



Organ and Tissue Donation Process
What Health Professionals Need to Know
April 2009

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Preface

Since 2002 a dedicated group has been working tirelessly to improve the organ and tissue donation process in Nova Scotia. Beginning with the Links to Success Forum, followed by the Clarica Project, and continuing with the Legacy of Life: Nova Scotia Organ and Tissue Donation Program, the goal has not wavered. That is to encourage and promote organ and tissue donations, and to understand the barriers and challenges to donation. In two needs assessments conducted in 2003 and 2007, health care professionals have indicated that they are less than comfortable with this topic, despite the fact that donation and transplantation are a routine part of the health care system. Health care professionals consistently rated the importance of donation as being high yet their proficiency is low. The goal of this document is to close the gap so that the proficiency of health care providers is also high. With the implementation of the Legacy of Life Program, district resource nurses are now available throughout Nova Scotia to assist health care providers to increase their knowledge and skills. The purpose of this resource is to become a reference tool that health care providers can use to participate in the process to learn more about organ and tissue donation in Nova Scotia, and to connect providers with additional resources. Working together we can all support the process so that families are provided with the opportunity to donate and recipients are provided with the opportunity to live or to have their lives enhanced.

1 Introduction

1.1 Introduction

Organ and tissue donation is a very important part of our province's health system. Organ and tissue donation saves the lives of many Nova Scotians every year. It also helps families cope with the death of a loved one. At a time of shock and grief, family and friends draw comfort from knowing that their loss has helped to renew the lives of others.

Every person could be considered a potential donor. And every health care professional can potentially facilitate the process of organ and tissue donation, by knowing the right questions to ask and how to ask them, and by making a phone call to the right person at the right time.

Health professionals throughout Nova Scotia are a critical part of the organ and tissue donation team. This resource is for health professionals, to support them in saving lives by talking to families about organ and tissue donation. This document offers details about the key organizations involved in the organ and tissue donation process, the critical role of health professionals, and answers to the most frequently asked questions about the process.

1.2 Objectives of the Resource

The objectives of this resource:

- To provide information to health professionals and health administrators about the process of organ and tissue donation in Nova Scotia; and
- To help health professionals and administrators understand their role and the process of organ and tissue donation and how the process works.

1.3 Updates

This resource will be updated on an annual basis by the Legacy of Life Program staff. For this reason, readers are encouraged to regularly check the following website for updates:

www.legacyoflife.ns.ca.

1.4 What is Donation? Why is it Beneficial?

Organ and tissue donation happens when organs and tissues are removed from a person who has recently died and transplanted into the body of another living person. It may also be possible for a living person to donate certain organs to another living person. Transplantation is a very successful way of saving and improving the lives of people who are experiencing serious health problems. It also has a very high success rate. Nearly 98% of all kidney transplants, 90% of liver transplants and 85% of heart transplants are successful. In addition to saving lives, transplants can save health care costs. For example, the average cost of a kidney transplant is about \$20,000 plus \$6,000 annually for anti-rejection medication support. Maintaining a kidney patient on dialysis costs \$50,000 per year.

Unfortunately, there are not enough donated organs and tissues to meet the need for transplants. More than 4,000 Canadians are waiting for organs, and last year alone, 147 people in Canada died while waiting for organs. In Nova Scotia, only 50% of Nova Scotians have registered to become an organ or tissue donor. The gap between the number of available organs and the number of people waiting for transplants continues to grow.

Federal and provincial governments across Canada are working hard to raise awareness about the importance of organ and tissue donation. In Nova Scotia, the Legacy of Life Nova Scotia Organ and Tissue Donation Program encourages

Nova Scotians to become part of the MSI donor registry and to discuss organ and tissue donation with their families.

Health professionals throughout the province play a vital role in offering organ and tissue donation as an option to families and supporting them through the process.

2

Regulations &
Standards

In Canada, organ and tissue donation is regulated at both the provincial and federal level. These regulations and standards contain requirements designed to ensure the donation process is effective, ethical, and safety driven so that donors, their families, and recipients can all benefit from the gift. The processes used for Organ and Tissue Donation in Nova Scotia meet all of these regulations and standards.

2.1 Provincial Regulations

Nova Scotia's *Human Tissue Gift Act* was first legislated over 25 years ago. This law defines the rules governing who can consent to living and deceased donation and how consent can be obtained. Since 1991, the law has required hospitals and health care professionals to ensure that the next-of-kin is asked for his or her consent to organ and tissue donation (a process also known as "required request"). This provision affirmed that discussing organ and tissue donation is a required element of end of life care.

For a copy of the Act, go to: <http://www.gov.ns.ca/legislature/legc/>

2.2 Federal Regulations

Safety of Human Cells, Tissues and Organs for Transplantation Regulations

Canadian federal regulations were implemented in December 2007 to protect Canadian recipients by minimizing the potential health risks of transplanted organs and tissues. The regulations have a significant impact on the donation process, as they establish legally required donor exclusion criteria and screening measures. For example, the regulations require that donor information and history be obtained in accordance with the Canadian Safety Association (CSA) standards.

For a copy of the regulations, go to: <http://laws.justice.gc.ca>.

CSA Tissue and Organ Standards

Developed by the Canadian Safety Association in collaboration with stakeholders, Canadian standards have been in place since June 2003. They are aimed at ensuring the safety of cells, tissues, and organs by incorporating and disseminating best practices. In terms of the donation process, they mandate standards for consent, donor exclusion criteria, and the donor suitability assessment. The Standards are referenced in the Safety of Human Cells, Tissues and Organs for Transplantation Regulations.

To order a copy of the National Standards, call 1-800-463-6727 or go to: www.csa-intl.org/onlinestore/. There is a cost to purchase these standards.

3

**Roles & Functions in Organ
and Tissue Donation in
Nova Scotia**

3.1 Overview of the System

The organ and tissue donation system in Nova Scotia begins with the front line health professional, who is in a unique position to identify potential donors and donor families. There are several other organizations and individuals that support the front line health professional in their role and that are responsible for other aspects of the process.

As shown in figure 1, District Health Authorities have a key responsibility in the organ and tissue donation process. The Chief Executive Officer of each District Health Authority is accountable for ensuring that the District complies with the *Human Tissue Gift Act*. This law requires that a discussion about organ and tissue donation take place as part of end of life care. District Health Authorities ensure that all of the health professionals who provide end of life care are educated about and skilled in discussing organ and tissue donation with potential donors and/or their families.

The Critical Care Organ Donation Program and the Regional Tissue Bank, both located in Halifax, provide key support to District Health Authorities and the front line health professionals. Donor Coordinators and Certified Tissue Specialists are on call 24 hours a day, 7 days a week. They are available at all times to answer questions, provide advice and direction and to facilitate the donation process.

As a provincial program of the Nova Scotia Department of Health, the Legacy of Life Nova Scotia Organ and Tissue Donation Program has a unique role to educate health care professionals, recommend service delivery models and monitor outcomes.

The Multi-Organ Transplant Program, located at the QEII Health Sciences Centre, is responsible for the processes related to transplantation, as well as for living

donations of organs. The roles of each of these partners in the organ and tissue donation system are described in more detail below.

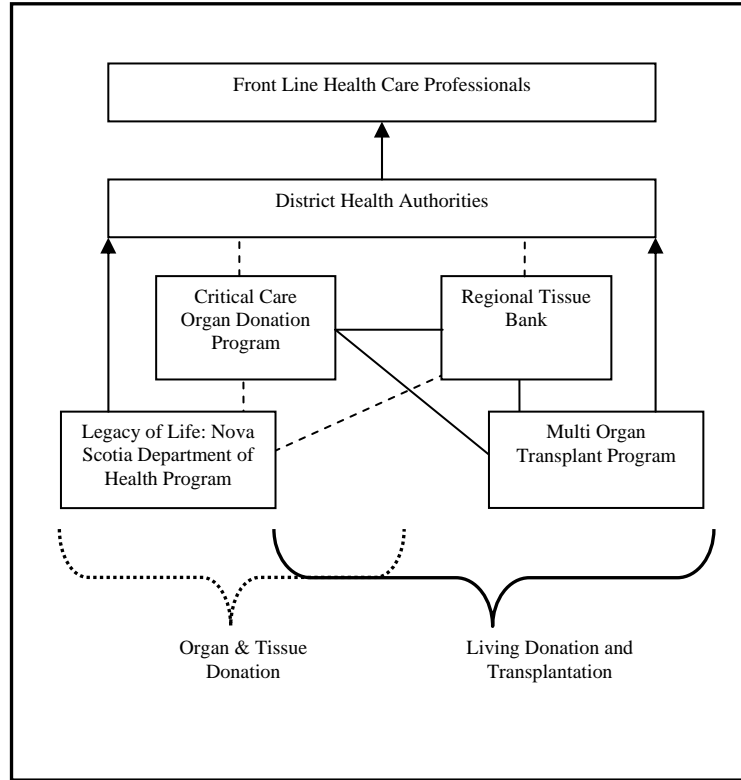


Figure 1: Overview of the Organ and Tissue Donation System in Nova Scotia

3.2 Legacy of Life: Nova Scotia Organ and Tissue Donation Program

In the fall of 2006, the Government of Nova Scotia created the Legacy of Life: Nova Scotia Organ and Tissue Program. The purpose of the program is to encourage the public and health care professionals to know about, and support organ and tissue donation (see figure 2).

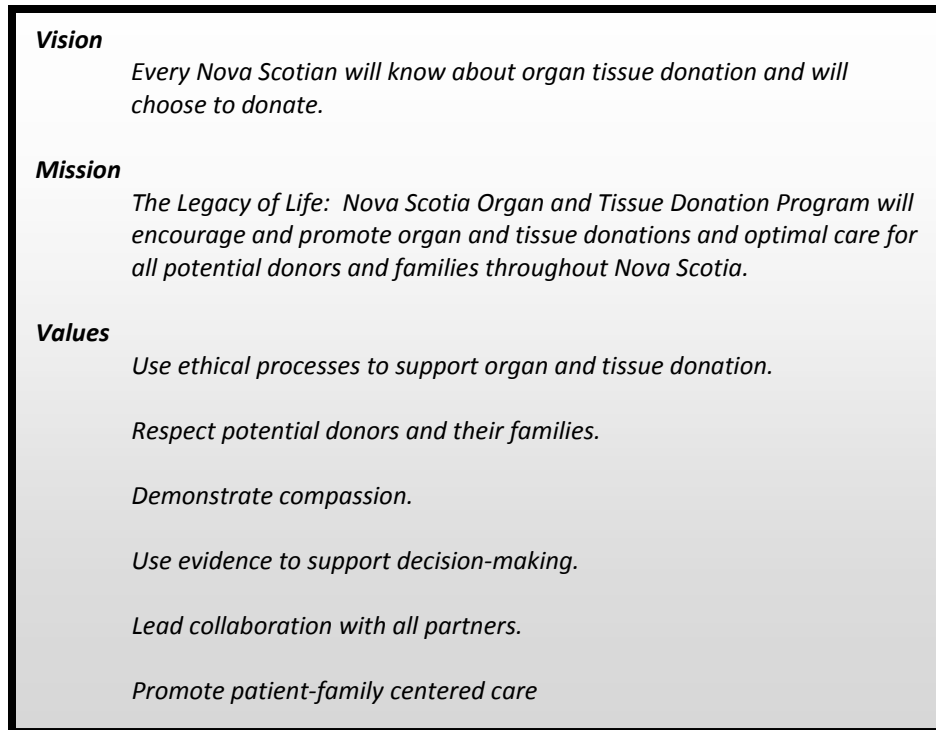


Figure 2: Legacy of Life: Program Vision, Mission and Values

The Legacy of Life Program has identified strategic goals, which include:

1. To review and update the legislative framework around organ and tissue donation;
2. To ensure donors and families are supported during and after donation;
3. To communicate about the need, value and process of organ and tissue donation to the public;
4. To provide education to health professionals about the need, value and process of organ and tissue donation;
5. To monitor and evaluate standards implementation and use of resources;
and
6. To identify, learn from and help define best practices related to the Organ and Tissue Program.

The program is administered by a Provincial Manager, with support and direction from a Medical Advisor, and Organ and Tissue Donation Resource Nurses within the District Health Authorities. The Organ and Tissue Donation Resource Nurses

coordinate and support professional education, implementation of best practices, quality improvement, donor family follow-up and recognition, program monitoring and evaluation and community education.

For more information about the Legacy of Life program, call the Program Manager at (902) 424-7916.

3.3 Critical Care Organ Donation Program

Organ Donation services were incorporated into the Critical Care Program at the QEII Health Sciences Centre in 2001. Prior to that, organ donation had traditionally been part of the Multi-Organ Transplant Program. A National Coordinating Committee on Donation & Transplantation formed by the federal government in 1997 to address the demand/supply issues in donation and transplantation in Canada, recommended that responsibilities for organ donation be separated from transplantation and moved into critical care. Models elsewhere in Canada had demonstrated an increase in donation when Organ Donor Coordinators were aligned with critical care. In 2005, the Critical Care Organ Donation Program expanded to three full time Organ Donor Coordinators and the program has seen increases in donor identification and referral as well as an increase in the number of organs retrieved per donor.

The objectives of the Critical Care Organ Donation Program are to:

1. Ensure all families are offered the option of organ and tissue donation;
2. Provide safe organs and tissues for transplantation; and
3. Promote organ and tissue donation to healthcare professionals and to the public.

The main activities of the Critical Care Organ Donation Program include:

1. Supporting identification, referral and management of organ donors at CDHA, the IWK Grace Health Centre and throughout Nova Scotia;
2. Providing on-site support for all donors located at the QEII Health Sciences Centre and the IWK Grace Health Centre;
3. Coordinating donor screening and clinical management of all organ donors;
4. Coordinating organ allocation and recovery for all organ donors; and
5. Providing education sessions to healthcare professionals throughout CDHA and to public/professional groups on request.

The Critical Care Organ Donation Program works collaboratively with the following programs:

- Multi-Organ Transplant Program (QEII Health Sciences Centre);
- Regional Tissue Bank (QEII Health Sciences Centre);
- Organ Procurement & Exchange of Newfoundland and Labrador; and
- New Brunswick Organ & Tissue Procurement Program.

The Critical Care Organ Donation Program maintains a close working relationship with other donation programs in Canada to participate in organ sharing, to maintain a national urgent status listing of recipients, and to participate in professional and educational activities.

Organ Donor Coordinators are on call 24 hours a day, 7 days a week to answer staff or family questions and to respond to referrals of potential donors. They can be reached through QEII Locating at (902) 473-2220 and requesting to speak with the on call Organ Donor Coordinator.

3.4 Regional Tissue Bank

The Regional Tissue Bank, located at the QEII Health Sciences Centre, has the following objectives:

1. To provide safe and effective tissue for transplantation;
2. To provide safe and effective bone marrow and peripheral stem cells for transplantation; and
3. To provide organ perfusion support for liver, kidney and cardiac programs.

The scope of activities for the Regional Tissue Bank includes:

1. Screening and coordinating all potential tissue donor referrals;
2. Recovery of ocular, skin, musculoskeletal and heart tissues for transplantation;
3. Processing and cryopreserving ocular, skin, musculoskeletal tissues and heart valves for transplantation;
4. Storing ocular, skin, musculoskeletal tissues and heart valves for transplantation;
5. Distributing ocular, skin, musculoskeletal tissues and heart valves for transplantation;
6. Tracking distributed tissues;
7. Reporting adverse outcomes;
8. Respecting confidentiality and ethical consideration of the tissue donors, their families and recipients; and
9. Providing public and health care provider education and awareness.

One of the key roles at the Regional Tissue Bank is that of the Regional Tissue Bank Specialist. The key responsibilities of the Regional Tissue Bank Specialist are to:

1. Respond to all queries regarding tissue donation;
2. Screen all potential tissue donation referrals;
3. Obtain informed consent for tissue donation;
4. Conduct Medical Social History questionnaires and hospital medical chart reviews for all donors;

5. Coordinate tissue recovery, such as making arrangements for an operating room and air and ground transportation for recovery team;
6. Complete tissue recovery;
7. Coordinate the disposition of the body after tissues have been recovered;
8. Coordinate with the Medical Examiner Service of Nova Scotia;
9. Liaise with Organ and Tissue Donation Resource Nurses in the Districts;
and
10. Support education and awareness raising for Nova Scotia's front line health care providers.

Tissue Bank Specialists are on call 24 hours a day, 7 days a week to answer staff or family questions and to respond to referrals of potential donors. They can be reached through QEII Locating at (902) 473-2220 by requesting to speak with the on call Tissue Bank Specialist.

3.5 Multi-Organ Transplant Program

The Multi-Organ Transplant Program at the QEII Health Sciences Centre serves the provinces of Nova Scotia, New Brunswick, Prince Edward Island, and Newfoundland and Labrador. The program provides kidney, liver, heart, and pancreas transplantation services.

The goal of the Multi Organ Transplant Program is to create a multidisciplinary organization consisting of two pillars: clinical care and scientific research. The program is dedicated to serving patients, educating the next generation and developing, directing and translating new therapeutic strategies for the future. The program ensures that Atlantic Canadians have equitable and appropriate access to transplantation services and continues to improve patient care and the success of transplantation.

As a transplantation centre, the program works collaboratively with the Legacy of Life Provincial Program, Critical Care Organ Donation Program, Regional Tissue Bank and other provincial organ and tissue donation programs located in Atlantic Canada.

In addition to providing patient services, the Multi-Organ Transplant Program is involved in professional and community education, from educating community groups and nursing students to long-term strategic planning and program development.

3.6 MSI Donor Registry

Nova Scotians who support organ and tissue donation are encouraged to record their wishes on their Nova Scotia health cards at the time of renewal on documents provided. If a card is not due for renewal, a person can register as a donor by contacting the MSI program at 902-496-7008 or 1-800-563-8880.

Health cards of people who have registered as donors are stamped with the word DONOR and a number indicating wishes:

- number 1 means consent to donate all organs and tissues;
- number 2 means consent to donate specific organs and/or tissues as listed on the registry

4

**Identifying & Referring
Potential Organ Donors**

4.1 Organ Donation – The Health Professional’s Role

One of the most important roles that health professionals have in the organ donation process is calling an Organ Donor Coordinator as soon as a potential donor is identified. Donor Coordinators are on call 24 hours a day, 7 days a week and will provide health professionals with all of the information and support that is required throughout the donation process.

As soon as a potential organ donor is identified, health professionals should call the following number and ask to speak with an Organ Donor Coordinator:
902-473-2220

4.2 Organs That Can Be Donated

There are many diseases that can damage organs to the point that a transplant is required. Figure 3 provides some examples of organs that can be transplanted and some of the reasons why a transplant is required.

Organ	Reasons Why A Transplant May Be Needed
Bowel	Crohn’s Disease Injured intestine
Heart	Congestive heart failure Enlarged heart
Kidneys	Kidney failure (because of illnesses such as diabetes) High blood pressure
Liver	Hepatitis Liver Failure
Lungs	Cystic Fibrosis Emphysema
Pancreas	Diabetes

Figure 3: Examples of the Types of Organs That Can Be Transplanted

4.3 Who are Eligible Organ Donors

Deceased organ donation can take place only when it has been determined that a patient with a severe brain injury and on mechanical ventilation has suffered brain death. Withdrawal of life sustaining therapy is planned and a physician has determined that the patient is medically suitable for donation. Brain death may occur due to complications of such conditions as ruptured aneurysm, traumatic head injury and stroke due to hemorrhage or anoxia. Very few deaths (1 – 3 % of all deaths) occur as a result of brain death.

Under certain conditions, donation after cardiac death may be a consideration in patients for whom a decision has been made to withdraw life sustaining therapy, even though they do not meet the criteria for neurological death.

Medical Examiner Cases can become donors if permission to donate organs and tissues is given by the medical examiner.

Living donation of organs occurs when a person who is still living donates an organ to be transplanted into another person. The two people are usually family members or close friends. Living donations are managed through the Multi-Organ Transplant Program.

4.4 The Organ Donation Process

There are many important aspects in the organ donation process. Frontline health professionals at the QEII and IWK are supported on site by the Critical Care Organ Donation Coordinators. For organ donors outside QEII/IWK the table below outlines the process, and who is responsible for what actions.

	Critical Care Organ Donation Coordinator (QEII Halifax)	Frontline Health Professionals (Nurses, Physicians)
Identification and/or Referral of potential organ donor to Organ Donation Coordinator		<p>Recognize potential donor:</p> <ul style="list-style-type: none"> • Severe acute brain injury • (GCS < 5T) • Intubated/Ventilated • Decision has been made to withdraw care <p>As soon as possible call locating at the QEII and ask for the Organ Donation Coordinator on-call (902-473-2220). Be prepared to provide the following information:</p> <ul style="list-style-type: none"> • Potential donor name • Date of birth and age • Health card registration number • Hospital unit number (if applicable) • Next of kin name and contact information <p>You can also call anytime with questions. You can also call the Organ Donor Coordinator anytime with questions.</p>
Donation Conversation With Family	<p>For patients in hospitals outside of Halifax, the Organ Donor Coordinator can assist in the conversation with the family via telephone.</p> <p>If family indicates interest in proceeding with organ donation this is considered a verbal consent. Formal written/telephone consent for donation will be obtained in Halifax.</p> <p>NB: contact between the family</p>	<p>The discussion about the potential for organ donation is held after the discussion about withdrawal of life support.</p> <p>If family is interested in organ donation, frontline healthcare professionals will ensure that next-of-kin contact information is obtained.</p>

	Critical Care Organ Donation Coordinator (QEII Halifax)	Frontline Health Professionals (Nurses, Physicians)
	and the Organ Donor Coordinator is required prior to transportation.	
Transfer to Halifax (QEII or IWK if patient is in hospital outside Halifax)	Collaborates with district ICU/ED physicians and staff to answer any questions regarding support of donor during transport to Halifax.	Arrange transportation of potential donor to Halifax. Maintain hemodynamic stability of organ donor during transport.
Organ Donor Medical Management	Any specific organ donor medical management will be initiated at the QEII/IWK. Note: the process of medical management can last 24 hours or more.	Maintaining hemodynamic stability within usual ICU/ED parameters.
Neurological Determination of Death	Will be completed by two Physicians after admission to 5.2 Medical Surgical Neurosurgical Intensive Care Unit or IWK in Halifax.	
Organ and Tissue Donor Registry	Organ Donor Coordinator can access the MSI donor registry if needed to confirm whether the person was registered as an organ donor.	Contact the Organ Donor Coordinator if the patient's donor status is requested by family.
Consent for Organ Donation from Legal Next-of-Kin	Formal written/telephone consent will be completed by the Organ Donor Coordinator or Physician on 5.2 MSNICU in Halifax.	Verbal consent is obtained from the family after they have indicated interest in donation. This is communicated to the Organ Donor Coordinator and documented on the patient's chart.
Donor Medical History & Behavioural Risk Assessment Questionnaire	Completed by the Organ Donor Coordinator.	
Documentation for Transportation		Documentation is the same as for any critical care patient.

4.5 Frequently Asked Questions about Organ Donation

The following are questions that families may ask health professionals about organ donation, and answers to assist health professionals in responding to families.

Q: How do I express my wish to become an organ and tissue donor?

A: Nova Scotians can document their donation wishes on their provincial Health Card. Someone who is a Donor 1 has agreed to donate all organs and tissues. Someone who is a Donor 2 has agreed to donate specific organs and tissues.

Q: Why is it important to tell my family my donation wishes?

A: Every effort is made to respect the wishes of the donor. Talking you're your family about your wishes, and making them known, helps the family when presented with the donation option.

Q: If I sign my MSI health card to indicate my wish to donate, will everything still be done to save my life?

A: Yes! Every effort is made to save your life before donation is considered. The option of organ and tissue donation is presented only when death is imminent or after a physician has declared death.

Q: If I have a serious medical condition can I still donate?

A: Many people wonder how to fill in the organ donation information on their health card renewal form. A thorough medical screening of each donor is completed and organs and tissues not suitable for transplantation are not recovered from donors.

Q: Who can be a donor?

A: There is no age limit for organ donors. Anyone under the age of 80 years is a potential tissue donor. Previous health history is very important - each potential donor is medically screened to prevent transmission of disease to the recipients (similar to the screening that is done when blood is donated).

Q: How do I arrange to donate my body to medical science?

A: Dalhousie University's Department of Anatomy handles all requests for Body Donation. Call 494-6850 for more information or go to their website: www.anatomy.dal.ca and click on human body donation.

Q: Can I be an organ and tissue donor and also donate my body to medical science?

A: You cannot be an organ donor if you have chosen to donate your body to medical science, but you may be eligible to donate corneas.

Q: What organs and tissues can be donated?

Organs: heart, lungs, liver, kidneys, pancreas, small bowel

Tissues: corneas, skin, bone, tendons and ligaments, heart valves

Q: How many lives can a donor save?

A: One organ donor can save up to 8 lives and one tissue donor can enhance up to 40 lives

Q: How do I arrange transport of a patient to the QEll for organ donation?

A: The arrangements are made in the same manner as with the transfer of any critically ill patient being sent to the QEll.

Q: Do most religions support organ and tissue donation?

A: All major religions support organ and tissue donation.

Q: Does organ or tissue recovery interfere with funeral arrangements?

A: Donation may delay funeral arrangements by up to one day.

An open-casket funeral remains an option.

Q: Is there a cost to my family if I choose to be a donor?

A: There are no extra costs to the family for medical procedures related to organ and tissue donation. The family is still responsible for all the usual funeral arrangements and costs associated with burial.

Q: Can someone buy or sell organs or tissues in Canada?

A: The buying and selling of organs and tissues is illegal in Canada, it is prohibited by the Nova Scotia Human Tissue Gift Act.

Q: Can living people donate organs?

A: Yes! The rate of living donation is increasing. Kidney donation is the most common procedure, but some centers also perform liver and lung transplants from living donors.

5

Identifying & Referring
Potential Tissue Donors

5.1 Tissue Donation – The Health Professional’s Role

One of the most important roles that health professionals have in the tissue donation process is calling a Tissue Specialist as soon as a potential donor is identified. Tissue Specialists are on call 24 hours a day, 7 days a week and will provide health professionals with all of the information and support that is required throughout the donation process.

As soon as a potential tissue donor is identified, health professionals should call the following number and ask to speak with a Tissue Specialist:

902-473-2220

5.2 Tissues That Can Be Donated

There are different types of tissues that can be used to save or enhance lives. Many diseases and injuries can damage tissues to the point that a transplant is required. Figure 4 provides some examples of tissues that can be transplanted and some of the reasons why a transplant can be required. Donated tissue including skin, heart valves and bone may be stored up to five (5) years.

Tissue	Reasons Why A Transplant May Be Needed
Bone	Bone is the second most transplanted tissue in the world, second only to blood. Donated bone is used daily in operating rooms across the country to treat traumatic injuries, bone loss due to cancer and hip replacements. Bones including humerus, tibia, fibula, femur, ilium are recovered.
Corneas and Sclera	To restore sight to people who have damaged corneas due to disease or injury. Corneas are transplanted within 7 days of recovery, restoring sight to two (2) recipients. Sclera is used to treat traumatic eye injuries and is used for many glaucoma procedures.
Heart Valve	Heart valves (aortic and pulmonic) are used by cardiovascular surgeons to repair birth defects, leaky valves and to treat endocarditis. Recipients who receive mechanical heart valves require life long anti-coagulation therapy. Surgeons prefer to use donated human heart valves for women of child bearing age and children.
Ligaments and Connective Tissue	To restore the function and mobility of injured and damaged joints. The following tendons and ligaments are used to repair anterior and posterior cruciate ligament (ACL, PCL) tears: Achilles tendon, tibialis tendon, hamstring and patella tendon.
Skin	Plastic surgeons use donated skin to treat critically burned patients. A critically burned patient may require up to 200 skin grafts during their recovery and rehabilitation.

Figure 4: Examples of the Types of Tissues That Can Be Transplanted

5.3 Who Are Eligible Tissue Donors

Deceased persons 80 years of age and under may donate tissues for transplantation. To be eligible for donation:

- Cardiac death must have occurred;
- The time of death must be known.

Organ donors may be tissue donors.

5.4 The Tissue Donation Process

	Regional Tissue Bank	Frontline Health Professionals (Nurses, Physicians, Paramedics)
Identification of Potential Tissue Donor		Recognize potential donor: <ul style="list-style-type: none"> • Cardiac death has occurred or decision has been made to withdraw care and this has been discussed with the family. • Person is 80 years or younger. • Time of death is known.
Consult Regional Tissue Bank Specialist		Contact the Regional Tissue Bank Specialist on call 902-473-2220 and provide the following information: <ul style="list-style-type: none"> • Potential donor name • Date of birth and age • Health card registration number • Hospital unit number (if applicable) • Cause of death • Time of death • Next of kin name and contact information You can also call anytime with questions.
Rapid Screen	A rapid screen will be conducted to determine suitability for donation. Additional information may be requested of hospital staff (e.g. past medical history, ventilation, autopsy, etc).	
Preparation for donation	Tissue specialists obtain consent and medical/social history from family	Care for the remains while waiting for tissue retrieval by: <ul style="list-style-type: none"> • Putting polysporin drops in the eyes • Placing ice packs on the eyes • Documenting in chart the time these activities occurred
Organ and Tissue Donor Registry	Tissue Bank Specialist can access the MSI donor registry if needed to confirm whether the person was registered as a donor.	Contact the Tissue Bank Specialist on call if the patient's donor status is requested by the family.
Coordination	Tissue Bank Specialist will complete all medical screening to determine eligibility to donate, including consent, hospital chart review, donor medical social questionnaire, book	

	Regional Tissue Bank	Frontline Health Professionals (Nurses, Physicians, Paramedics)
	<p>operating room, transfer, liaison with hospital contact and Medical Examiners office.</p> <p>If recovery is to take place in the local hospital you will be contacted by the Tissue Bank with specific Operating Room needs.</p>	

5.6 Frequently Asked Questions About Tissue Donation

These are frequently asked questions by health professionals and donor families.

Q: Why is tissue donation important?

A: Tissue donor families overwhelmingly tell us that donation provides meaning to an unexpected death. Please respect the tissue donor family's right to be offered the option of tissue donation.

Q: Will tissue donation impact the Operating Room schedule?

A: Tissue Bank Specialists work very closely with OR personnel to ensure tissue recovery does not disrupt scheduled operative procedures.

Q: Will the referral take a long time?

A: No. A rapid screen will be conducted. You may appoint a delegate to provide any additional information required.

Q: I have never approached a family, will I have some help?

A: Absolutely. Skilled Tissue Bank Specialists may offer some key introduction phrases that you may use.

Q: Do I have to obtain the consent?

A: No. Tissue Bank Specialists will obtain the consent and complete all aspects of medical screening for suitability.

Q: Can cancer patients donate tissue?

A: Many cancer patients are able to donate. Please call the Tissue Bank to determine if suitable.

Q: How do I record my conversation with the Tissue Bank?

A: Document your conversation with the Tissue Bank in Progress or Nursing notes.

Q: My patient died several hours ago; can he/she still be a tissue donor?

A: Yes. Tissue recovery can take place up to 24 hours after death. The following are questions that families may ask health professionals about organ donation, and answers to assist health professionals in responding to families.

Q: Will the donor family know the outcome of donation?

A: Yes, they will receive a letter that explains what tissues were recovered and if corneas have been transplanted.

Q: Can the donor family meet the tissue recipients?

A: Donation is an anonymous gift; the Regional Tissue Bank Specialists can assist them in writing to the recipients but no identifying information will be disclosed.

Q: Can there be an open casket for the donor's funeral?

A: Yes.

Q: Can the donor be a tissue donor AND donate his body to science?

A: No, unfortunately the donation can only be made for one purpose or the other.

Q: How long will it take to recover the tissue?

A: Tissue recovery may take from 2 – 10 hours.

Q: Where will tissue recovery take place?

A: The Tissue Bank Specialist will coordinate tissue recovery in an operating room at your local hospital whenever possible. Family will always be contacted if the donor must be transported to a regional hospital facility.

Q: Who will recover the donor's tissues?

A: Highly skilled professional staff will complete tissue recovery.

Q: Will the tissue recovery be respectful?

A: Yes. Our professional staff will ensure the donor is treated with utmost respect and dignity at all times.

Q: My patient has cancer, can he or she donate tissue?

A: Yes. Many cancer patients may be able to donate.

Q: My patient wears glasses, can he or she donate corneas?

A: Yes. Patients with many eye conditions, glaucoma, cataracts etc. can donate corneas.

6

Approaching Families
About Donation

6.1 The Decision to Donate

The decision on whether or not organs or tissues are donated is often made in advance of death through registration on the MSI health card. It is very important to respect the wishes of the donor. Families often find it easier to support the decision when the wishes of the deceased are known. However, it is an extremely challenging time for the family, and the discussion about organ and tissue donation needs to be incorporated into the end-of-life care process at the appropriate place and time.

Tips for Meaningful Donation Discussion with Families

The Legacy of Life Program supports a dual advocacy approach to requesting consent for organ and tissue donation. Dual advocacy is an evidence-based approach that considers the interests of both donor families and persons in need of transplants. The person requesting the family's consent for donation is a healthcare professional who supports organ donation and believes that donation is the right thing to do. The dual advocate approach is also based on the belief that most people, when given the opportunity, will choose to help others.

The healthcare professional's role as dual advocate

- Express condolences to the family
- Create a meaningful conversation for the family by displaying empathy and interest in their loved one
"I would love to hear a little about Sam, Mrs. Jones, and the kind of person he was."
"Sam's nurse told me he is the oldest of four children. From what I have heard, it sounds like he was a great role model for your other children."
- Respect each family's right to make their own fully informed decision
- Transition from the discussion about death to the discussion about donation
"Mr. and Mrs. Jones, because of the type of injury Sam had, and because he was an otherwise healthy young man, you have the opportunity to provide the

gift of life to other families through organ donation. I'm going to tell you more about this process and what it could mean to the many people awaiting transplant, and to your family as well."

- Help the family to understand the need for life-saving organs and tissues
- Help the family to understand the rare opportunity they have to save and touch the lives of potential recipients and families

Sample words to use

Legacy	Hope	Inspiration
Ability	Honor	Power
Celebrate	Courage	Opportunity
Act of Kindness and Compassion		Selflessness

- In requesting the consent for donation, the “ask” is stated in a positive way and is empowering to the family. Be affirmative and supportive toward donation.

“Do you have any other questions before we move forward?”

“We will work with you, to do everything possible to make donation a reality for your family.”

- Acknowledge the gift, express gratitude

“Thank you Mr. and Mrs. Jones for having the strength to help others.”

“On behalf of the recipients, I want to thank you for donating.”

* If you would like to learn more about how to have meaningful donation conversations, please contact your Legacy of Life District Resource Nurse to register for an upcoming healthcare professionals' workshop - *“Offering a Legacy of Life: Meaningful Donation Experiences”*. For District Resource Nurse contact information, go to www.legacyoflife.ns.ca.

6.2 Guiding Principles for Communicating with Families

The following guiding principles are offered for health professionals to consider as they approach families about organ and tissue donation (the guiding principles are adapted from those developed by the Trillium Gift of Life Network).

Donor families have the right to expect:

- To be treated with respect, sensitivity and understanding by all health professionals.
- That issues of personal privacy and confidentiality are paramount at all times throughout the donation continuum, from the initial donation conversation to completion of support after donation.
- A complete explanation of the neurological death or cardiac death of their loved one, in a private and quiet area away from the loved one's bedside and in a caring and sensitive manner.
- To have the chance to make an informed decision about the option of organ and/or tissue donation, and that this option is facilitated wherever possible by a person who is specifically trained in requesting.
- That conversations about organ and/or tissue donation take place in an environment and at a pace that is comfortable for the family, and include ample opportunity for them to ask questions, seek clarification, and have information repeated if necessary to ensure the family has a clear understanding.
- That these conversations take place within a timeframe that ensures families have enough time to consider and comprehend neurological death and cardiac death, and to have all questions regarding death answered for them before any conversation about the option of organ and/or tissue donation.
- To have their decision regarding the option of organ and/or tissue donation accepted and respected in a manner that is without threat of influence or coercion.

- An explanation of the organ and tissue donation process that is sensitive to their needs and interest, including information about serology testing, organ suitability, allocation of organs and/or tissues, surgical recovery of donated organs and/or tissues, and research options.
- To be assured that their loved one will be treated with dignity and respect during the donation process, including the surgical recovery of donated organs and/or tissues.
- To be offered additional support, where possible such as a spiritual advisor/faith leader, extended family member, ICU social worker, or other supports desired by the family.
- To have opportunities alone with their loved one to say goodbye in a manner that is sensitive to the family's needs, as well as cultural and religious beliefs.
- To be given information, if desired, regarding the outcome of the donation, organs and/or tissues that were recovered and about future use of donated tissue.

7

Donor Family Support

7.1 Supporting Donor Families after Donation

The decision to donate organs and tissues comes at an exceptionally difficult time for families, and represents a truly altruistic lifesaving gift. Many families receive comfort from knowing their loved one was able to help others. The Organ Donor Coordinators and Tissue Bank Specialists follow up with donor families after the donation has occurred and provide them with information about what organs and tissues were recovered and/or transplanted.

Every spring, the Critical Care Organ Donation Program and Regional Tissue Bank and the Legacy of Life Program host a *Gift of Life* recognition ceremony to honour the previous year's organ and tissue donors and their families.

8

Record Keeping,
Monitoring and Evaluation

8.1 Required Documentation

The law requires that the chart for every deceased person be documented to indicate that either:

- A referral was made for organ and tissue donation; or
- The reason why a referral was not made.

8.2 Evaluation and Monitoring

The Legacy of Life evaluation and monitoring strategy has two objectives:

- to evaluate the program model implementation and effectiveness.
- to monitor the impact of the program on organ and tissue donor rates.

The evaluation and monitoring strategy has numerous components, including:

- Chart audits in every District to determine how many potential donors were available each year and how many potential donor families were approached about donation.
- Family and Living Donor Satisfaction Survey to learn from families about their satisfaction with the donation process.
- Reviewing the number of MSI cards with the donor option signed each year.
- Tracking the number of donors and potential donors annually.
- Periodic interviews with Legacy of Life Program staff and District health professionals involved in the donation process.

For more information about the evaluation and monitoring strategy, please contact the Legacy of Life Program.

9	Resources
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9.1 Useful Resources On-Line

Canadian Blood Services – Organs and Tissues Division

<http://www.ccdt.ca/english/home.html>

Canadian Association of Transplantation

www.transplant.ca

Canadian Organ Replacement Registry

www.cihi.ca

9.2 Local Resources in Nova Scotia

Your local District Resource Nurse may be able to assist with identifying local resources for end of life care.

10

Glossary

Glossary

AORTIC HEART VALVE: Outflow valve of the left side of the heart.

ALLOGRAFT: Tissue intended for transplantation into another individual.

ASYSTOLE: Time of cardiac death.

BONE: Rigid connective tissue that forms the skeleton of the body.

BRAIN DEATH: Irreversible cessation of all brain and brain stem function.

CADAVERIC ORGAN DONOR: A patient pronounced dead on the basis of neurological evidence (brain death), but with respiratory and circulatory function supported, who donates organs.

CORNEA: Transparent front part of the eye that covers the iris, pupil, and anterior chamber, providing most of an eye's optical power.

CRITICAL CARE ORGAN DONATION PROGRAM: A program at CDHA that supports the process of organ donation, donor suitability assessment, staff and public education, and a variety of other activities.

DONATION AFTER CARDIAC DEATH: Donation of organs from patients who are pronounced dead on the basis of cardiocirculatory criteria, providing the option of donation in cases where the criteria for neurological determination of death cannot be met.

GIFT OF LIFE: Donor recognition ceremony that takes place annually in to honour organ and tissue donors and their families.

GLASGOW COMA SCALE: Neurological scale which aims to give a reliable, objective way of recording the conscious state of a person for initial as well as continuing assessment.

HUMAN TISSUE GIFT ACT OF NOVA SCOTIA: An act to facilitate the making of inter vivo and post-mortem gifts of human tissue(Chapter 215 of the revised statutes,1989. As amended by: 1991, C13).

INFORMED CONSENT: A procedure where information concerning the donation process is presented to the donor or donor's next of kin with an opportunity for them to ask questions, after which specific approval is documented.

LIVING DONOR: A donor whose heart is beating at the time of donation (ex: live kidney donations).

MAY: Used to indicate an acceptable method that is recognized but not essential (i.e. should).

MULTI-ORGAN TRANSPLANT PROGRAM: Located in Halifax, Nova Scotia, the Multi-Organ Transplant Program at the QEII Health Sciences Centre serves the provinces of Nova Scotia, New Brunswick, Prince Edward Island, and Newfoundland, providing kidney, liver, heart, and pancreas transplantation services.

MUSCULOSKELETAL TISSUE: Relating to or involving the muscles and the bones of the skeleton.

MUST: Used to indicate a mandatory requirement (i.e. shall).

ORGAN: A vital organ requiring perfusion by the circulatory system until time of retrieval. The organs for donation may include: kidneys, liver, heart, small bowel, pancreas and lungs.

ORGAN DONOR COORDINATOR: Employee of Capital Health who, as part of the Critical Care team, facilitates and coordinates the donation process which includes: screening potential organ donors, offering families the option of donation, supporting the medical management of organ donors, coordinating organ allocation and recovery, providing donor family follow up, and educating healthcare professionals and the public about organ and tissue donation.

POTENTIAL ORGAN DONOR: A patient who has suffered severe and irreversible brain injury and is mechanically ventilated, and for whom a decision has been made to withdraw life sustaining therapy.

PULMONIC HEART VALVE: Oxygen-depleted blood is pumped through the pulmonary valve to the lungs to pick up oxygen.

RECIPIENT: An individual into whom tissue is transplanted.

RECOVERY SITE: The immediate area or room where a tissue recovery takes place (i.e. Operating Room).

REGULATIONS: The Health Canada Regulations for Cells, Tissues and Organs (CTO) came into effect on December 7, 2007, following extensive consultation over a period of 11 years with the Donation and Transplant communities and Canadians. The purpose of these regulations is to minimize the potential health risks to Canadian recipients resulting from transplantation. The CTO Regulations include requirements for the screening and testing of potential

donors which are intended to protect the health and safety of Canadian transplant recipients.

SCLERA: Commonly known as "the white of the eye", the tough, opaque tissue that serves as the eye's protective outer coat.

SERVICES TO DONOR FAMILIES: Policy or program that is offered to the consenting person. Program may include written communications regarding the potential use of tissue, tissue recovery outcome information, bereavement support and details of who to contact if any questions arise regarding donation.

SKIN: Largest organ of your body. A piece of skin taken from a donor area and surgically grafted at the site of an injury or burn.

STANDARDS: "Standard" means National Standard of Canada CAN/CSA-Z900.1 entitled *Cells, Tissues, and Organs for Transplantation and Assisted Reproduction: General Requirements*, as amended from time to time.

TISSUE: Functional group of cells.

TISSUE BANK: The entity that provides services such as assessing donor suitability, recovery, processing, storage and distribution of tissue.

TRACEABILITY: The ability to locate tissue during any step of its donation, collection or recovery, processing, storage, distribution or disposition. The capacity to identify the medical facility receiving the tissue and the ability for the medical facility to identify the recipient.

TRANSPLANTATION: The transfer of allograft tissue to a recipient. This includes musculoskeletal, skin, cardiovascular and ocular tissues.