



**CYBERKNIFE® ROBOTIC
RADIOTHERAPY SYSTEM
PATIENT BROCHURE**

CyberKnife®
ACCURAY®

What is the CyberKnife® System?



Though its name may conjure up images of scalpels and surgery, the CyberKnife® Robotic Radiosurgery System involves no cutting. For many patients, the CyberKnife treatment can offer a non-invasive alternative to surgery for the treatment of both cancerous and non-cancerous tumors.

The CyberKnife System is composed of a radiation delivery device, called a linear accelerator (or Linac), which is mounted on a robotic arm. The flexibility of the robotic arm enables the CyberKnife System to deliver radiation to tumors anywhere in the body, including the brain, head and neck, spine, lung, prostate, liver, pancreas, breast and other soft tissues. The CyberKnife System also utilizes sophisticated software and advanced imaging to track tumor and patient movement and adjust the beams of high-dose radiation to ensure treatment is delivered with a high degree of accuracy. Because of this exceptional tracking ability, the CyberKnife System eliminates the need for patients to

have stabilizing frames bolted to their head or limit their breathing during treatment to minimize movement of the tumor.



With the CyberKnife System, patients can complete treatment in one to five days, compared to the weeks it takes to complete a course of conventional radiation therapy. In addition, it provides a pain-free, non-surgical option for patients who have inoperable or surgically complex tumors, or who may be looking for an alternative to surgery.

What makes the CyberKnife Different?

Despite the best attempts of clinicians, it is virtually impossible to prevent patients and





their internal anatomy from moving during radiation treatments. With conventional treatment, patients are subjected to invasive and uncomfortable

methods to minimize their movement as much as possible.

These immobilization techniques can include attaching a metal frame directly into a patient's skull, compression of the abdomen to limit breathing and movement during treatments, stabilizing body casts, and injection of rectal balloons or hardening agents into the rectum to stabilize the prostate, to name just a few.

Accuray Incorporated, the makers of the CyberKnife® System, realized early on that patients, and their internal anatomy, are still going to move, no matter what means was taken to prevent it. Additionally, they believed that with greater accuracy in radiation delivery, the CyberKnife System could provide more effective treatments by minimizing the radiation exposure to healthy surrounding tissue and limit some of the short and long-term side effects that are common with conventional treatments.



The company set out, from the start, to develop a radiation treatment system with patient movement and comfort in mind. Rather than retrofitting existing technology, Accuray took

a new approach by developing an innovative design that could effectively address patient and tumor movement during treatment and eliminate the need for antiquated techniques, additional procedures, and patient discomfort. Instead of restricting patient movement, the CyberKnife System's leading-edge technology was designed to move with the tumor. This unique capability results in the delivery of more accurate and higher doses of radiation to the tumor, while avoiding the surrounding healthy tissue and reducing the side effects commonly associated with conventional radiation therapy treatments.



Benefits of CyberKnife® Treatments

- Pain-free
- Non-invasive
- No anesthesia required
- Outpatient procedure
- Exceptional accuracy spares healthy tissue and organs
- No recovery time
- Immediate return to normal activity
- No invasive head or body frame
- No breath holding or “respiratory gating” required during treatment

CyberKnife® patients routinely report that they have no side effects or minimal side effects from their treatment, and in most cases, they can immediately return to their normal daily activities. Speak with your doctor about possible side effects you may encounter.



Is the CyberKnife Treatment Right for Me?

With the CyberKnife System, there is not a one-size-fits-all approach to patient care. The CyberKnife System’s innovative design and use of leading-edge technologies enables your physician to tailor treatments specific to your tumor(s) shape in order to ensure the best possible outcome. The unique features of the CyberKnife System that allow for individualized treatments include:



Real-Time Image Guidance

– The CyberKnife System uses imaging software to track and continually adjust treatment for any movement of the patient or tumor. Unlike other

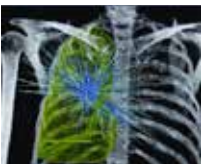
radiation treatments that require patients to hold their breath during treatment delivery or rely on the use of rigid head frames that are screwed into the patient’s skull to minimize motion, the CyberKnife System will allow you to breathe normally and remain comfortable during your treatments.





Unlimited Flexibility & Freedom – The CyberKnife® System’s robotic maneuverability

allows your physician to deliver a highly individualized treatment. With a linear accelerator mounted on a flexible robotic arm, the CyberKnife clinician can select from thousands of different angles from which to deliver radiation treatments. A typical CyberKnife treatment is comprised of 150 to 200 beams, each coming from a unique angle. This is a significant improvement over traditional static or fixed radiation delivery systems, which typically only can treat a tumor with seven to nine discrete beams and require patients to be manually adjusted to deliver radiation from additional angles.



Unrivaled Accuracy – The CyberKnife System can treat moving tumors with pinpoint accuracy that is unmatched by

other radiosurgery systems. This is especially important when treating tumors that move with any bodily function, which may range from predictable movements caused by breathing to unpredictable movements due to other bodily functions, such as a gas bubble moving through the rectum. The CyberKnife System can essentially “paint” your tumor with a high-dose of radiation by targeting the tumor from almost every conceivable angle. Unrivaled by any other technology, the CyberKnife beams are guided by the actual movement of the tumor.

The X-rays in the CyberKnife treatment room are constantly taking pictures of the tumor, comparing its actual location to the treatment plan, and instantly reporting it back through a sophisticated software program to the robot. The robot responds to the new location and instantly adjusts the beam to accurately target the tumor. This unique tracking capability results in an extremely accurate delivery of radiation, sparing your surrounding healthy tissue and critical organs from damage.

Convenient – Depending on the type of tumor, you will likely need only one to five CyberKnife treatments. With other radiation systems, you could require dozens of treatments spread out over several weeks. CyberKnife patients routinely report that they have minimal side effects from their treatment, and in most cases, they can immediately return to their normal daily activities.



Patient Safety – From design to delivery, patient safety is paramount with any CyberKnife treatment. Unlike other gantry based linear accelerators, the CyberKnife operates on a fully integrated closed loop system. Each function works in unison to ensure the safest possible patient experience.

Who Can Get CyberKnife® Treatments?



It is up to your medical team to determine whether the CyberKnife® treatment is right for you. Your

doctors will make the decision about whether to treat with the CyberKnife System based on their clinical experience. Other factors that will influence their opinion are the tumor type, location and size of the tumor, and extent of disease. It is important to keep in mind that sometimes there are many different approaches and opinions can differ. The CyberKnife System is versatile and can treat cancers from early stages to advanced disease and, in some cases, the treatment can be partnered with surgery, chemotherapy, and conventional radiation therapy.

If you are interested in finding out if CyberKnife treatments are right for you, please contact your local CyberKnife center. CyberKnife locations can be found online at www.CyberKnife.com.

Your CyberKnife Treatment - Step-by-Step

After or during your diagnoses, your physician will determine if you may benefit from the

CyberKnife treatment. If you are a candidate, you can expect that your CyberKnife treatment(s) will involve a team approach in which several medical professionals will collaborate to develop a treatment plan designed just for you.

The CyberKnife treatment process generally requires six simple steps from start to finish:

1. **Evaluation** – After being diagnosed, you can contact a CyberKnife center directly or have your treating doctor provide you with a referral. Though it may vary based on your specific treatment, you will likely work with a team of clinicians, including a radiation oncologist, surgeon, medical physicist, radiation technician and nurse coordinator.
2. **Fiducial Placement** – Depending on the type and location of your tumor, your team may recommend placement of fiducials – which are small gold markers inserted near the tumor – to help identify the exact location of your tumor during treatment. Not all treatments require fiducial markers. The determination will be made based on the density, size and location of the tumor.
3. **Imaging** – Prior to treatment, an MRI and a CT or CT/PET scan is taken to determine the size, shape and location of your tumor(s).
4. **Treatment Planning** – Using images from a CT scan, the data is digitally transferred

to the CyberKnife® System's treatment planning workstation, where a qualified physician identifies the tumor(s) to be targeted and the surrounding vital structures to be avoided. This plan is designed to match the desired radiation dose to the tumor location and limit radiation exposure to the surrounding healthy tissue.

5. Treatment – Once the treatment plan is developed, you can begin your CyberKnife treatments. At the CyberKnife center, you will be comfortably positioned on the treatment table. Then the CyberKnife System's computer-controlled robot will carefully move around you to deliver radiation at various locations as prescribed by your treatment plan. At the same time, the CyberKnife System is taking continual X-ray images that will provide real-time information about the location of your tumor and enable the system to dynamically track and correct for any movement of your tumor. Depending on the type and location of your tumor, you can expect to undergo between one and five treatment sessions.

6. Recovery – Most CyberKnife patients do not experience side effects. Depending on the type of treatment you receive, your side effects will vary. Patients that do experience side effects are typically mild and considered acute and do not require intervention. Patients should speak to their doctor and discuss what side effects may occur and learn about potential risks.

Insurance Coverage

Medicare and private insurance carriers in most states cover CyberKnife treatments.

Your local CyberKnife center also can be a good source of information regarding coverage by your specific medical carrier. If you have additional questions, or need assistance with insurance-related matters, please call Accuray at +1.888.522.3740, ext. 4301 or e-mail patientinfo@accuray.com.



Patient Quotes



"I went back in for my check-up and the tumor was gone – only airspace was left. My cough is gone, and I am feeling like I am back in great health and telling as many people as I can about my incredible

CyberKnife treatment story."

- Lewis, treated for lung cancer in 2011



"At age 79 and having had major surgery before, I had no desire to go through the pain and long recovery again when I was diagnosed with lung cancer. My doctor recommended CyberKnife treatments,

which required no hospitalization, no invasion of your body and no after effects. It simply delivers high doses of radiation to the tumor, and then you get off table and go home and resume your normal life."

- Kay, treated for lung cancer in 2008



"After being diagnosed with prostate cancer, I was concerned about the risks and side effects invasive treatments would have on my relationship with my wife. The CyberKnife allowed me to avoid

these potentially devastating complications and get back to my normal life with little to no side effects."

- Scott, treated for prostate cancer in 2006



"Surgery to remove my brain tumor could have resulted in deafness in my left ear, facial paralysis, and balance problems for the rest of my life. With two young children, I was concerned about

enduring a long recovery and the possibility of permanent complications. But with CyberKnife, the journey to treat my tumor was very easy. My quality of life never changed and I experienced no side effects."

- Suzanne, treated for a acoustic neuroma/brain tumor in 2005

View videos and more patient stories like these on www.CyberKnife.com

As of this publication, these patients are disease free.

About Accuray

Based in Sunnyvale, Calif., Accuray (Nasdaq: ARAY) is the premier radiation oncology company that develops, manufactures and sells personalized innovative treatment solutions that set the standard of care, with the aim of helping patients live longer, better lives. Our leading edge technologies are designed to deliver radiosurgery (SRS), stereotactic body radiation therapy (SBRT), intensity modulated radiation therapy (IMRT), image-guided radiation therapy (IGRT) and adaptive radiation therapy.

In addition to the CyberKnife® System, Accuray also manufactures the TomoTherapy® System. The TomoTherapy System is a fully-integrated, 3D image-guided intensity modulated radiation therapy (IG-IMRT) system. Through daily CT imaging, the TomoTherapy System allows clinicians to give each patient the most accurate and highest quality individualized treatments specifically tailored to their needs. Unique helical delivery means a broader range of tumors can be treated, expanding options for more patients. Accuray advises that patients should discuss with their physicians their treatment options in order to determine which one is best for their individual case.

CyberKnife Patient Education Website

This website will provide you with greater detail about the CyberKnife System, benefits of CyberKnife treatment and the locations of CyberKnife centers, as well as other educational resources.

www.CyberKnife.com

Additional Patient Resources:
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