

da Vinci[®]
TRANSORAL SURGERY



Solutions for minimally invasive head and neck surgery

The *da Vinci*[®] Surgical System

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

da Vinci[®] TRANSORAL SURGERY

A minimally invasive approach that provides an alternative to invasive open surgery and full-dose chemoradiation therapy for diseases of the head and neck.

The unsurpassed visualization, precision, dexterity and control provided by the *da Vinci* Surgical System offers the following potential surgeon benefits:

- ❖ Extends the ability to resect tumors transorally, avoiding in many cases an open approach via mandibulotomy¹
- ❖ Superior access to and visualization of the target anatomy, eliminating line of sight limitations associated with conventional transoral approaches²
- ❖ Improved capability for fine dissection and, if necessary, reconstruction, allowing for functional organ preservation¹
- ❖ Enhanced assessment and confirmation of safe oncologic margins for complete, en bloc tumor removal where possible²
- ❖ Fast operative times and significantly improved ergonomics¹



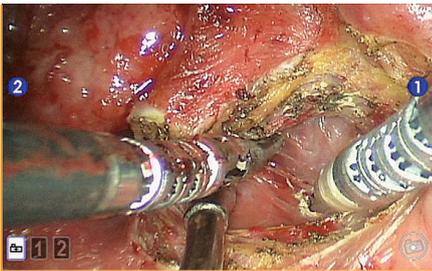
POTENTIAL PATIENT BENEFITS INCLUDE

- ❖ Low blood loss^{1,3,4,5}
- ❖ No visible scarring or disfigurement¹
- ❖ Low need for tracheotomy¹
- ❖ Minimization of need for chemoradiation therapy^{1,3}
- ❖ Low rate of complications⁴
- ❖ Short length of stay^{4,5}
- ❖ Fast recovery, return to normal speech and swallowing⁴
- ❖ Excellent cancer control⁴



¹ O'Malley Jr. B, Weinstein GS, Snyder W, Hockstein, NG. Transoral robotic surgery (TORS) for base tongue neoplasms. *Laryngoscope*, August 2006;116. ² Iseli TA, Kulbersh BD, Iseli CE, Carroll WR, Rosenthal EL, Magnuson JS. Functional outcomes after transoral robotic surgery for head and neck cancer. *Otolaryngol Head Neck Surg*. 2009 Aug;141(2):166-71. ³ Weinstein GS, O'Malley Jr. BW, Synder W, Sherman E, Quon H. Transoral robotic surgery, radical tonsillectomy. *Arch Otolaryngol, Head Neck Surg*, Dec 2007;133(12). ⁴ Weinstein GS, O'Malley Jr BS, Desai SC, Quon H. Transoral robotic surgery: does the ends justify the means? *Current Opinion in Otolaryngology & Head and Neck Surgery*, 2009;17:126-131. ⁵ Boudreaux BA, Rosenthal EL, Magnuson SJ, Newman RJ, Desmond RA, Clemons L, Carroll WR. Robot-assisted surgery for upper aerodigestive tract Neoplasms. *Arch Otolaryngol Head Neck Surg*, Apr 2009;135(4).

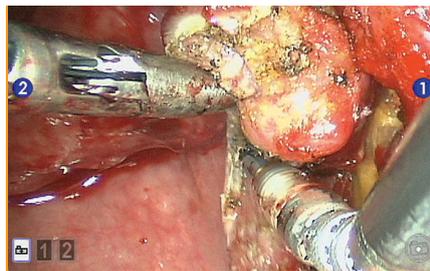
Procedure Highlights



Radical Tonsillectomy

Dissection of Tissues Lateral to Tonsil

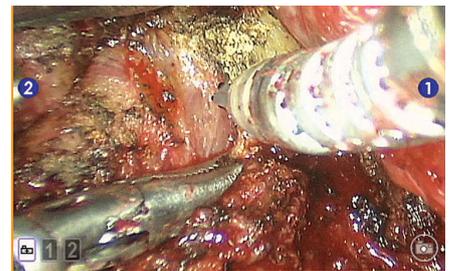
The *da Vinci* System's 3DHD visualization facilitates accurate identification and precise dissection of the buccal mucosa, pterygo-mandibular raphe and constrictor muscles, helping to maintain the appropriate lateral margin and to preserve the carotid arterial system.



Radical Tonsillectomy

Transection of Soft Palate

A meticulous tissue-sparing dissection can be performed at unique angles with the *EndoWrist* Maryland Dissector and Monopolar Cautery with Spatula Tip.



Tongue Base Resection

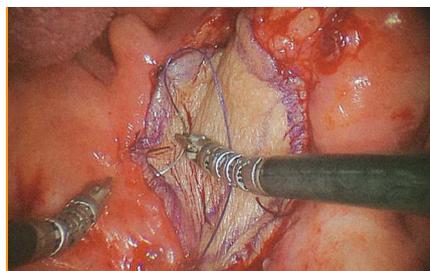
Resection of Tongue Base

For cancer that extends deeply into the tongue base, superior visualization and increased dexterity provided by *da Vinci* System facilitates dissection in the proper tissue planes.



Excision with Robotic Enhanced Laser Tool

Motion scaling and tremor filtration help ensure precise delivery of laser energy for clean cutting and en bloc tumor resection.



Palate Reconstruction

Intuitive motion and increased dexterity allow for precise suturing, even in the tightest of spaces, if a free-flap reconstruction or pharyngoplasty is required.



Supraglottic Partial Laryngectomy

Resection of the Paraglottic Space and Arytenoid

The fully articulating *EndoWrist* instruments allow surgeons to mobilize the ventricular mucosa and meticulously separate the false cord from the attachments on the arytenoid cartilage.

5 mm *EndoWrist*[®] Instruments and Accessories Optimized for *da Vinci*[®] Transoral Surgery (TORS)

	STANDARD/S, Si PNs	TARGETED APPLICATIONS	FEATURES	POTENTIAL BENEFITS
	5mm Flared Cannula For S and Si only 420262	<ul style="list-style-type: none"> Use in both arms of a TORS setup 	<ul style="list-style-type: none"> Flared distal tip Ability to connect a patient return electrode No need for cannula seals 	<ul style="list-style-type: none"> Reduced friction at distal exit of the cannula Provides electrical pathway for dissipation of energy from cannula Easy setup
	Maryland Dissector 400143/420143	<ul style="list-style-type: none"> Grasping and dissection of tissues Delicate mucosa handling 	<ul style="list-style-type: none"> Curved, tapered jaws 	<ul style="list-style-type: none"> Facilitates blunt tissue dissection Improves tissue grasping by allowing large overall tissue purchase
	Monopolar Cautery with Spatula Tip 400142/420142 (Instrument) 400160 (Spatula)	<ul style="list-style-type: none"> Dissection & coagulation 	<ul style="list-style-type: none"> Monopolar cautery device Long paddle blade design 	<ul style="list-style-type: none"> Safely coagulates tissues and maintains hemostasis Facilitates atraumatic blunt dissection
	5Fr Introducer Instrument (for laser application) 400225/420225	<ul style="list-style-type: none"> Tissue-sparing dissection 	<ul style="list-style-type: none"> Delivery of laser probes 	<ul style="list-style-type: none"> Tremor-free laser application
	Needle Driver 400117/420117	<ul style="list-style-type: none"> Functional reconstruction of tissue excision defects 	<ul style="list-style-type: none"> Diamond pattern jaw profile 	<ul style="list-style-type: none"> Delivers secure needle control Provides firm grip & handling of multiple needle sizes
	Schertel Grasper 400139/420139	<ul style="list-style-type: none"> Grasping and retraction of tissues 	<ul style="list-style-type: none"> 20 mm jaw Serrated teeth 	<ul style="list-style-type: none"> Secure grasping and tissue handling

Additional *EndoWrist* Instrument Options – 8 mm

	STANDARD/S, Si PNs	TARGETED APPLICATIONS	FEATURES	POTENTIAL BENEFITS
	Hot Shears[™] (Monopolar Curved Scissors) 400179/420179	<ul style="list-style-type: none"> Cutting, dissection & coagulation of tissues 	<ul style="list-style-type: none"> Combined scissors and monopolar cautery Tapered tip-profile 	<ul style="list-style-type: none"> Precise, clean tissue cutting Precise, localized hemostasis Blunt tissue dissection
	Large Needle Driver 400006/420006	<ul style="list-style-type: none"> Functional reconstruction of tissue excision defects 	<ul style="list-style-type: none"> Diamond pattern jaw profile 	<ul style="list-style-type: none"> Delivers secure needle control Provides firm grip & handling of multiple needle sizes



INTUITIVE SURGICAL®

Taking Surgery Beyond the Limits of the Human Hand.™

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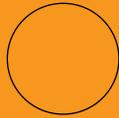
www.IntuitiveSurgical.com
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While clinical studies support the use of the *da Vinci* Surgical System as an effective tool for minimally invasive surgery, individual results may vary. Before performing any clinical procedure utilizing the System, physicians 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. All people depicted unless otherwise noted are models. © 2011 Intuitive Surgical. All rights reserved. *Intuitive*, *Intuitive Surgical*, *da Vinci*, *da Vinci S*, *da Vinci Si*, *Single-Site*, *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 871675 Rev D 08/11

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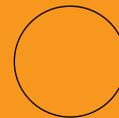


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