



JUNE 2020

VOICE SURGERY PROGRAM

INFORMATION BOOKLET

PART A

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PART A

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1

GENERAL INTRODUCTION

Thank you for choosing the Complexe chirurgical CMC for your surgical experience.

This booklet has been designed to support you from the beginning to the end of your surgical experience. It is divided into three parts:

PART A. This part provides you with information about your surgical procedure including its risks and possible complications.

PART B. This part will be sent to you attached to the email confirming the date of your surgery; it will give you information about your surgical procedure and how to prepare for it.

PART C. This section contains many tips on the need for speech therapy, voice hygiene, vocalization, and pain relief. These recommendations will help you recover faster and make your convalescence easier.

This booklet contains essential information for your preoperative care, your surgery, and your postoperative care. Please bring it with you on the day of your surgery.

The GRS Montréal team is always available to answer any questions and any additional information requests from you or from any other healthcare professionals involved in your surgical process. All our contact information can be found further along in this booklet.

1.1 COMPLEXE CHIRURGICAL CMC

THE COMPLEXE CHIRURGICAL CMC COMPRISES THREE ENTITIES :

- GRS Montréal
- Centre Métropolitain de Chirurgie
- Maison de convalescence Asclépiade

The Complexe chirurgical CMC includes more than 110 employees who are spread across its three entities. The team is composed of Dr. Pierre Brassard, Dr. Maud Bélanger, Dr. Alex Laungani, Dr. Chen Lee and Dr. Valérie Julie Brousseau, as well as their authorized representatives and delegates, their administrative staff, their healthcare staff and their attendants. In addition, the Complexe chirurgical CMC team also includes independent doctors and healthcare professionals who provide medical care and other types of care and health treatments within the Centre Métropolitain de Chirurgie (CMC) or in collaboration with the surgical team.

GRS MONTRÉAL

GRS Montréal is composed of three teams:

- **Administrative services**, which oversee the progress of your personal file and of the reception of the documents until the day of your surgery;
- **Preoperative clinical nurses**, who assess your medical file along with the surgeon and/or the anesthesiologist;
- **Postoperative clinical nurses**, who give postoperative care and answer all questions following your surgery and your return home.

GRS Montréal also offers coordination services for your stay. Contact us to find out about your eligibility for the various options offered.

CENTRE MÉTROPOLITAIN DE CHIRURGIE

The Centre Métropolitain de Chirurgie (CMC), accredited with Exemplary Standing by Accreditation Canada, is the only private hospital centre in Quebec. All surgeries are performed at the CMC, which includes four operating rooms, one day surgery unit and one hospitalization unit. Its priority is ensuring a high standard of healthcare and surgical services while meeting the highest standards of continuous health and safety services.

MAISON DE CONVALESCENCE ASCLÉPIADE

The Maison de convalescence Asclépiade is a postsurgical recovery centre for patients who underwent genital surgery. This warm and nurturing environment helps our patients to focus on their postoperative care and recovery. Our patients are accompanied by competent staff from whom they learn how to perform their postoperative care and are taught the self-care procedures needed for their return home.

1.2 WHAT IS ACCREDITATION CANADA ?

Accreditation Canada is a not-for-profit organization that is dedicated to working with patients, policy makers and the public to improve the quality of health and social services for all.

We work to bring the best of health care from around the world and share it with you. We work closely with health and social services organizations in Canada and abroad to develop a sustainable culture of improvement that betters safety and efficiency, working to save and improve lives. From the standards we use to the frontline assessments we conduct and everything in between, patients and families are full partners in what we do.

Source: <https://accreditation.ca/intl-en/about/>



1.3 PHONE RESOURCES

BEFORE AND DURING YOUR VISIT TO THE COMPLEXE CHIRURGICAL CMC

GENERAL INFORMATION	514 288-2097
ADMISSION OR CHANGE OF HEALTH STATUS THE DAY BEFORE SURGERY	514 332-7091 POSTE 232
HOLIDAY INN LAVAL	1 888 333-3140 (TOLL-FREE)

DURING YOUR RECOVERY AT HOME

You may reach the Maison de convalescence Asclépiade for any question about postoperative care or if your family doctor has any questions about your surgical procedure. Please note that there is a 24 to 48-hour response delay. For an emergency, dial 911 or go to the Emergency Room of the hospital nearest you.

LA MAISON DE CONVALESCENCE ASCLÉPIADE	514 333-1572
.....	ASCLEPIADE@CMCMONTREAL.COM
INFO-SANTÉ QUÉBEC	811
EMERGENCY SERVICES IN YOUR AREA - CANADA	911
YOUR SPEECH THERAPIST
YOUR FAMILY DOCTOR
YOUR PHARMACIST
COMMUNITY HEALTH SERVICES CENTRE IN YOUR REGION (QUEBEC: CLSC)

COMMUNITY SERVICES

ACTION SANTÉ TRAVESTI(E)S ET TRANSSEXUEL(LE)S DU QUÉBEC (ASTT(E)Q)	WWW.ASTTEQ.ORG
AIDE AUX TRANS DU QC	WWW.ATQ1980.ORG
HELP-LINE AND 24H INTERVENTION	ECOUTE@ATQ1980.ORG
.....	TOLL-FREE : 855 909-9038 #1
FONDATION ÉMERGENCE	WWW.FONDATIONEMERGENCE.ORG
COALITION DES FAMILLES LGBT	WWW.FAMILLELGBT.ORG

1.4 DISCLAIMER

The information contained in this document must not be considered as medical advice. It is not a substitute for a consultation with a doctor, nurse, or other healthcare professional. If you have any questions about your personal medical situation, please consult your healthcare professional.

2 OUR VOICE PROGRAM

VOICE: MORE THAN JUST AN ORGAN

The voice is defined much more than by its high or low frequency. Voices, which we could describe as feminine or masculine, share a wide range of frequencies. Rhythm, flexibility, intonation, breathing and emotion all contribute equally to the identification of gender through voice and are critical elements of the transition.

The goal of our program is not to “give” you a voice, but to provide you with all the tools you need to discover your own voice. This is a long process and will require training and the development of new vocal habits.

The goal of our program is to help you make your voice match your identity as much as possible.

FACTORS THAT INFLUENCE RESULTS

There are many factors that can influence the outcomes of the voice program, among others:

- a) Anatomy: height, weight, posture, breathing capacity;
- b) present and past lifestyle habits: smoking, vaping, alcohol, drugs;
- c) vocal habits: duration and manner of voice use, singing, previous voice problems, knowledge of music or vocal techniques;
- d) present or past health problems: thyroid, hormonal stability, diabetes, acid reflux, asthma, environmental allergies, cough, hearing problems, anxiety, depression, laryngeal trauma, cervical trauma;
- e) surgical history: cervical, vocal cord, lung, chest surgery; and
- f) speech therapy adequately done before and after surgery.

It is important for you to know that the final outcome of your voice is more than 50% dependent on the results of the speech therapy you received before and after surgery. Therefore all our patients must undergo an evaluation with our specialized speech therapist in order to be admitted to the voice surgery program.

VOICE SURGERY

Voice surgery is a surgical procedure in which the proportions of the vocal cords are altered to increase their average frequency of vibration.

Three approaches are possible:

- A. reducing the mass of the vocal cords - polypectomy - intra laryngeal route
- B. reducing the length of vocal cords - glottoplasty - intra laryngeal route
- C. increase vocal cord tension - cricothyroid approximation - externally

A. POLYPECTOMY

Polypectomy is an endoscopic procedure performed in people with a significant smoking history. The vocal cords must not have been exposed to smoke (tobacco, vaping, drugs, etc.) for at least three months and must also not be exposed to smoke afterwards. Over time, the use of tobacco or any other smoke-causing substance - including vaping - causes an accumulation of inflammatory tissue on the vocal cords and results in a lower, rougher voice.

Once the voice box is exposed by endoscopy, an incision is made on the upper surface of the vocal cord, taking care not to touch the vibratory margin. Suction is then used to remove the accumulation of inflammatory deposits lodged under the surface of the vocal cord.

To avoid complications, only one vocal cord is treated at a time. Therefore, this procedure requires two surgeries under general anesthesia. To allow for optimal healing and results, a minimum of three months between the two surgeries is essential. There is no skin incision, but healing of the voice box may take 6 to 12 months. Similarly, a period of at least 12 months will be required to relearn how to use your vocal cords optimally.

B. GLOTTOPLASTY

Glottoplasty is an endoscopic procedure performed in people with a large larynx, in people who do not need to use their voice to sing and who have good pulmonary function. The vocal cords must be in good condition, with no previous surgery.

Once the vocal box is exposed by endoscopy, an incision is made on the anterior vibratory surface of both vocal cords, taking care not to touch the posterior two-thirds of the vocal cords. Two to three stitches are then made to join the vocal cords, causing a reduction in the length of the vocal cord vibration. There is no skin incision; however, healing of the vocal box can take 6 to 12 months. A period of at least 12 months will also be necessary to relearn how to use your vocal cords optimally.

Because this surgery significantly reduces the diameter of your airway, precautions are necessary in case of emergency or subsequent intubation. We will give you a prescription with the relevant details. It will always be important to carry this information with you - for the rest of your life. We recommend that you get a medical bracelet with this information.

C. CRICOTHYROID APPROXIMATION

Cricothyroid approximation is an external surgery performed on people with a normal or small larynx, those who need to use their voice to sing, or those who have had cervical spine or vocal cord surgery. We favor this technique in patients over 40, those with a history of smoking, and those with a deep voice at primary assessment. The cricothyroid approximation lengthens and tightens the vocal cords by moving them towards the back of the vocal box. This procedure raises the frequency of the voice by increasing the tension of the vocal cords.

A skin incision is made in the neck below the Adam's apple and the vocal box cartilage is exposed. Stitches are used to fix the cartilage and tighten the vocal cords. The muscles are put back in place and the skin is closed with dissolving stitches. Healing of the incision can take 6 to 12 months. Also, a period of at least 12 months will be necessary to learn how to use your vocal cords optimally.

BODY MASS INDEX

A high body mass index (BMI) may have significant consequences on your health and your quality of life. If you suffer from severe obesity (BMI ≥ 35), increased monitoring will be required at all stages of your surgical procedure. In patients with a high BMI, there is a decrease in healing potential as well as in satisfaction with surgical results. Additionally, a BMI over 35 increases the risk of surgical complications. If this is your case, additional test results, like sleep apnea assessment, will need to be done by your treating physician before your surgery to ensure a safe surgical procedure. If your doctor recommends the use of a CPAP following the apnea test, you will have to use it continuously every night for a period of 4 to 8 weeks before your surgery.

For medical reasons, if your BMI is 40 or over, you will not be operated.

Your participation is essential to the overall success of your surgery.

INFORMED CONSENT

The decision to undergo surgery must be made in an informed manner and after obtaining all the necessary information and all answers to your questions. Complications may occur during the procedure, but also in the following weeks. Certain complications are common to all surgical procedures and others are more specific to voice surgery.

In Section 3 of this booklet, you will find the "Risks and Complications" section which provides a partial, but precise list of complications that may occur during or after a surgical procedure.

THE SURGERY

AVERAGE DURATION OF THE PROCEDURE	HOSPITALIZATION AT CMC	ANESTHESIA	RECOVERY AND SICK LEAVE	RESUMPTION OF PHYSICAL ACTIVITIES AND SPORTS
1 h to 1 h 30	Over night	General	4 weeks or depending on the nature of your work	6 to 8 weeks

YOU MUST BE ACCOMPANIED AT THE TIME OF YOUR DISCHARGE FROM OUR FACILITIES.

SILENCE

Following your surgery, you will be required to remain silent for a period of **10 days**. This period of silence is essential to allow healing to take place and to optimize the results.

Keeping silent means: do not whisper, do not moan, do not murmur, do not clear your throat, do not cough, do not sneeze loudly (do it in silence), and do not spit. The goal is to allow your vocal cords to rest completely.

For **one year** following surgery, we recommend that you avoid shouting, sneezing loudly, coughing, spitting, or clearing your throat.

SPEECH THERAPY

Following your surgery and your 10 days of silence, you will have to continue your speech therapy and do your voice exercises rigorously. For best results, we recommend that you continue speech therapy for at least one year following your surgery.

ACID REFLUX, ALLERGIES, AND ASTHMA

FOR 3 MONTHS BEFORE SURGERY:

1. If you suffer from environmental allergies or asthma, treatment for these conditions is necessary and we recommend that you avoid any exposure to allergens or stimulants to your asthma.
2. Begin taking your acid reflux prevention medication and follow a strict anti-reflux diet.

FOR 1 YEAR AFTER THE SURGERY IT IS ESSENTIAL:

1. to continue taking your anti-reflux medication;
2. to continue taking your allergy and asthma medication if necessary.

FOR 1 YEAR AFTER SURGERY, IT IS RECOMMENDED:

1. to continue the anti-reflux diet.

PAIN RELIEF

It is normal to feel pain after undergoing a surgery. You will be given a prescription for pain relief medication before your departure from the CMC. Additionally, you will find advice on pain management in Part C of this booklet.

HEALING

Most of the healing of the vocal cords will take place during the first three months after surgery. The rest of the healing takes place more slowly during the first year after surgery.

Due to several factors that are specific to each individual, results may vary from one person to another. Be assured that our surgical team works with each patient to achieve the best results possible.

3 RISKS AND COMPLICATIONS

GENERAL INFORMATION

Although all surgical procedures involve risks, our surgical team works continually to prevent them by maintaining and developing a safe surgical practice. Additionally, a treatment plan with pre and postoperative follow-ups allows for the early detection and management of any complications that may occur.

The following list is partial, and most complications are minor. Some may require a longer period of hospitalization or recovery without necessarily compromising the final results of your procedure.

It is important to note that certain lifestyle habits such as abusive use of the voice, neglect of speech therapy, an unbalanced diet, smoking, alcohol or drug use, physical inactivity, and your health history may increase the risk of complications.

You must disclose all current and past health problems to your surgeon and your anesthesiologist before your surgery takes place. Certain problems may significantly alter the procedure's parameters and may also increase the risk of complications. Make sure to note your medical issues and health history in your "Preoperative Questionnaire" and notify us of any changes that could affect your health.

Smoking and any form of irritation from smoke or steam increases the risk of complications and may completely compromise speech results. Smokers experience increased risks of infectious, pulmonary, respiratory, hemorrhagic, and cardiovascular complications. Smoking can also affect the appearance of scars and cause delayed healing of surgical wounds.

3.1 BLOOD CLOTS AND PULMONARY EMBOLISMS

Immobilization during surgery may increase the risk of blood stagnation in the veins of the lower limbs and pelvis and result in a blood clot that could lead to a pulmonary embolism. These problems require treatment in a hospital centre plus a follow-up with a medical specialist. Early mobilization following surgery helps prevent complications related to blood circulation.

3.2 BLEEDING AND BREATHING DIFFICULTY

Bleeding from the vocal cords or wound is rare but can occur. In very rare cases, they may require a return to the operating room.

It is normal for you to experience a change in your breathing after the surgery since the tension on your vocal cords and the opening between them have been changed. Very rarely, you may have trouble breathing or coughing up blood after surgery. In both situations, you must go to the emergency department of the nearest hospital.

3.3 HEMATOMAS AND SEROMAS

A hematoma is an accumulation of blood beneath the skin while a seroma is related to the later accumulation of clear bodily fluid. In both cases, this accumulation may be mild or severe and may require drainage to remove the excess blood or fluid.

3.4 INFECTIONS

An infection occurs when tissues are affected by microorganisms such as bacteria and/or other pathogens. A local infection is treated with antibiotic ointment while a general infection is treated with antibiotics taken orally or intravenously. A local infection with an accumulation of pus (abscess) requires drainage. Infection is a common risk to all surgical procedure. You may receive preventive antibiotics to reduce the risk of infection.

3.5 ALLERGIES OR SENSITIVITY TO PRODUCTS/MATERIAL USED

In rare cases, an allergic reaction or sensitivity to soaps, ointments, adhesive tape, or stitches may occur during or after the surgical procedure. Generally, this complication is fairly easy to treat. Serious allergic reactions are extremely rare and may require hospitalization.

3.6 REOPENING (DEHISCENCE) OF WOUNDS AND/OR SLOW HEALING

The healing process is influenced by a series of factors: premature use of voice, abusive use of voice, vocal trauma, speech therapy, edema, infection, strain on wounds, deficient blood circulation, alcohol use, smoking, poor nutrition, etc. These factors can slow healing and cause the reopening of wounds that require a longer healing period. Generally, this does not affect the final appearance of the operated area. However, if the final appearance is affected, scar revision surgery may be necessary. When healing affects the wound on the vocal cords it can cause delays in obtaining an adequate voice and even permanent problems associated with voice quality.

3.7 INJURIES TO OTHER PARTS OF THE BODY

In rare cases, blood vessels, nerves, and muscles may be damaged during a surgical procedure.

3.8 LOSS OF SENSATION AND PAIN HYPERSENSITIVITY

It is possible that the neck region will not regain its sensitivity or, on the contrary, that some areas remain hypersensitive and painful. It is also possible that numbness persists in some areas and that sensation does not return completely.

3.9 LARGE AND THICK SCARS (KELOIDS)

The scarring process differs from one person to another and scars may become larger and/or thicker. Your own scarring history should be a good indication of what you can expect. If your scars are large and/or thick, it is possible to correct them with medications such as injectable steroids, silicone dressings, or, if necessary, scar revision surgery.

3.10 UNSATISFACTORY RESULTS AND/OR NEED FOR CORRECTIONS

Corrective surgery may be suggested if the surgeon judges the results to be unsatisfactory. It is important to note that the cost of this type of surgery is not included.

It is important to know that final results cannot be guaranteed. More than 50% of the results are determined by your anatomy, medical conditions, lifestyle habits, use of your voice, and the speech therapy you will have undergone before and after surgery.

3.11 SUBSEQUENT SURGERIES AND INTUBATION

We recommend that you wait at least three months after external surgery and six months after any endoscopic surgery before resorting to any other procedure requiring intubation.

For patients who have had glottoplasty type endoscopic surgery, you will receive a document indicating the size of the tube recommended for your subsequent intubations. You must always keep this document with you for the rest of your life. We recommend that you have this information written on a medical bracelet, which will help emergency responders.

3.12 PSYCHOSOCIAL SUPPORT

Gender affirmation surgeries generate multiple changes in the lives of the patient. To successfully adapt to all these changes, it may be necessary to seek the help of health professionals in addition to that of your loved ones.

You may sometimes experience feelings such as:

- discouragement with postoperative care;
- boredom or isolation during your recovery period;
- sadness over the negative reaction of certain people close to you;
- exhaustion due to pain and the urge to cease important care for your recovery;
- regrets or doubts about your decision to seek surgery; and
- etc.

Should you find yourself in one or more of the above situations, do not hesitate to seek help from local resources for psychosocial or psychological support, or to contact a professional you trust.

CONSENT

IF YOU HAVE ANY QUESTIONS, CONSULT YOUR SURGEON BEFORE SIGNING THIS DOCUMENT.

I,

Patient's name in PRINT

- attest to having had the necessary time to read this document and to have understood the information it contains; and
- attest that I was able to ask my questions and that the answers I received were satisfactory.

Signed in Montreal, this day of 20 .

Patient's signature

Witness' signature

Name of witness in PRINT

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999 De Salaberry Street, Montreal, Quebec H3L 1L2 T 514 288-2097 F 514 288-3547 grsmontreal.com

QMC



**COMPLEXE
CHIRURGICAL**

GRS MONTRÉAL

999, rue De Salaberry
Montréal (Québec) H3L 1L2

T 514 288-2097
F 514 288-3547

grsmontreal.com