

# PROSTATE CANCER TREATMENT

CyberKnife VS SURGERY da Vinci

**Q:**

**A**

## da Vinci® Surgical Prostatectomy

**A**

## CyberKnife® Prostate SBRT

**Is this treatment experimental?**

**No**  
FDA Cleared in 2001\*

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**When were the first prostate treatments performed?**

May 2000 (Frankfurt, Germany)

Oct 2002 (Seoul, Korea)

**Is surgery involved?**

**Yes**  
Prostate is removed by surgical resection

**No**  
Non-invasive high-dose irradiation of the prostate

**Does treatment involve anesthesia?**

**Yes**  
Typically involves general anesthesia

**No**  
No anesthesia is required and patients relax comfortably during treatment

**Is treatment performed with robotic assistance?**

**Yes**  
Although, da Vinci cannot act on its own—treatment is still performed by a surgeon

**Yes**  
The CyberKnife Robot automatically delivers a pre-planned treatment under expert supervision

**Is a hospital stay required?**

**Yes**  
Typically 1-3 days of hospitalization

**No**  
Treatment is performed in 4-5 outpatient visits

**Are there risks of surgical complications?**

**Yes**  
Risks include infection, bleeding, cardiac, pulmonary complications and death

**No**  
Surgery is not performed

**Is a urinary catheter required after treatment?**

**Yes**  
Patients are sent home with a urinary catheter for 7-10 days after surgery

**No**  
A catheter may be used during treatment but is not required once treatment is completed

**Are there risks of other less serious urinary side effects?**

**Yes**  
Urinary stricture, retention, urinary tract infection in reported in 1-3% of patients

**Yes**  
Low-grade urinary retention, urgency, or hesitancy reported in 2-10% of patients

**Are there significant risks of serious rectal injury?**

**No**  
Serious rectal injury during surgery reported in only 0-2% of patients

**No**  
Mild rectal bleeding, urgency noted in only 0-5% of patients

**Is sexual function preserved in a majority of patients?**

**Yes**  
• There is a large reduction in sexual quality of life immediately after surgery and some recovery over the first year after surgery  
• Current nerve sparing techniques preserve erectile function in 61-90% of men\*\*\*

**Yes**  
• Little effect on sexual quality of life immediately after treatment  
• Current MRI targeted techniques preserve erectile function in 60-87% of men\*\*\*

**Is this treatment effective in treating prostate cancer?**

**Yes**  
93% PSA recurrence-free at 5 years

**Yes**  
93% PSA recurrence-free at 5 years

\* da Vinci® was FDA cleared in 2000 for prostate cancer surgery

\*\*The CyberKnife system was FDA cleared in 2001 to be used to treat tumors, lesions and medical conditions anywhere in the body where radiation is indicated

\*\*\*Because sexual quality of life is a complex, multiply determined construct, the estimates that are presented focus on erectile function per se. They were based on answers to patient questions that specifically addressed the frequency and/or quality of erections. For example, both the EPIC and the SHIM questionnaires ask patients whether they have erections sufficient for penetration, and how reliably. In other studies patients are asked directly about their ability to have an erection. There may be other studies that report results that fall outside of this range but that do not meet this criteria for construction of the stated ranges for this endpoint. \*Comparative data in table is not from a head-to-head study but rather from published independent studies