



# ROBOCOUCH®

## PATIENT POSITIONING SYSTEM



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*The RoboCouch System has a low patient loading height, ideal for patients with limited mobility.*



### HIGHLIGHTS:

- Reduced patient setup time
- High accuracy positioning
- Patient positioning in six degrees of freedom, anterior/posterior, superior/inferior, left/right, roll, pitch and yaw
- Treatments with patients' knees flat or elevated
- Load patients in a low, chair-like position (optional)
- Automatic patient alignment from the control console
- Supports patients up to 500 pounds (227 kilograms)
- Ergonomic hand controller allows for single-handed operation and 3-way speed control

ACCURAY®  
**RoboCouch®**

*Developed for unparalleled targeting accuracy, the RoboCouch® System is the world's most advanced Patient Positioning System supporting the sub-millimeter accuracy requirements of full-body radiosurgery. Combined with the unhindered robotic mobility of the CyberKnife® System, the RoboCouch System offers unprecedented accessibility to tumors anywhere in the body.*



*The RoboCouch combined with the CyberKnife System provides the ultimate robotic stereotactic radiosurgery experience.*

### **Advanced patient positioning**

Fully integrated with the CyberKnife treatment delivery system, the RoboCouch System intelligently positions the patient to the planned treatment position with unprecedented accuracy—providing not only greater setup precision, but significantly streamlining the patient setup process. The unparalleled versatility of the system allows for automated patient positioning for treatments anywhere in the body including the head, spine, lung, pancreas, liver and prostate.

### **Intelligent 6D correction in real-time**

The RoboCouch System includes the revolutionary ability to automatically position or re-position the patient from the control room—eliminating the need for staff to interrupt treatments for time-consuming manual patient repositioning. And with a full six degrees of freedom, the RoboCouch System has the automated ability to control pitch, roll and yaw corrections—corrections required for the sub-millimeter demands of radiosurgical procedures.

## ROBOCOUCH® PATIENT POSITIONING SYSTEM

*The RoboCouch System is capable of automatically positioning the patient in six degrees of freedom from bedside or planning station.*



*The RoboCouch System includes a single-hand operation pendant, wireless Synchrony interface module and a charging/storage unit.*

### **Superior ergonomics and usability**

With unhindered mobility, the RoboCouch System includes optional seated load capabilities, making accessibility for mobility-limited patients simple and comfortable. And for greater patient flexibility, the RoboCouch System accommodates a weight capacity of up to 500 pounds (227 kilograms). The rigid robotic design of the RoboCouch System provides for uncompromised stability and swift maneuverability.



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*The CyberKnife System and CyberKnife options may not be available in some countries. For a complete list of CyberKnife Systems and options available, please contact Accuray at [sales@accuray.com](mailto:sales@accuray.com).*

ACCURAY®

CyberKnife®



## A COMPLETE ROBOTIC RADIOSURGERY SYSTEM

*The Accuray CyberKnife® System allows clinicians to provide patients with more accurate treatments and an improved quality of life:*

### **Synchrony® Respiratory Tracking System** –

Continuously synchronizes beam delivery to the motion of the tumor, allowing clinicians to significantly reduce margins while eliminating the need for gating or breath-holding techniques.

**Xsight® Lung Tracking System** – Tracks the movement of the lung tumors directly, without fiducials, with accuracy, reliability and self-adjusting repeatability.

**Xsight Spine Tracking System** – Eliminates the need for surgical implantation of fiducials by using the bony anatomy of the spine to automatically locate and track tumors with sub-millimeter accuracy.

### **Iris™ Variable Aperture Collimator** –

Using tungsten leaves to rapidly manipulate beam geometry, the Iris Collimator enables treatments of unrivaled conformality and unparalleled preservation of healthy tissue.

### **Xchange™ Robotic Collimator Changer** –

Automatically exchanges collimator sizes, allowing for highly conformal treatments to be delivered more efficiently.

### **RoboCouch® Patient Positioning System** –

Robotically aligns patients accurately with six degrees of freedom, reducing patient setup times and enabling faster treatments.

**Linear Accelerator** – Light weight 6MV X-band linear accelerator with an output of 600 or 800 MU/min, accurately delivers highly collimated beams of radiation providing superior conformality when treating patients.

### **MultiPlan® Treatment Planning System** –

This intuitive workflow-based workstation designed for radiosurgery, enables the creation of plans that have excellent conformality and coverage with steep dose gradients.

**Sequential Optimization** – With our user-defined, sequentially prioritized planning objectives, treatment plans are custom tailored to the unique clinical characteristics of each patient.

### **4D Treatment Optimization and Planning System** –

Takes into account not only the movement of the target but also the movement and deformation of the surrounding tissue.

**Monte Carlo Dose Calculation** – Often considered the gold standard dose calculation, the CyberKnife System's Monte Carlo Dose Calculation produces results in minutes compared to what typically requires hours or days with other systems.

## CYBERKNIFE® SYSTEM HIGHLIGHTS

- **Continual image guidance**

Without the need for staff intervention or treatment interruption, the CyberKnife's revolutionary image guidance technology continuously works in concert with the treatment delivery system to automatically track, detect and correct – managing even the slightest target movements throughout the entire treatment.

- **Flexible robotic maneuverability**

Driven by continual imaging and intelligent motion corrections, the CyberKnife's robotic manipulator automatically positions the linear accelerator to an unprecedented range of positions – allowing for access to virtually any tumor from any direction.

- **Dynamic motion targeting**

With constant updates of target position throughout the respiratory cycle, the CyberKnife System delivers beams synchronized in real-time to targets that move with respiration while adapting to changes in breathing patterns – delivering highly conformal radiation with considerably smaller margins and unprecedented accuracy.

- **Unrivaled dose conformality**

Unconstrained by clockwise/counter-clockwise gantry rotations, the robotic mobility of the CyberKnife System delivers diverse non-coplanar and non-isocentric treatments to precisely sculpt radiosurgical doses to the unique contours of the target.

# ACCURAY INCORPORATED

*Our Business Begins with Patients™*

**Accuray's philosophy, *Our Business Begins with Patients™*, drives the company's commitment to advancing the field of robotic radiosurgery through innovation, while also establishing its products as the standard of care.**

Accuray's success is measured by the success of its customers in delivering the most advanced care to their patients. Medical institutions worldwide have expanded their clinical programs using Accuray's CyberKnife® Robotic Radiosurgery System by treating patients that may have been considered untreatable, while building a more comprehensive oncology practice.

To this end, Accuray has developed collaborative partnerships with clinicians, researchers and patients. These partnerships help educate clinicians and patients on the benefits of robotic radiosurgery, enabling Accuray to refine and upgrade its technology based on user and patient feedback. This feedback allows Accuray to develop innovative programs that improve clinician's success while differentiating Accuray from traditional medical device companies.

The result, the CyberKnife Robotic Radiosurgery System, a pain-free treatment alternative for patients that eliminates invasive surgery and results in a significantly improved quality of life for cancer patients the world over.



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