Total Laryngectomy

Information for patients and families

Read this book to learn:

- what a laryngectomy is and how to prepare
- what you can expect
- how to care for yourself when you get home
- who to contact if you have any questions
Being diagnosed with larynx cancer and going through surgery can be very stressful. Knowing what to expect and how to manage each step can help you and your family cope with larynx cancer and its treatment.

**Table of contents**

- **Part A**
  - Preparing for surgery
  - Page 3
- **Part B**
  - What to expect after surgery
  - Page 7
- **Part C**
  - How to care for yourself when you get home
  - Page 15
- **Part D**
  - Important phone numbers
  - Page 27
Preparing for surgery

Read this part to learn:

- what a laryngectomy is
- what will happen before surgery
- how to prepare

What is your larynx?

Your larynx is your voice box. This is a very small but important part of your body. It affects how you breathe, speak and swallow.

The larynx sits at the top of your windpipe. It opens and closes like a valve. Your larynx is usually open, which allows you to breathe air through your nose and mouth into your lungs.

When you swallow, your larynx closes very tightly. It prevents food and liquid from entering your lungs, like a cork. When you speak, part of your larynx (your vocal cords) closes gently, and your voice comes out.

What is larynx cancer?

The kind of cancer in your larynx is usually squamous cell carcinoma. There are different ways to treat larynx cancer. These include:

- radiation
- chemotherapy
- surgery

Sometimes, these treatments are combined. This book will help you understand surgery that removes the larynx, called a laryngectomy.
**What is a laryngectomy?**

A laryngectomy removes part of your larynx. A total laryngectomy removes your whole larynx. Once your larynx is removed, there is nothing to keep food, liquid, or saliva from going into your lungs. To keep you safe, your surgeon will move your windpipe (trachea) to the outside of your neck. This creates a permanent stoma.

**What is a stoma?**

Your trachea is now attached to the outside of your neck and forms a small permanent hole. This hole is called a stoma. Sometimes, if the stoma is small, you may also have a tube in it. This is called a laryngectomy tube, and it helps you get the air you need.

You will have either a Shiley® laryngectomy tube or a Provox LaryTube™. We will talk to you about which tube is best for you.

You breathe, cough and sneeze through your stoma. Unless your doctor or Speech Language Pathologist wants you to eat different food, continue to eat as you did before your surgery. Your surgeon separated the tubes in your body that take in food and air. This will protect you from choking when you eat or drink.
What will happen before 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 preadmission nurse. Your nurse will review your health history. If needed, you may also see other health care professionals like:
  - an anesthetist (doctor who will give you medicine so you will sleep and stay comfortable during surgery)
  - a pharmacist
  - a speech language pathologist
  - a social worker

- 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 videotapes or introduce you to someone who is living their life after a laryngectomy.

- You will meet the Head and Neck Nurse Coordinator (NC) who will talk to you more about the 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 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 Toronto General Hospital.

- After you check in, we give you an intravenous (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)
  - or pain medicine
Read this part to learn:

☑ what tubes you may have after surgery
☑ what changes to expect
☑ what happens before you leave the hospital

What can I expect after surgery?

1. We take you to the Patient Anesthetic Care Unit (PACU) or recovery room.

2. When you are awake enough, and it is 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.

You are attached to some or all of these tubes:
<table>
<thead>
<tr>
<th>Tube</th>
<th>What it's for</th>
</tr>
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<tbody>
<tr>
<td>Tracheostomy mask</td>
<td>A <strong>tracheostomy mask</strong> is put close to your laryngectomy tube to give you oxygen and keep your throat moist.</td>
</tr>
<tr>
<td>NG tube</td>
<td>The <strong>NG-tube</strong> (also called feeding tube) passes through your nose and into your stomach. It’s used to give you nutrients and medicine. The NG tube stays in while your throat is healing. Once you can use your mouth to eat, we take the NG tube out. If you are unable to eat by mouth, you may need to go home with a different feeding tube. This tube is called a G-tube. It goes directly to your stomach. Your doctor will talk to you about this before you go home.</td>
</tr>
<tr>
<td>Tube</td>
<td>What it's for</td>
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<tr>
<td>Intravenous (IV)</td>
<td>An <strong>intravenous (IV)</strong> 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.</td>
</tr>
<tr>
<td>Surgical drain</td>
<td>The <strong>surgical drain</strong> (also called hemovac or JP) is a drain that we put close to your cuts. During surgery, your doctor may put the drain into your neck, arm, leg, or back. The drain removes any extra fluid that builds up in your cuts. We usually take it out 2 to 4 days after your surgery.</td>
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# Tube and What it’s for

<table>
<thead>
<tr>
<th>Tube</th>
<th>What it’s for</th>
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</thead>
<tbody>
<tr>
<td>Urinary catheter</td>
<td>A urinary catheter is a plastic tube placed in your bladder during surgery. It drains urine from your bladder into a small bag. It's usually removed the day after your surgery.</td>
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</table>

## 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 mucus from your lungs. To help you, we use a suction machine to suction (remove) mucus 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 necessary.

- **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. It may hurt to walk the first few times after surgery if your doctor used a skin graft from your thigh.

After 2 to 3 days, you will start to feel better. Taking some pain medicine before you walk will help.

What changes can I expect after my surgery?
Expect changes to the way you breathe, eat and speak. You will also need to get used to keeping your stoma clean and dry.

**Breathing**
You now breathe through the stoma in your neck, not your nose. Your nose used to warm and moisturize the air and filter small pieces of dust. Now the air you breathe will be cooler and drier. You will probably need to cough more often. Your speech language pathologist will work with you to help you breathe better.

**Eating**
Your throat needs to heal before you can begin to eat by mouth. While your throat is healing, your doctor will put in a temporary feeding tube. They do this while you are asleep during your surgery.
Your doctor will tell you and your speech language pathologist when it is safe for you to begin eating by mouth. This is usually about 10 to 12 days after surgery. Sometimes your doctor will ask the speech pathologist to take an x-ray of your swallowing before you start eating or drinking.

We start you eating by mouth gradually. We start with liquids, then move to pureed foods and then to solids. You may not be eating solids yet by the time you go home. Your speech pathologist will continue to see you throughout your follow up visits with your doctor.

Your sense of taste and smell will change. Since you don’t breathe through your nose, not being able to smell certain foods can change the taste. Also, your doctor may now want you to eat foods that are easy to swallow and digest. You may need to prepare your food in a special way when you go home (for example, pureed, finely chopped or minced).

Your doctor or your speech pathologist will let you know when it’s safe for you to eat a regular meal.

**Speaking**

Without your voice box, you won’t be able to speak the way you did before the surgery. Your speech language pathologist will work with you to help you to communicate. They will help and guide you for the rest of your life.

There are many ways to communicate after laryngectomy surgery. Some ways are very simple, but they work! They might include nodding your head, using your hands and face or writing. This is usually how you will communicate in the first few weeks after surgery.

There are other ways of communicating in the long term. These include implanted speaking valves (called a voice prosthesis) or electronic devices. Your speech pathologist will review all of the options with you and help you choose what is best for you.
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 tissues heal after surgery. We will also look at how well you can eat, breathe and take care of yourself. You could stay in the hospital between 10 to 14 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 laryngectomy at home. This book 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 laryngectomy 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 may start taking thyroid medicines. Your doctor will talk to you more about this.
- You can restart 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 come speak to you before you go home.
Eating and nutrition

- Your doctor or speech pathologist will give you detailed 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 you find your swallowing becomes worse or you are losing weight while you are at home, call your doctor’s office.

Going home with a feeding tube

If you need to go home with your feeding tube, we teach you how to:

- feed yourself
- give yourself medicines
- care for it

When you are home, go to your nearest emergency room if your tube moves out of place or falls out.

Call your doctor’s office if:

- you have watery diarrhea
- you have a fever higher than 38° C or 100° F
- your tube is blocked
- you have signs of infection around your feeding tube site. Signs of infection include swelling, redness, pain, and pus (yellowish liquid coming out).

Your Community Care Access Centre (CCAC) delivers your feeding supplies to your home.
How to care for your laryngectomy

You need to clear mucus from your windpipe to help you breathe easier. We have talked to you and your family about how to do this. You should do laryngectomy care about 3 to 4 times a day or more often if you have lots of mucus. There are different ways you can do this:

**Squirt:** Squirting saline into your stoma many times a day will help you cough up mucus.

**Suction:** If you can’t clear mucus from your lungs by squirting and coughing, you must use a suction machine. A nurse will visit you every day until you feel comfortable doing this on your own. They will make sure you are clearing your mucus properly.
**Supplies:** Home Care will give you these supplies when you are ready to go home. They will also provide them while you are in their care. After that, you can buy more from any medical or surgical supply store:

- hydrogen peroxide
- normal saline (salt water)
- Polysporin® or Vaseline®
- cotton swabs (Q-Tips®)
- a small brush
- drain gauze
- flashlight (to see your stoma in poor light)
- gauze squares
- humidifier
- suction machine
- suction catheters
- a syringe for normal saline squirts
- mirror
- paper cups

We will tell you if you need suction equipment. If you have a Provox LaryTube™, we will give you a starting supply kit.

**Follow these steps to care for your laryngectomy:**

1. Wash your hands.
2. Collect your supplies.
3. Lay your supplies on a counter or other flat surface near a well-lit mirror.

**For squirt:**

4. Stand in front of the mirror and tilt your head back.
5. As you breathe in, squirt saline solution into your stoma.
6. As you cough, try to clear the mucus from your lungs.
If this doesn’t clear your mucus, use suction.

For suction:

1. Turn on the suction machine. Check that it is working.
2. Connect the suction catheter to the suction machine.
3. Put the suction catheter into your stoma about 10 centimeters. Don’t cover the opening while you are putting it in.
4. Put your thumb on the opening of the suction catheter. This creates suction.
5. Keep your thumb on the opening as long as you are suctioning. **Don’t leave the suction catheter in your stoma longer than 8 to 10 seconds.** Leaving it in longer will cause breathing problems.
6. Turn the suction catheter from side to side when you take it out of your stoma.
7. Rinse the catheter in saline before using it again.

How do I clean my stoma?

It’s important to keep your stoma clean and dry to breathe properly and prevent infection. Follow these steps about 3 to 4 times a day.

1. If there is a lot of crusting around your stoma, dip a cotton swab into hydrogen peroxide. Use it to gently clean the skin around your stoma. **Don’t put hydrogen peroxide inside your stoma.**
2. Dip another cotton swab in normal saline and clean the skin around your stoma again. This time, you are removing the hydrogen peroxide. It can irritate your skin if it’s not removed.
3. Use your finger to put Polysporin® or Vaseline® on the skin around your stoma. This will keep your skin from becoming red and sore.

If there isn’t a lot of crusting on your stoma, you only need to use the normal saline. You may have to clean your stoma more often if you have a lot of mucus. Over time, you may not have to clean it as often.
How do I care for my laryngectomy tube?

Knowing the parts of your tube and how they fit together will help you care for it properly. Your laryngectomy tube will either be a hard, white Shiley® tube or a soft, clear Provox LaryTube™

**Shiley® tube parts:**

**Outer cannula:** This is the outer part of the tube. It sits in your windpipe.

![](image1)

**Inner cannula:** This is the inner part of the tube. It fits inside the outer cannula. You take the inner cannula out to clean it and then put it back in.

![](image2)
**Obdurator:** This has a smooth end. It helps to glide the outer cannula through your stoma and into your windpipe. You may not always need to use it.

**Faceplate:** This is the flat part of the laryngectomy tube. It sits on your neck and holds your tube in place.

**Laryngectomy Velcro tie:** This holds the faceplate secure to keep your tube in place.
Removing and cleaning your Shiley® tube:

1. Sit in front of the mirror. Remove the Velcro tie around your neck.
2. Take a deep breath and remove the tube while you breathe out. Keep breathing through your stoma.
3. Put the removed tube into a clean paper cup that has hydrogen peroxide in it. Your nurse will show you how to do this.
4. Then take the inner cannula and clean it with the brush and hydrogen peroxide.
5. Rinse the inner cannula with normal saline or under cold running tap water. Don’t use hot water because it will make mucous stick to the tube.
6. Shake the inner cannula to remove saline or water from the inside. Don’t worry if it isn’t completely dry.
7. Repeat these steps to clean the outer cannula and faceplate.

Provox LaryTube™ parts:

Provox LaryTube™: It sits in your windpipe.
Provox LaryTube™ with Velcro tie: This holds your tube in place.

Heat Moisture Exchanger (HME) cassette: This sits in the LaryTube™ and provides warmth and moisture to your windpipe.

Provox LaryTube™ with Velcro tie and HME
Removing and cleaning your Provox LaryTube™:

1. Sit in front of the mirror. Remove the Velcro tie around your neck.

2. Take a deep breath and remove the tube while you breathe out. Keep breathing through your stoma.

3. Scrub the tube well with a tube brush and hot soapy water. Don't use detergents or oily soaps.

4. Rinse it with a lot of hot water. Then rinse it again with distilled water.

5. At home, you can disinfect the tube (remove any germs) by leaving it in boiling water for about 5 to 10 minutes.

6. Let the tube cool before you put it back in.

Changing the Velcro tube tie:

After you clean the tube, change the Velcro tie that keeps the faceplate in place.

1. Use a ready-made Velcro tie.

2. Put 1 end of the tie through one of the holes on the faceplate. Attach the Velcro end to the material on the side.

3. Use the instructions below to put the tube into your stoma.

4. Wrap the tie around your neck.

5. Put the other end of the tie through the other hole on your faceplate.

6. Attach the Velcro end to the material

7. Make sure it's not too tight. Keep a 1-finger space between your neck and the tie.
Putting the laryngectomy tube back in:

When you have cleaned the tube and changed the Velcro tie, put the tube back into your stoma.

If you have a Shiley® tube:

1. Make sure you have removed the inner cannula from the outer cannula.
2. Place the obturator inside the outer cannula.
3. Take a deep breath in, hold it, and put the tube into your stoma.
4. Remove the obturator right away and breathe out.
5. Wrap the Velcro tie around your neck until 1 end attaches to the Velcro (sticky end). Keep a 1-finger space between your neck and the Velcro tie.
6. Put the inner cannula into the outer cannula and turn the inner cannula to lock it in place.
7. Put gauze under the faceplate to protect your skin from becoming red and sore. If your skin still becomes red and sore, call your doctor.

If you have a Provox LaryTube™:

1. Lightly moisten the tube with water or a water soluble lubricant (not Vaseline®).
2. Put the tube into your stoma. You can pinch the end if you need to help it go in.
3. Attach the Velcro tie to the tube. Keep a 1-finger space between your neck and the Velcro tie.
4. Put the HME cassette into the tube holder.

How can I prevent mucus build up?

Breathing through your stoma can lead to the lining of your breathing tubes to become irritated. Mucus can also build up in your breathing tube.

Sometimes, mucus can build up and plug your tube. Your tube may be plugged if:

- you’re having a hard time breathing when resting
- you hear a whistling sound while you are breathing in
- you feel you're not getting enough air
To prevent mucus build up:

☑ Drink at least 6 to 8 glasses of water a day.

☑ Use a humidifier or vaporizer, especially in your bedroom at night.

☑ If your tube is plugged with mucus, squirt your stoma with saline to try to clear it. If you are wearing your tube, take out the inner cannula and clean it. If you are not wearing the tube, use the suction catheter.

The kind of mucus you see can tell you what you need to do:

- If your mucus is thick, this may be a sign that you need to drink more fluids or more moisture in your air.
- If your mucus is yellow or green, this may be a sign of an infection.
- If your mucus is bloody or red-streaked, this may be a sign that you need more moisture in your air or you’ve done too much suctioning.

What can I do to stay safe and comfortable at home?

Be prepared for emergencies. Ask a friend or family member to record a message you can use over your phone if you need to call 911. The message should say:

This is not a false alarm. My name is ______________. I can’t talk. It’s an emergency, and I need help. My address is ______________. Please send help.

If you are unable to record a message, please see your doctor about other ways you can let people know there is an emergency.

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.
Follow these instructions to stay safe and comfortable at home:

☑️ **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 laryngectomy.** You never know when you may need them, even during short trips.

☑️ Cover your stoma when showering or washing your hair. Use a hand-held showerhead to control where the water spray goes. If you don’t have one, cover your stoma with a dry facecloth or tie a hand towel loosely around your neck, and aim the showerhead at your lower chest.

   Talk to your Speech Pathologist about new products that are available to protect your stoma while showering.

☑️ Cover your stoma with something, like a scarf, when you go outside. This will stop dirt and dust from getting into your windpipe. You can also talk to your Speech Pathologist about different covers that are available.

☑️ Keep away from gases, fumes, powders and dust (for example, hairspray and room deodorizers). They irritate your windpipe and lungs.

☑️ Avoid very hot or very cold weather or rooms. These temperatures will irritate your windpipe and lungs.

☑️ Keep a humidifier or vaporizer in your home. This is important in the winter months when the air is dryer. Place them at your bedside at night to keep your windpipe moist so you’ll sleep better.

☑️ It’s not uncommon to have trouble with bowel movements after a laryngectomy. Cover your stoma when you push to have a bowel movement. This will help you push and keep you from becoming constipated.

☑️ Drink plenty of fluids such as water, juice, tea and ginger ale. Avoid drinking coffee or colas because they have caffeine, which can dehydrate you.
☑ 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 unsafe 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.

**What problems should I look out for?**

<table>
<thead>
<tr>
<th>Call your doctor right away or go to your nearest emergency department if:</th>
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<tbody>
<tr>
<td>• you are having mucous plugs at least 2 times a day</td>
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<tr>
<td>• your mucus is often coloured with blood for more than 3 days</td>
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<tr>
<td>• your mucus is thick, yellowish or green and smells bad</td>
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<tr>
<td>• you have pain in your chest</td>
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<tr>
<td>• you can’t breathe well, even after cleaning your laryngectomy tube</td>
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<tr>
<td>• you have a temperature <strong>over</strong> 38.5 °C or 101 °F for more than a day</td>
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<tr>
<td>• your stoma becomes small or you can’t put in your laryngectomy tube</td>
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<tr>
<td>• you have trouble swallowing or eating</td>
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<tr>
<td>• you have yellow or green pus coming from the edges of your stoma</td>
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<tr>
<td>• your pain gets worse and medicine doesn’t take it away</td>
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<tr>
<td>• you have tingling in your finger tips and numbness around your mouth</td>
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<td>• you feel more tired than usual</td>
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</table>
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 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  416 340 4767
Dr. P. Gullane  416 946 2143
Dr. J. Irish  416 946 2149

Speech Pathologists:
Elana Aziza  416 340 4800, extension 4439
Lisa Durkin  416 340 4800, extension 8899
Andrea Gomes  416 340 4800, extension 8756