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Devices or features presented in this brochure may not be available for sale in all markets.

**Intended Use Summary**

Varian Medical Systems' linear accelerators are intended to provide stereotactic radiosurgery and precision radiotherapy for lesions, tumors, and conditions anywhere in the body where radiation treatment is indicated.

**Safety**

Radiation treatments may cause side effects that can vary depending on the part of the body being treated. The most frequent ones are typically temporary and may include, but are not limited to, irritation to the respiratory, digestive, urinary or reproductive systems, fatigue, nausea, skin irritation, and hair loss. In some patients, they can be severe. Treatment sessions may vary in complexity and time. Radiation treatment is not appropriate for all cancers.

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## EXCEPTIONAL TECHNOLOGY IS A MAINSTAY FOR EVERY CLINIC

The VitalBeam™ system brings advances and innovation to every radiation oncology clinic.

Using the same technology platform as the TrueBeam® system, VitalBeam can be designed and configured for the cases you treat the most. Its flexibility and speed make it a valuable addition to centers of any size.

In large radiation oncology practices and networks, VitalBeam fits seamlessly and harmoniously into the workflow, creating a single, unified clinical environment that enhances efficiency, productivity and safety.

VitalBeam is also the ideal radiotherapy platform for smaller centers. As the daily anchor of your radiotherapy practice, the VitalBeam system can help you achieve the precision, quality, and safety of treatment that is available in the largest and most prestigious cancer centers in the world. Your staff can have the pride and confidence in working with VitalBeam, knowing that they are offering patients care that is truly world-class.

With the addition of VitalBeam to its powerful array of linac platforms, Varian Medical Systems can help position your clinic at the forefront of cancer care.





## CONFIDENCE BUILT ON PERFORMANCE AND PRECISION

Medicine does not advance on its own. We combined innovative technology with customer insights to arrive at this intelligent solution for the wide spectrum of cases you encounter every day.

### **Innovative beam generation for exceptional performance**

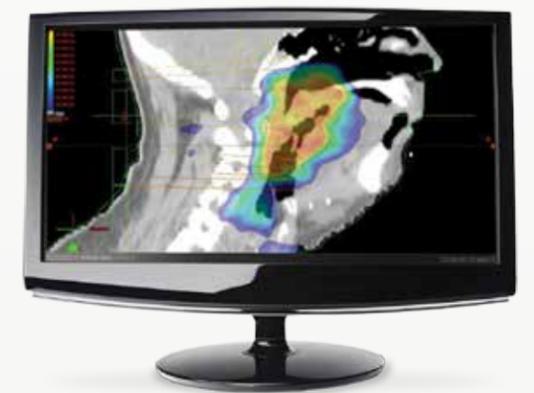
VitalBeam shares the TrueBeam platform's unique, patented beam generation technology. It can be configured with up to three photon and six electron energies for optimal treatment of a variety of cases. It offers High-Intensity Mode (Flattening Filter Free) technology for faster treatments of complex cases.

### **Integrated imaging and delivery for advanced treatments**

The VitalBeam system integrates respiratory gating, imaging and treatment delivery to create a streamlined system. With this integration, you could deliver complex treatments using advanced radiotherapy techniques, including IMRT and RapidArc® radiotherapy technology in a routine treatment session.

Increase confidence in your delivery by taking advantage of VitalBeam's high quality imaging capabilities. Intelligent automation and seamless integration minimize additional time for imaging. Respiratory gating allows you to monitor patient breathing and compensate for tumor motion while efficiently delivering treatment.

With such a supportive system, you can image and treat with confidence.





# TAKING INTEGRATION TO THE NEXT LEVEL

The impressive standard of integration demonstrated by VitalBeam has the power to elevate your clinical practice.

## Putting the flow in workflow

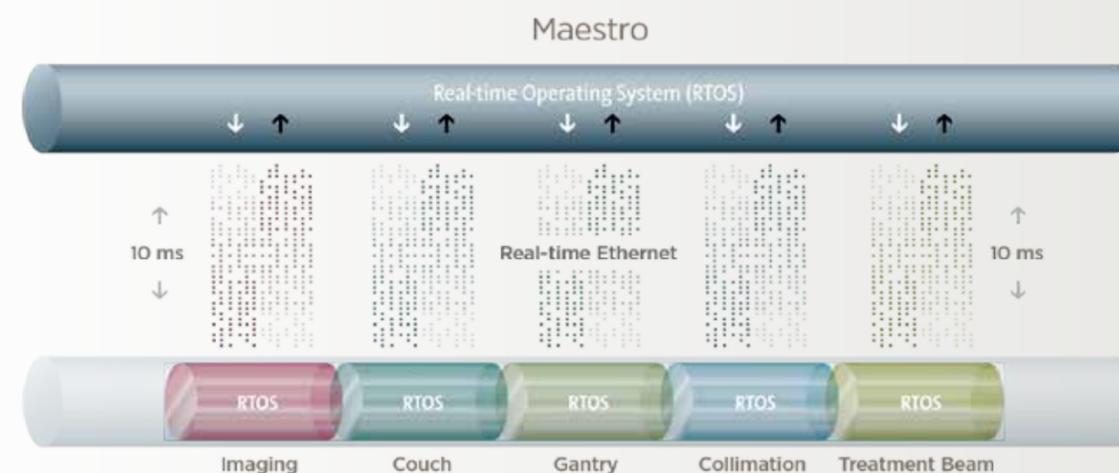
VitalBeam integrates with the ARIA® oncology information system and the Eclipse™ treatment planning system to simplify planning and manage treatment workflows. You can save time and condense tasks with automated, customizable sequences.

## Innovative control for speed and efficiency

The Maestro control system from the TrueBeam platform lies at the heart of the VitalBeam system's advanced performance. It conducts the system by directing, synchronizing and monitoring all of the system's fully integrated, functional components or "nodes." Maestro's sophisticated orchestration of dose, motion and imaging integrates all of the system's moving parts, making treatment fast and efficient.

## A unified clinical environment

In the Varian clinical environment, delivering quality care becomes intuitive, seamless, and natural. As treatment techniques become more complex, the integration and simplicity intrinsic to VitalBeam create efficiency and confidence.





# SUPPORT ALWAYS AT YOUR SIDE

## Safety that is second nature

The visual cues built into the VitalBeam system provide an intuitive operating environment and can help to enhance safety as well as reduce operation times.

For instance, buttons on the controls light up in the correct order to guide the operator through each step. Built-in layers of safety have been added throughout the system, including functions to help avoid issues before they occur. As an added safeguard, the system automatically performs accuracy checks every ten milliseconds, throughout the entire treatment. At the control console, you can visually monitor your patient using the LiveView CCTV system. With these design improvements, therapists can focus their attention on the patient.

## Machine Performance Check

Machine Performance Check (MPC) is an integrated self-check tool that takes advantage of the advanced automation and intelligence of your VitalBeam system. It is designed for fast and reliable daily system testing, before patient treatments begin. The machine checks are usually performed in less than five minutes by the operator.

## Remote connection for faster support

The VitalBeam was built with service in mind. Its integration with Varian SmartConnect® technology allows for more efficient remote support and diagnosis of issues. The result is faster response, less downtime and a quicker return to availability.

VitalBeam includes additional built-in features to help Varian support your clinic efficiently.



## Adjust and collaborate remotely

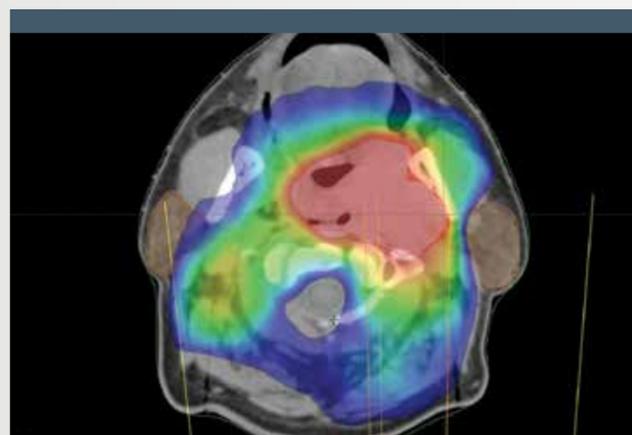
Without making a trip to your site, Varian experts can help you adjust and calibrate your machine. They can view remotely the effect of adjustments made locally and provide immediate feedback. Adjustments are accomplished faster and clinical availability may be increased.

## Upgrade software and features

SmartConnect gives you fast access to upgrades, which can be installed remotely with minimal downtime and help you stay at the forefront of radiotherapy technology.

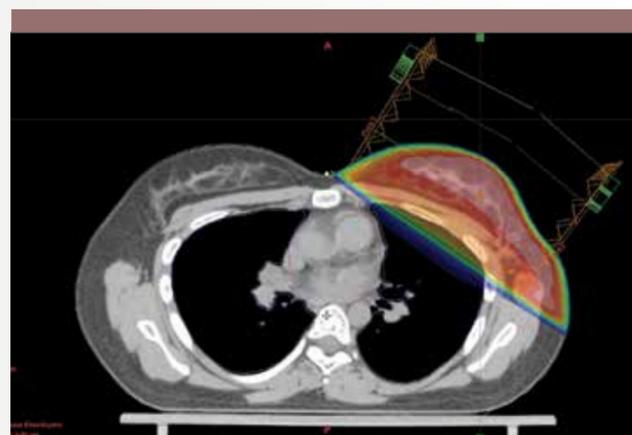
# VERSATILE TECHNOLOGIES. VERSATILE TREATMENTS.

A breadth of technology provides versatility for treatments throughout the body. The VitalBeam system addresses a diverse range of complex clinical cases such as those in the head and neck, breast, lung, pelvis and more.



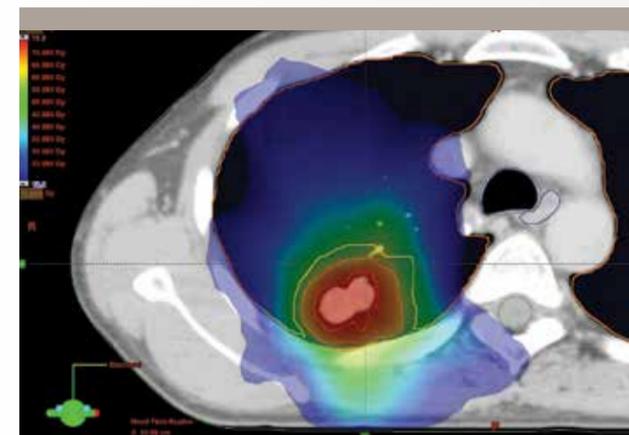
## Head and Neck

- Multiple arcs, partial arcs or a combination can be planned and seamlessly delivered using RapidArc radiotherapy technology
- A range of diagnostic imaging studies can be introduced in treatment planning to assist in accurate contouring of the target
- The real-time control system synchronizes and choreographs all elements of delivery 100 times per second
- Imaging hardware and software allow capture of high-quality cone-beam CT images with lower concomitant dose
- Integration of SmartAdapt™ deformable registration algorithms provide a convenient means for clinicians to account for anatomical changes during the course of treatment



## Breast

- IMRT tools such as field-in-field help create treatment plans designed to minimize radiation exposure of the heart and healthy lung tissue
- Treat patients in the prone position using the Pivotal™ treatment solution for prone breast care to help minimize dose to critical structures such as the heart and lung
- Integration of technologies such as real-time beam gating can allow deep inspiration breath hold techniques to minimize dose to critical structures



## Lung

- Respiratory gating allows the reduction of irradiated volumes when compared with large ITV-based approaches<sup>1</sup>
- Fluoroscopic, kV, MV imaging and CBCT along with the capability to mix and match from the menu of imaging possibilities allows clinicians to tailor treatment delivery
- To reduce discrepancies between planned dose and delivered dose, Varian's Acuros® XB algorithm provides Monte Carlo equivalent dose calculations
- Contour propagation, intermediate dose calculation and a fine calculation grid all contribute to create an efficient and optimized treatment plan

<sup>1</sup> Data on file



## Prostate

- Deliver treatment with speed and accuracy using RapidArc radiotherapy technology and the Eclipse™ treatment planning system
- Using Smart Segmentation® knowledge-based contouring, physicians can take advantage of built-in expert cases or create their own cases to standardize treatment across the institution

# YOUR SYSTEM. YOUR WAY.

The VitalBeam system is built to help you grow. It is a highly customizable treatment platform. You can add capabilities and expand your offerings in step with your clinical and business goals.



## MV only system:

- 2D MV imaging using the 43x43cm<sup>2</sup> digital imager to position the patient based on bony anatomy
- An optional 2.5MV imaging beam brings a higher contrast and lower dose than traditional MV imaging techniques



## Customizing your system:

### RapidArc

- Complex cases can be treated more efficiently

### Respiratory Gating

- Monitor breathing and compensate for tumor motion

### High-Intensity Mode

- Faster treatment delivery through Flattening Filter Free (FFF) technology

## kV imaging system:

- 2D kV imaging or 3D imaging using cone beam CT to visualize internal anatomy and position the patient accurately





## BROADEN YOUR FUTURE IN CANCER CARE

With VitalBeam, you can make your mark in cancer treatment. You can have improved workflow and clinical processes, plus the technology to enable precise treatments that take only minutes. Take a step forward and prepare for the future in cancer care. With VitalBeam, your clinic is ready.

