

da Vinci
MYOMECTOMY



Solutions for minimally invasive gynecologic surgery

The *da Vinci*[®] Surgical System

- › High-definition 3D vision
- › *EndoWrist*[®] instrumentation
- › *Intuitive*[®] motion

da Vinci MYOMECTOMY



Enables gynecologists to perform uterine-preserving myomectomies minimally invasively, reproducibly and following open surgical technique – with far greater surgical precision, efficiency and confidence in the durability of the repair.

The unsurpassed precision, dexterity and control provided by the *da Vinci* System offer potential for:

- ❖ Superior visualization of tissue planes, blood vessels and total anatomy, providing a potentially safer, more precise myoma dissection and enucleation
- ❖ Less invasive access to the myoma, potentially minimizing complications associated with a large abdominal incision
- ❖ Easier, quicker, multi-layered uterine closure
- ❖ Greater ability to discern tissue planes for easier, more precise dissection and enucleation of myomas
- ❖ Superior ability to reconstruct the uterine defect – at all required angles – for a true multi-layer, durable closure
- ❖ Allows the extension of a minimally invasive approach to more types of fibroids – larger, more numerous and more difficult to access myomas
- ❖ Control of the camera and all three operative arms provide the ultimate in surgical autonomy, accuracy and efficiency

Compared to open abdominal approach

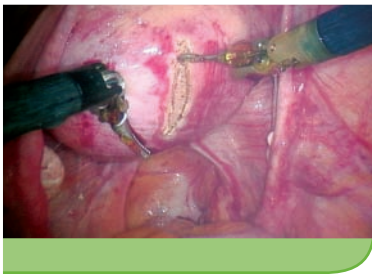
Compared to conventional laparoscopic approach

POTENTIAL PATIENT BENEFITS INCLUDE:

- ❖ Significantly less pain¹
- ❖ Less blood loss and fewer blood transfusions²
- ❖ Minimally invasive surgical option for women with large, numerous or difficult to access myomas³
- ❖ Fewer complications and risk of infection¹
- ❖ Shorter hospital stay¹
- ❖ Faster recovery and return to normal activities¹
- ❖ Small, dime-sized incisions for improved cosmesis⁴



Procedure Highlights



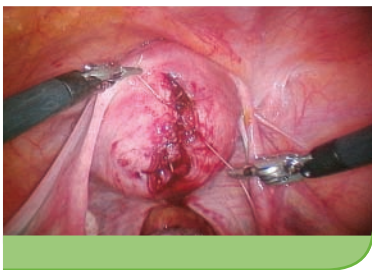
Hysterotomy

The Permanent Cautery Hook allows for a strategically placed horizontal or vertical incision, based upon the location of the pathology, while avoiding excessive divots or tunneling within the myometrium surrounding the myoma. The *PK™* Dissecting Forceps retract the incised myometrium and provide improved coagulation with minimal thermal spread to facilitate deliberate perpendicular cuts down to the myoma capsule.



Enucleation

Consistent and careful counter traction can be attained by utilizing the *EndoWrist®* Tenaculum Forceps while avoiding entrance into the endometrial cavity or premature avulsion of the myoma. The *PK* Dissecting Forceps facilitate development of the correct dissection plane surrounding the myoma while also providing more site-specific counter traction, ultimately facilitating a more precise dissection. The Permanent Cautery Hook is used to peel the myoma free of all attachments. The coagulation capability of the *PK* Dissecting Forceps should be prudently used to preemptively deal with vascular attachments predominantly at the myoma base.



Multi-Layered Suture Closure of Defect – Deep Layers

The *SutureCut™* Needle Driver securely holds CT-2 needles as they pass through the myometrial layers while providing integrated cutting following knot tying for improved operative efficiency. The *EndoWrist* Large Needle Driver allows for interrupted figure-of-eight stitches to be thrown and tied intracorporeally for a deep multi-layer closure. The unsurpassed visualization of the camera allows for accurate placement of imbricated stitches in additional layers and superior ability to reconstruct the uterine defect.

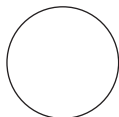


Multi-Layered Suture Closure of Defect – Superficial Layer

All *EndoWrist* Needle Drivers are fully wristed, enabling quick and efficient knot tying. The Large Needle Driver is used to perform a running baseball stitch with a SH needle, in order to close any dead space and avoid serosal pull-through. The *SutureCut* Needle Driver is used to manipulate the tissue for needle bite placement and to cut the suture upon completion of stitching for added surgical autonomy and operative efficiency.

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Interactive Video








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Technique Video



EndoWrist[®] Instruments Optimized for *da Vinci* Myomectomy

STANDARD/S PNs	TARGETED APPLICATIONS	FEATURES	POTENTIAL BENEFITS
 <p>PK™ Dissecting Forceps: 400227/420227 Requires Instrument Cords: 400228 (PK/SP) 400229 (G400)</p>	<ul style="list-style-type: none"> ✘ Grasping, dissecting and coagulating ✘ Delineating border of myoma ✘ Maintaining hemostasis during dissection 	<ul style="list-style-type: none"> ✘ PK technology advantage ✘ Audio and video impedance indicator 	<ul style="list-style-type: none"> ✘ Minimizes thermal spread, tissue sticking, charring and surgical plume compared to conventional bipolar forceps ✘ Provides quick, consistent vessel coagulation across a variety of tissues that can improve procedural efficiency ✘ Assists in determining tissue-effect endpoint, providing guidance as to when the treatment is complete
 <p>Permanent Cautery Hook: 400183/420183</p>	<ul style="list-style-type: none"> ✘ Create precise incisions into perimetrium ✘ Careful enucleation of the myoma 	<ul style="list-style-type: none"> ✘ Ceramic sleeve insulation 	<ul style="list-style-type: none"> ✘ Minimizes potential for insulation damage that could result in arcing
 <p>SutureCut™ Needle Driver: 400209/420209</p>	<ul style="list-style-type: none"> ✘ Multi-layered hysterotomy closure 	<ul style="list-style-type: none"> ✘ Integrated scissor blades ✘ Strong grasping force ✘ Tapered outer jaw profile 	<ul style="list-style-type: none"> ✘ Provides a convenient, efficient way of cutting suture after knot tying ✘ Reduces instrument exchanges, allowing for increased operative efficiency ✘ Laser-etched marking designed to minimize risk of accidental suture cutting ✘ Allows for secure handling of large needles such as CT-1 and CT-2 ✘ Tapered jaw facilitates fluid knot tying and suture sliding
 <p>Large Needle Driver: 400006/420006</p>	<ul style="list-style-type: none"> ✘ Multi-layered hysterotomy closure 	<ul style="list-style-type: none"> ✘ Carbide-insert style jaws ✘ Diamond pattern jaw profile 	<ul style="list-style-type: none"> ✘ Delivers secure needle control ✘ Provides firm grip and secure needle control
 <p>Tenaculum Forceps: 400207/420207</p>	<ul style="list-style-type: none"> ✘ Counter traction of myoma during enucleation ✘ Manipulation of fibroid uterine mass 	<ul style="list-style-type: none"> ✘ Wide opening jaw angle (75°) ✘ Strong, controlled closing force 	<ul style="list-style-type: none"> ✘ Excellent tissue purchase ✘ Facilitates optimal tissue grasping and retraction of myomas; securely grasps large myomas ✘ Allows for excellent approximation of the uterine bed; securely grasps and holds serosa for a precise, three-layer closure ✘ Facilitates tight closure of inner layers

Additional EndoWrist Instrument Options

STANDARD/S PNs	TARGETED APPLICATIONS	STANDARD/S PNs	TARGETED APPLICATIONS
 <p>Maryland Bipolar Forceps: 400172/420172</p>	<ul style="list-style-type: none"> ✘ Grasping, dissecting and coagulating 	 <p>Cobra™ Grasper: 400190/420190</p>	<ul style="list-style-type: none"> ✘ Counter traction of myoma during enucleation ✘ Manipulation of fibroid uterine mass
 <p>Hot Shears™ (Monopolar Curved Scissors): 400179/420179 Requires Tip Cover: 400180</p>	<ul style="list-style-type: none"> ✘ Precise incisions ✘ Careful enucleation of myoma 	 <p>Cadiere Forceps: 400049/420049</p>	<ul style="list-style-type: none"> ✘ Counter traction of myoma during enucleation ✘ Manipulation of fibroid uterine mass
 <p>Mega™ Needle Driver: 400194/420194</p>	<ul style="list-style-type: none"> ✘ Multi-layered hysterotomy closure 		

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Taking Surgery Beyond the Limits of the Human Hand.™



¹Piquion-Joseph JM, Navar A, Ghazaryan A, Papanna R, Klimek W, Laroia R, Robot-assisted gynecological surgery in a community setting, *Journal of Robotic Surgery* (2009) pp. 1-4

²Visco AG, Advincula AP, *Robotic Gynecologic Surgery; Obstetrics and gynecology* (2008) 112 (6), pp. 1369-1384

³Advincula AP, Song A, Burke W, Reynolds RK; Preliminary Experience with Robot-Assisted Laparoscopic Myomectomy, *Journal of the American Association of Gynecologic Laparoscopists* (2004)11(4):511-518

⁴www.brighamandwomens.org/patient/robotics

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While clinical studies support the use of the *da Vinci Surgical System* as an effective tool for minimally invasive surgery, individual results may vary. Before performing any clinical procedure utilizing the System, physicians are responsible for receiving sufficient training and proctoring to ensure that they have the requisite training, skill, and experience necessary to protect the health and safety of the patient. For technical information, including full cautions and warnings on using the *da Vinci System*, please refer to the System User Manual. Read all instructions carefully. Failure to properly follow instructions, notes, cautions, warnings, and danger messages associated with this equipment may lead to serious injury or complications for the patient. © 2009 Intuitive Surgical. All rights reserved. *Intuitive*, *Intuitive Surgical*, *da Vinci*, *da Vinci S HD*, *InSite*, *TilePro* and *EndoWrist* are trademarks or registered trademarks of Intuitive Surgical. All other product names are trademarks or registered trademarks of their respective holders. PN 871776 Rev B 7/09