Montgomery T-Tube (MTT)

A guide for patients and families

Read this booklet to learn about:

- Tracheal stenosis ................................................................. page 1
- Montgomery T-Tube (MTT) ................................................. page 1
- Before surgery ..................................................................... page 2
- After surgery ........................................................................ page 3
- Changes to expect after surgery .......................................... page 5
- Staying safe and comfortable at home ............................... page 7
- Taking care of your MTT at home ........................................ page 9
- Problems to watch for ........................................................ page 13
- Who to call .......................................................................... page 14
Read this part to learn:
  • what is tracheal stenosis
  • what is Montgomery T-Tube (MTT)
  • how to prepare

What is a tracheal stenosis?

Tracheal stenosis is a narrowing of your airway that makes it difficult for you to breathe. You are having surgery to open up your airway.

What is a Montgomery T-Tube (MTT)?

An MTT is a tube shaped like the letter T. It is made from a rubbery material called silicone. The MTT is used to stent (open up) your airway if you have tracheal stenosis.
What will happen before my surgery?

You will have an appointment in the pre-admission department. At this appointment:

- You may have some tests to prepare you for surgery. These may include:
  - blood tests
  - an ECG (electrocardiogram)
  - a chest x-ray
- You will meet with the pre-admission nurse. Your nurse will review your health history. If needed, you may also see other health professionals like:
  - an anesthetist (doctor who will give you medicine so you will sleep and stay comfortable during surgery)
  - a pharmacist
  - a speech pathologist
  - They will talk to you about how the surgery will affect your breathing, speaking and swallowing and help you manage these changes. They may show you pictures and videos or introduce you to someone who is living their life with an MTT.
  - a social worker
- You will meet the Head and Neck Nurse Coordinator (NC) who will talk to you more about your surgery. The NC may take you to the surgical unit where you will meet other members of the health care team.

How do I prepare for the surgery?

- **Don’t eat or drink anything (including chewing gum or candies) after midnight the night before your surgery.** Your stomach must be empty when you go for your surgery.
- Come to the hospital 2 hours before your surgery time. Check in at the Surgical Admission Unit (SAU). It’s on the 2nd floor, Munk Wing at the Toronto General Hospital.
- After you check in, we give you an intravenous line (IV). This is a small needle that we put in a vein in your arm. We use it if you need:
  - fluids
  - antibiotics (medicines that kill bacteria)
  - pain medicine
What happens after the surgery?

1. We take you to the Patient Anesthetic Care Unit (PACU) or recovery room.
2. When you are awake enough, and it's safe, we transfer you from the PACU to the Head and Neck, Plastics Surgical Unit (6 Munk Building).
3. Once you arrive on the surgical unit, we place you in the Step Down Unit. The Step Down Unit is a special area. We care for patients here who we need to check more closely and more often. A nurse is with you all the time.

What can I expect to have on my body?

You may have a suture that connects your chin to your chest. This keeps your head from falling back. The suture will be removed between 3 to 5 days after your surgery or when your doctor feels it is safe to do so.

You may have an incision (cut) at the bottom of your neck.

You will have an intravenous line (IV) in one of your hands. An IV is a special needle that is put into a vein in your arm or hand. It's attached to tubing and a bag hanging from a pole.

We use your IV to give you fluids and medicines during or after your surgery. We usually take the IV out when you are ready to go home.
How will I feel after the surgery?

It’s normal to feel some pain after surgery. To help control your pain, we may give you a Patient Controlled Analgesia (PCA) machine. You can push a button on this machine to get pain medicine when you need it. While you are taking pain medicine, you may feel drowsy or confused. We will give you more information about your PCA.

You may have a lot of swelling around your face and neck. This swelling goes down slowly during the 1st week after surgery. It continues to go down up to 6 weeks after surgery.

For a short time after your surgery, it might be hard for you to clear your saliva. To help you, we use a suction machine to suction (remove) saliva that builds up. Your nurse teaches you how to use the machine to suction yourself. Suctioning isn’t painful, but it’s sometimes uncomfortable because it can make you cough.

When can I move around?

We ask you to do some exercises when you wake up from surgery. These simple exercises help you recover. Your nurse will give you more instructions and a physiotherapist may help you if needed.

- **Deep breathing and coughing**
  Take deep breaths, and try to cough out. Your nurse helps you do this.

- **Foot Exercises**
  Wiggle your toes and move your feet back and forth. This helps the blood in your legs circulate (move around).

- **Walking**
  On the day after your surgery, your nurse helps you get out of bed. You may sit in a chair and/or walk. After 2 to 3 days, you will start to feel better. Taking some pain medicine before you walk can help.
What changes can I expect after my surgery?

Breathing
You will breathe through your mouth and nose while your MTT is capped.

Eating
You will start eating by mouth gradually. You will start with liquids, then move to pureed foods and then to solids. You may not be eating solid foods by the time you go home.

Your speech pathologist will continue to see you throughout your follow-up visits with your doctor. Your doctor or your speech pathologist will let you know when it’s safe for you to eat a regular meal.

Speaking
Your voice will change after surgery. You may have some hoarseness in your voice. Most patients tend to whisper when they talk. Your doctor will talk to you about any changes in your voice.

How long will I stay in the hospital?
How long you stay in the hospital depends on how well your pain is controlled, and how well your skin heals after surgery. We will also look at how well you can eat, breathe and take care of yourself. You could stay in hospital between 5 to 7 days. Your doctor may keep you in the hospital longer if needed.

What happens before I leave the hospital?

- We show you or a family member how to care for your MTT at home. This booklet also has the information you need.

- The Community Care Access Coordinator (CCAC) will arrange for a Home Care nurse to visit you at home every day for as long as you need. These visits will stop when you both agree the time is right. You don’t have to pay for this service.
Your CCAC nurse will give you supplies for MTT care before you go home. You may need to have a suction machine delivered to your home before you leave the hospital. Your CCAC coordinator will talk to you about delivery.

**Pain control and new medicines**

- We give you medicine to control your pain while you are in the hospital. By the time you leave, you should have very little pain. Before you leave, we give you a prescription for pain medicine. If it controls your pain, you are ready to leave the hospital.

  **If you have problems with your pain control after you leave the hospital, call your family doctor or your surgeon.**

- Before your discharge, we will give you prescriptions for pain medicine, stool softeners and any other new medicines you started while in hospital.

- You can start the medicines you were taking before your surgery unless your doctor changed them.

- If your doctor changed the amounts of the medicines you were taking before or wants you to start a new medicine, a pharmacist will talk to you before you go home.

**Eating and nutrition**

- Your doctor or speech pathologist will give you instructions about what foods to eat once you are at home. A dietitian will talk to you and your family to explain the instructions. **Follow these eating instructions until you come back for your follow-up appointment.**

- If your swallowing becomes worse or you are losing weight while you are at home, call your doctor’s office.
What can I do to stay safe and comfortable at home?

Bowel routine

- Your pain medicines can cause you to become constipated. Drinking lots of fluids and eating fruits and vegetables (high fibre foods) can help.
- If you need to, you can take the stool softeners that your doctor prescribed you.

Activities

- Don’t swim.
  Water will go into your lungs, and you could drown. Be careful around water (for example, when in a boat, fishing or by a pool).
- Don’t lift more than 10 pounds (about 5 kilograms).
  Lifting heavy objects can strain your neck. Your doctor will talk to you about when you can start lifting again.
- Don’t leave the house without supplies to care for your MTT.
  You never know when you may need your MTT supplies, even during short trips.
• **Cover your MTT when showering or washing your hair.**
  Use a hand-held shower head to control where the water goes. If you don’t have one, cover your MTT with a dry facecloth or tie a hand towel loosely around your neck. Aim the shower head at your lower chest.

• **Shop for food that is easy to prepare.**

• **Test how much you can move your neck before trying to drive.**
  If you can’t turn your neck comfortably, it’s not safe to drive.

• **Ask your friends and family to help you while you recover.**

• **Visit your doctor regularly.**

• **Continue to go out, see friends and enjoy life!**

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**What do I need to know about my MTT?**

Your MTT is a small airway, so you can develop mucous plugs easily. It is important for you to take good care of your MTT. Caring for your MTT will help to keep your airway open.

• Your MTT must be capped at all times, except when suctioning (cleaning). If you leave your MTT uncapped, there is a higher risk of mucous plugs forming.

• You should have a cool mist vaporizer in your home. It should be by your bedside while you sleep at night. This will help to keep your mucous moist and easier to remove when you clean it.
How do I care for my MTT when I’m at home?

At the beginning you will need to clean your MTT twice a day, then as needed. Your nurse will show you how to do this before you go home from the hospital.

To clean your MTT, follow these steps.

1. Collect your cleaning supplies.

You will get most of these supplies from Home Care. When they run out, you can buy them at a drug store or a medical supply store.

To clean your MTT will need:

- ☑ hydrogen peroxide
- ☑ normal saline (salt water)
- ☑ a few ear swabs (such as Q-tips®)
- ☑ 2 clean disposable cups
- ☑ gauze squares
- ☑ # 10 French suction catheters
- ☑ a suction machine
- ☑ a mirror
- ☑ petroleum jelly (such as Vaseline®)
- ☑ one 3 ml syringe without the needle

Put all of these supplies on a flat surface, like a table or countertop.

2. Prepare your cleaning supplies.

- Wash your hands.
- Make sure your mirror is set up so you can clearly see your neck and MTT.
- Pour your cleaning solutions (hydrogen peroxide and normal saline) into the clean cups.
- Draw up the normal saline into the 3 ml syringe.
3. Clean the outside of your MTT

- Dip Q-tips in the hydrogen peroxide and use them to clean the outer part of the MTT. Also use them to clean the skin around the tube. Do this until all the crusts and secretions (leaking fluids) have been loosened. You may use gauze squares to clean the skin under you MTT.
- Repeat with the normal saline.
- When it is all dry, apply a thin layer of Vaseline to the skin next to your tube. This will help protect your skin as a protective barrier.
- Call your doctor if the skin around your MTT:
  - is red
  - is swollen
  - smells bad
  - has pus (a yellowish liquid) oozing out

4. Clean the inside of your MTT

- Take the cap off your MTT.
- As you breathe in, squirt salt water from your refilled syringe into your opened tube. This helps to loosen your mucous and make it easier to cough up and remove by suctioning.
- Cough and clear as much of your mucous as possible.
- Using a #10 French suction catheter attached to the suction machine and your suction machine, clean the inside of your MTT both up and down:
  - Turn on the suction machine.
  - **Suction up** by gently bending the outside part of the MTT down.
  - Put the suction catheter 1 to 2 inches into the MTT.
  - Put your thumb over the opening of the catheter to provide suction.
  - Keep your thumb on the hole as you suction and then remove the catheter. You should not suction longer than 10 seconds.
  - Rinse your catheter in salt water.
  - **Suction down** by gently bending the outside part of the MTT up.

Repeat the steps above.

- Once you finish cleaning, turn off suction machine.
- Put the cap back on your MTT.

*Important: Close or recap the MTT after cleaning it*
**Upward Suctioning**

The suction catheter is directed upward by bending the external part of the MTT down.

**Downward Suctioning**

The suction catheter is directed downward by bending the external part of the MTT up.
If you have trouble breathing, try clearing your MTT by squirting salt water and suctioning.

If your breathing doesn’t go back to normal, keep your MTT uncapped and call your doctor or go to the nearest emergency department.

How long will I have the MTT?

It’s normal to have your MTT for about 4 to 6 weeks. When it is ready to be removed:

- You will return to the hospital and stay for about 1 to 2 days.
- Your surgeon will check your airway in the operating room. If you are properly healed, they will remove the MTT and replace it with another tube called a tracheostomy tube. This will take about 1 hour and will be done while you are asleep. This tracheostomy tube will stay in overnight to ensure that your airway stays opened.
- The tracheostomy tube will be removed the day after it was put in. It will be removed while you are awake at your bed side. Removing it is quick and painless. You will have a small dressing to cover the tracheostomy site.
- You will then be discharged home.
- A home care nurse will change this dressing every day until it heals.
When should I get medical help?

Call the doctor or nurse coordinator if you have any of these symptoms:

- fever (a temperature **higher** than 38.5 °C or 98.6 °F)
- trouble breathing
- coughing up yellow or green mucus, or mucus that smells bad
- coughing up fresh red blood
- redness or increased pain at your incision site
- bleeding or any other leaking from your incision site
Who can I call if I have any questions?

Your clinical nurse coordinator will answer any questions or concerns you have during the first 2 weeks you are home.

**Clinical Nurse Coordinator**  ☎ 416 340 4665

You can also call your doctor or speech language pathologist if you have any questions or concerns.

Dr. D. Brown  ☎ 416 946 2147
Dr. D. Chepeha  ☎ 416 946 4729
Dr. J. DeAlmeida  ☎ 416 946 2182
Dr. R. Gilbert  ☎ 416 946 2822
Dr. D. Goldstein  ☎ 416 946 2147
Dr. P. Gullane  ☎ 416 946 2143
Dr. J. Irish  ☎ 416 946 2149

Speech language pathologists

Elana Aziza  ☎ 416 340 4800, extension 4439
Lisa Durkin  ☎ 416 340 4800, extension 4405
Andrea Gomes  ☎ 416 340 4800, extension 8756