE: To review the role of hybrid positron emission tomography...* 11th October, 2008  
University of Pittsburgh Cancer Institute, University of Pittsburgh School- *Am J Clin Oncol.* 2008 Aug;31(4):352-62. ([DOI Direct Link](#))
- [Anniversary Paper: the role of medical physicists in developing stereotactic radiosurgery.](#)  
*This article is a tribute to the pioneering medical physicists over the...* 10th October, 2008  
University of Virginia Health Systems, Charlottesville, Virginia- *Med Phys.* 2008 Sep;35(9):4262-77.
- [Brain metastases: current management and new developments.](#)  
*PURPOSE OF REVIEW: To review the state-of-the-art and new developments in...* 9th October, 2008  
Division of Neuro-Oncology, Department of Neuroscience and Oncology,- *Curr Opin Oncol.* 2008 Nov;20(6):676-84. ([DOI Direct Link](#))
- [\[Surgical resection of gliomas in 2008.\]](#)  
*Surgical resection of gliomas is a well-established treatment. It allows a...* 8th October, 2008  
Service de neurochirurgie, hopital de la Pitie-Salpetriere, 47-83,- *Cancer Radiother.* 2008 Sep 30. ([DOI Direct Link](#))
- [\[Stereotactic radiosurgery nursing care.\]](#)  
*Stereotactic radiosurgery (SRS) is a minimally invasive and safe surgical...* 7th October, 2008  
College of Nursing, Taipei,- *Hu Li Za Zhi.* 2008 Oct;55(5):85-9.
- [Gamma ventral capsulotomy for treatment of resistant obsessive-compulsive disorder: A structural MRI pilot prospective study.](#)  
*Objective: The purpose of this study was to investigate regional...* 7th October, 2008  
Department of Psychiatry, University of Sao Paulo Medical School (FMUSP),- *Neurosci Lett.* 2008 Sep

27. ([DOI Direct Link](#))
- [Enhanced T1-weighted magnetic resonance changes in L4-L5 lumbar lesion after CyberKnife radiosurgery for schwannomatosis.](#)  
*Objective: The purpose of this study was to investigate regional...*4th October, 2008  
The Albert Einstein College of Medicine, Bronx, NY, USA.- Spine J. 2008 Sep-Oct;8(5):853-4.
  - [Management of nontraumatic intracranial hemorrhage.](#)  
*The modern treatment of spontaneous intracranial hemorrhages requires a...*4th October, 2008  
U.O. Neurochirurgia, Ospedale Civile di Legnano, Via Candiani 2, 20025,- Neurol Sci. 2008 Sep;29 Suppl 2:S274-6. ([DOI Direct Link](#))
  - [The rare association of moyamoya disease and cerebral arteriovenous malformations: a case report.](#)  
*A 36-year-old man was diagnosed with a right temporal lobe grade II...*4th October, 2008  
Department of Radiology, Chi-Mei Foundation Hospital, Tainan, Taiwan.- Korean J Radiol. 2008 Jul;9 Suppl:S65-7. ([DOI Direct Link](#))
  - [Cost-effectiveness analysis for trigeminal neuralgia: Cyberknife vs microvascular decompression.](#)  
*BACKGROUND/AIMS: We present the preliminary results of a...*3rd October, 2008  
Economic Evaluation Area, CERGAS Centre for Research on Healthcare- Neuropsychiatr Dis Treat. 2008 Jun;4(3):647-52.
  - [Morphological and functional MRI, MRS, perfusion and diffusion changes after radiosurgery of brain metastasis.](#)  
*Radiosurgery is a noninvasive procedure where spatially accurate and...*3rd October, 2008  
Department of Radiology and Center for Imaging Science, Samsung Medical- Eur J Radiol. 2008 Sep 29. ([DOI Direct Link](#))
  - [Radiosurgery: what the literature supports: t24.](#)  
*Radiosurgery is a noninvasive procedure where spatially accurate and...*1st October, 2008  
- Neurosurgery. 2008 Jun;62(6):1392. ([DOI Direct Link](#))
  - [Cranial Radiosurgery: Current State of the Art: PC19.](#)  
*Radiosurgery is a noninvasive procedure where spatially accurate and...*1st October, 2008  
- Neurosurgery. 2008 Jun;62(6):1387. ([DOI Direct Link](#))

## BioNews Results for Radiosurgery

- [Accuray Incorporated to Report First Quarter Fiscal Year 2009 Financial Results](#)  
*Montana's News Station: Oct 11 2008 2:59AM Matching: radiosurgery*
- [Accuray Incorporated to Report First Quarter Fiscal Year 2009 Financial Results](#)  
*KLFY: Oct 10 2008 11:02PM Matching: radiosurgery*
- [Accuray Incorporated to Report First Quarter Fiscal Year 2009 Financial Results](#)  
*KSLA: Oct 10 2008 10:39PM Matching: radiosurgery*
- [Riyadh KFSH to get innovative cancer cure system](#)  
*Zawya.com: Oct 10 2008 9:24AM Matching: radiosurgery*
- [Riyadh KFSH to get innovative cancer cure system](#)  
*Calibre Macro World: Oct 10 2008 3:23AM Matching: radiosurgery*
- [Riyadh KFSH to get innovative cancer cure system](#)  
*Arab News: Oct 9 2008 11:35PM Matching: radiosurgery*
- [North Shore Radiation Therapy Treating Cancer Using Rapid Arc\(TM\) Radiotherapy Technology, a Fast, Precise Can](#)  
*DiGiTAL50: Oct 9 2008 12:02AM Matching: radiosurgery*
- [North Shore Radiation Therapy Treating Cancer Using Rapid Arc\(TM\) Radiotherapy Technology, a Fast, Precise Can](#)  
*FinanzNachrichten.de: Oct 8 2008 3:26PM Matching: radiosurgery*
- [REMINDER: ORLive Presents: Revolutionizing Cancer Treatment With CyberKnife](#)

- NewsBlaze: Oct 8 2008 2:06PM Matching: radiosurgery*
- [REMINDER: ORLive Presents: Revolutionizing Cancer Treatment With CyberKnife Therapeutics Daily: Oct 8 2008 1:18PM Matching: radiosurgery](#)
- [First CyberKnife in Saudi Arabia to be Installed at Prestigious King Faisal Specialist Hospital and Research C](#)  
*NewsBlaze: Oct 8 2008 12:41PM Matching: radiosurgery*
- [REMINDER: ORLive Presents: Revolutionizing Cancer Treatment With CyberKnife](#)  
*Yahoo! Canada: Oct 8 2008 11:47AM Matching: radiosurgery*
- [REMINDER: ORLive Presents: Revolutionizing Cancer Treatment With CyberKnife](#)  
*Market Wire: Oct 8 2008 11:35AM Matching: radiosurgery*
- [REMINDER: ORLive Presents: Revolutionizing Cancer Treatment With CyberKnife](#)  
*Macro World Investor: Oct 8 2008 11:35AM Matching: radiosurgery*
- [REMINDER: ORLive Presents: Revolutionizing Cancer Treatment With CyberKnife](#)  
*Street Insider: Oct 8 2008 11:30AM Matching: radiosurgery*

### Radiosurgery Clinical Trials:



- [A Study of Spinal Radiosurgery](#)  
*Neoplasm; Arteriovenous Malformations*

### Radiosurgery Patents:



- 7239684- [Radiotherapy apparatus monitoring therapeutic field in real-time during treatment](#)
- 7302037- [Rotating gamma system visual inspection camera](#)
- 7306925- [Phage antibodies to radiation-inducible neoantigens](#)
- 7309336- [Catheter for delivery of energy to a surgical site](#)
- 7313222- [Method at a radiation therapy system](#)
- 7313430- [Method and apparatus for performing stereotactic surgery](#)
- 7317192- [High energy polyenergetic ion selection systems, ion beam therapy systems, and ion beam treatment centers](#)
- 7318805- [Apparatus and method for compensating for respiratory and patient motion during treatment](#)
- 7324626- [Volumetric imaging on a radiotherapy apparatus](#)
- 7327865- [Fiducial-less tracking with non-rigid image registration](#)
- 7330026- [Method and apparatus for mapping and correcting geometric distortion in MRI](#)
- 7302033- [Imaging geometry for image-guided radiosurgery](#)
- 7298819- [Flexible treatment planning](#)
- 7295649- [Radiation therapy system and method of using the same](#)
- 7242793- [Physically-based, probabilistic model for ultrasonic images incorporating shape.](#)

[microstructure and system characteristics](#)

- 7244851- [Inhibitors of IAP](#)
- 7260426- [Method and apparatus for tracking an internal target region without an implanted fiducial](#)
- 7266176- [Workspace optimization for radiation treatment delivery system](#)
- 7268358- [Method of modulating laser-accelerated protons for radiation therapy](#)
- 7273445- [Intraocular brachytherapy device and method](#)
- 7280865- [Anchored fiducial apparatus and method](#)
- 7283611- [Segmentation algorithmic approach to step-and-shoot intensity modulated radiation therapy](#)
- 7287017- [Decision engine](#)
- 7295648- [Method and apparatus for treatment by ionizing radiation](#)
- 7330578- [DRR generation and enhancement using a dedicated graphics device](#)
- 7333591- [Method for the planning and delivery of radiation therapy](#)
- 7378249- [Treatment of cancer using TLR3 agonists](#)
- 7381178- [Treatment of spinal metastases](#)
- 7391849- [Energy monitoring target for x-ray dose-rate control](#)
- 7399977- [Apparatus and method for determining radiation dose](#)
- 7400700- [Non-diagnostic stereoscopic x-ray tracking of moving objects in the context of radiotherapy and radiosurgery, with time-offset image recording](#)
- 7400755- [Inverse planning using optimization constraints derived from image intensity](#)
- 7402312- [Antibodies to vascular endothelial growth factor 2 \(VEGF-2\)](#)
- 7402392- [In vivo panning for ligands to radiation-induced molecules](#)
- 7402819- [Respiration phantom for quality assurance](#)
- 7412029- [Treatment planning, simulation, and verification system](#)
- 7366562- [Method and apparatus for surgical navigation](#)
- 7366278- [DRR generation using a non-linear attenuation model](#)
- 7362848- [Method for automatic anatomy-specific treatment planning protocols based on historical integration of previously accepted plans](#)
- 7338670- [Use of an agent that restores tissue perfusion and oxygenation](#)
- 7341552- [Gene sets for glioma classification](#)
- 7343030- [Dynamic tumor treatment system](#)
- 7345081- [Azabicyclo-octane inhibitors of IAP](#)
- 7348003- [Methods of treating cancer using antibodies that immunospecifically bind to TRAIL receptors](#)
- 7349730- [Radiation modulator positioner](#)
- 7352370- [Four-dimensional volume of interest](#)
- 7356120- [Integrated quality assurance for in image guided radiation treatment delivery system](#)
- 7357934- [Intracranial botulinum toxin therapy for focal epilepsy](#)
- 7361341- [Methods of treating cancer using antibodies that immunospecifically bind to trail receptors](#)
- 7426318- [Motion field generation for non-rigid image registration](#)

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