



Transoral robotic surgery (TORS)

For HPV-related
oropharyngeal
cancers



Head & Neck

Surgical Cancer Specialists
of SW Florida

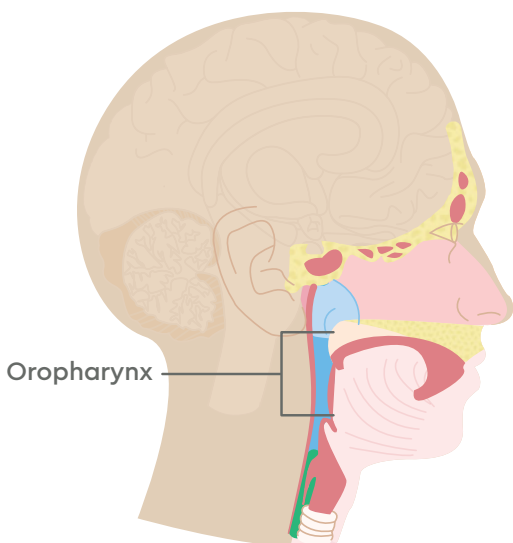
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What to expect

What are HPV-related oropharyngeal cancers?

The human papillomavirus (HPV) is the most common sexually transmitted disease in the United States.¹ While often associated with cervical cancer, HPV can also cause cancer to develop in the head and neck, typically transmitted through oral sex.

70% of oropharyngeal cancers (cancer that develops in the throat and includes the back of the tongue, the soft palate, tonsils and inner walls of the throat) are associated with HPV infections.¹



No one plans on getting
oropharyngeal cancer,
but a good plan can
help you beat it.



What is transoral surgery (TORS)?

TORS is a minimally invasive, robotic surgery that replaces the need to perform a mandibulotomy, a procedure that requires a surgeon to cut through and reconstruct the jaw to reach cancer in the back of the throat. Mandibulotomies have an extensive impact on quality of life, requiring a prolonged recovery time and negative impact on talking, swallowing and eating.

Instead, by performing TORS using the da Vinci® SP System, your surgeon can remove a tumor by navigating the robotic system through your mouth and down the back of the throat, without having to make an incision.

TORS is a safe and innovative surgical option, and was approved by the U.S. Food and Drug Administration (FDA) in 2009.



Additional benefits of TORS:

- Quicker recovery time
- Reduced impact on quality of life (less long-term swallowing, eating or speaking problems)
- Typically shorter hospitalization following the procedure (the average hospital stay is about two days, compared to one to two weeks required for more invasive procedures)
- Less risk of infection, need for blood transfusions
- Less likelihood of needing a tracheostomy (a hole made in the front of the neck and windpipe to aid with breathing during, and sometimes after, surgery)

Your TORS care team

At our center, you have a team dedicated to developing a personalized treatment plan, taking into account your needs, medical history, cancer type and goals of treatment.



Your TORS team includes:

- **Your otolaryngologist (head and neck surgeon):** Your surgeon specializes in the surgical management of cancerous and benign (non-cancerous) tumors of the head and neck, as well as reconstructive surgery. To perform TORS, he/she underwent extensive training in minimally invasive and robotic surgery. He/she will perform the TORS procedure to remove your cancer.
- **Your anesthesia team and certified registered nurse anesthetists (CRNAs):** These individuals evaluate, administer and monitor your anesthesia throughout your procedure. Ask your anesthesia team about pain management options for both during and after surgery.
- **Your operating room care team:** This team is led by your surgeon and comprised of your circulating nurses, your scrub technicians and other team members, all committed to providing your care while you are undergoing your operation.
- **Your supportive care team member(s):** You may also meet with additional healthcare professionals, such as nurse practitioners, physician assistants, dietitians, occupational therapists and/or speech therapists who can help you manage side effects and better understand your treatment plan.



Your pre-operative appointments

During your consultation appointment, your surgeon will discuss the TORS procedure and answer any questions you have. You will likely be asked to undergo a PET or CT scan to help determine the exact location of the tumor, as well as a biopsy if you have not received one already. Your surgeon may also require additional testing such as bloodwork, EKG or refer you to another doctor for a check-up, to make sure you are healthy enough to undergo surgery. You will also be advised on any dietary or medication restrictions you should adhere to before surgery.



Day of surgery

You will be provided comprehensive instructions from your care team about what to expect on the day of surgery. Typically, you should not eat or drink after midnight the day before surgery. You may shower and brush your teeth as normal, but not drink any water. Talk to your care team about any medicines or herbal supplements you typically take and if they should be taken on the day of surgery with a small sip of water. While you will likely remain overnight in the hospital to recover, you may want to consider having a caregiver onsite for the procedure.

In the pre-operative area, your surgeon and anesthesia team will meet with you before your surgery and answer any questions.

During surgery

Your care team will place an IV into your arm or hand to deliver fluids and medications. After you are taken into the operating room, the anesthesia team will put you into a deep sleep, so you don't feel any pain.

Once the TORS procedure begins, your surgeon will place a thin robotic instrument and camera down your throat. He/she will sit at a control panel nearby that shows a 3D and high-resolution image from the camera. Your surgeon will also control the robotic instruments from this same panel to remove the tumor. These instruments are incredibly flexible and precise, mimicking the movement of your surgeon's hands.

During the procedure, your surgeon may perform a neck dissection which removes lymph nodes and/or surrounding tissue that contain cancer. This is also to help ensure the cancer does not spread further. The number of lymph nodes removed will depend on how much the cancer has spread.

After surgery

After surgery, you will wake up in the recovery room. You will be monitored by a nurse who will watch your vitals (pulse rate, respiration rate, blood pressure, etc.) and help manage any pain that you might have. You may notice upon waking that your tongue feels swollen. You may also have a sore throat and hoarse voice. These symptoms are common and should get better within a few weeks.

If you had a neck dissection to remove lymph nodes, you may have a drain (a small tube) in your neck. This could cause your neck to feel swollen or stiff. Your care team will help you empty any fluid from the drains while you are in the hospital, and will be sure to educate you on how to empty the drain after you are discharged.

You will likely remain in the hospital for a day or two while you recover. During this time, you will have a swallow evaluation to make sure there are no concerns with your throat. You may have a feeding tube placed in your nose to provide nutrition while you recover. After a few days, you should be able to begin a clear liquid diet, advancing later into a soft diet.

Aftercare at home

Your clinical team will provide you with extensive instructions about how to care for yourself after leaving the hospital.

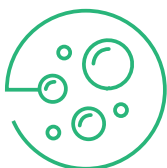
It is important that you:



Take your medications as prescribed by your doctor.



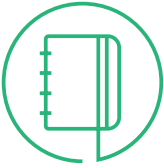
Avoid heavy lifting and strenuous activities and exercise until your care team advises you can begin again.



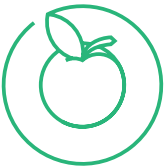
Unless your care team says otherwise, you should be able to bathe or shower as normal.



Avoid taking any over-the-counter pain medications, such as ibuprofen or aspirin, as these medications can thin the blood and cause bleeding. Your care team will discuss which pain medications are appropriate to take, as needed.



If you have a drain in your neck, be sure to follow your care team's instructions on how to empty the drain and care for any dressings. You will likely be asked to keep a drain diary and record how often and how much fluid was removed each time you care for the drain. Your care team will also provide instructions on how to change any dressings.



Follow the dietary instructions provided by your care team.

Your clinical team will also advise on when you can return to work and resume normal activities. All of this will depend upon the extensiveness of your surgery and your health status.



Dietary instructions provided by your care team, may include the following:

Clear liquid diet: This includes see-through liquids, such as pulp-free juices, sports drinks, sodas, tea, coffee, broth, Jell-O and popsicles. Avoid any red-colored drinks, Jell-O or popsicles to help avoid any confusion of whether there is bleeding or not.

Full liquid diet: This includes foods and fluids that are either liquid or turn into liquid at room temperature. This could include soups (strained), teas, juices, Jell-O, shakes or melted ice cream, pudding or popsicles. No solid foods should be eaten.

Soft diet: Also known as a "bland diet," this includes foods that are soft, mildly seasoned and low in fiber to aid with digestion. This could include beverages included in the clear liquid diet, bread or crackers (avoiding anything that is hard or has seeds/nuts), cooked or dry cereals, cooked noodles, soft fruits (bananas, baked and peeled apples or applesauce, canned fruits, etc.), chicken or fish that is tender, baked beans, tofu, peanut butter, soups, peeled and cooked vegetables, scrambled eggs, soft cheeses or yogurt, as examples.

When to call your surgeon

While some discomfort and difficulty swallowing after surgery is normal, call your surgeon if you have extreme difficulty swallowing or breathing, or if you experience bleeding beyond a few spots of blood that do not go away after rinsing your mouth.

You should also contact your surgeon if you have:

- A fever over 101°F
- Pain that is not relieved with your prescribed medication
- Any difficulty urinating
- Any signs of infection surrounding your drain site, if the tube falls out, if there is a change in fluid color or amount, or if you notice any changes on the skin around the drain
- Any new symptom you are concerned about or questions for your doctor

What to expect once surgery is complete

Typically, your surgeon will want to meet with you within one to two weeks after surgery to make sure you are healing well, discuss any new post-operative instructions and remove your drain if you have one. After this appointment, your relationship with your care team will continue. We are always available for you and can help manage any side effects you may experience, even after your surgical treatment is completed. In general, our care team will follow you for five years or more. Additionally, we will help coordinate referrals to any additional medical specialties as needed.



Contact us

Should you want more information about our treatment services, please visit us online: genesiscareus.com

1. https://www.cdc.gov/cancer/hpv/basic_info/hpv_oropharyngeal.htm#:~:text=This%20is%20called%20oropharyngeal%20cancer,HPV%20for%20cancer%20to%20develop.



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