# Resources & Links



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# General Glossary of Terms

CORE- Center for Organ Recovery and Education; PA O.P.O.

G.O.L.- Gift of Life; PA O.P.O

**O.P.O.-** Organ Procurement Organization

**OTDA-** Organ and Tissue Donation Awareness

P.D.E.- Pennsylvania Department of Education

**Anatomy-** The dissection of a plant or animal to study the structure, position, and interrelation of its various parts

**Brain Death-** Is death. All brain tissue is dead. There is no blood flow to the brain and no electrical activity occurs in the brain during this state

Donor- An individual from whom blood, tissue or an organ is taken for transfusion, implantation or transplant

**Ethics**- The rules or standards governing the conduct of a person or the members of a profession (eg). Medical ethics

Implantation- To insert surgically (eg.) To implant a heart

**Informed Decision-** The act of reaching a conclusion or making up one's mind after acquainting oneself with knowledge of a subject

**Initiative-** The ability to begin or to follow through energetically with a plan or task (eg). The OTDA Curriculum Framework Initiative was started in 1997 between two organizations, PA Departmentment of Education and the Lancaster-Lebanon IU 13.

Organ- A differentiated part of an organism, such as an eye, that performs a specific function

Physiology- The study of the functions of living organisms and their parts

Procurement- to obtain or acquire for another

Recipient- One who receives blood, tissue, or an organ from a donor

**Resources**- Something that can be used for support or help. The OTDA toolkit gives a teacher resources (cd rom/ dvd, sample lesson plans, OTDA facts and myths, etc.)

**Tissue-** An aggregation of morphologically similar cells and associated intercellular matter getting together to perform one or more specific functions in the body. There are four types of tissue: muscle, nerve, epidermal & connective

**Toolkit-** A set of resources (i.e.: sample lesson plans, cd rom, OTDA classroom activities, real life stories, etc.) used to aid a teacher in educating students on OTDA

Transfusion- The transfer of whole blood or blood products from one individual to another

Transplantation- To transfer (tissue or organ) from one body or body part to another

### General Subject Glossary

#### http://www.transplantawareness.org/resguide/chap42.htm

As you learn more about transplantation, your vocabulary will begin to expand rather rapidly. We have noted here a number of the terms frequently used in transplantation. Remember this is just a sample.

#### Acute

Having severe symptoms and a short course

#### Acute tubular necrosis (ATN)

Reversible kidney damage resulting in delayed kidney function after transplant. Among other factors, it may be caused by sub optimal organ storage before transplantation or medication used to prevent rejection

#### Allocation

The system of ensuring that organs and tissues are distributed fairly to patients who are in need

#### Allogenic

Refers to genetically different members of the same species. See transplantation

#### Allograph

An organ that is removed from a donor to be used in another person

#### Anemia

A condition characterized by too few red blood cells in the bloodstream, resulting in insufficient oxygen to tissues and organs

#### Antibody

A serum protein consisting of soluble molecules that is produced by the body's immune system, they are produced in response to and bind to substances, usually foreign, known as antigens, antibodies to transplantation antigens are one of the mediators of graft rejection

#### Antibiotic

A drug used to fight bacterial infections

#### Antigen

A substance, such as a transplanted organ, that can trigger an immune response. This immune response may be the production of antibodies

#### Apheresis

An apheresis donation returns unwanted portion of blood to the donor. Usually relating to a platelet donation

#### Arteriogram

An x-ray of the arteries taken with the aid of a dye, sometimes referred to as angiography

#### Ascites

Accumulation of fluid in the stomach

#### Aseptic necrosis

One or both hip joints may suddenly undergo massive deterioration in patients using a high dosage of steroids for a prolonged time. Dietary calcium and/or supplements are recommended for prevention

#### Atherosclerosis

The disease in which fatty deposits build up on the inner walls of the arteries, causing narrowing or blockage that can lead to heart attack. Commonly known as "hardening of the arteries"

#### Autoantibody

ourself

An antibody that reacts with antigens on a person's own cells and tissues

#### Autoimmunity

The condition in which the immune system mistakenly attacks the body's own cells and tissues; this immune reaction is the basis of a variety of autoimmune diseases including diabetes, rheumatoid arthritis, and system lupes erythematosus, among others

#### B cell

A specialized white blood cell responsible for the body's immunity. B cells play a central role in antibody production

#### Bacteria

Microscopic organisms that invade human cells, multiply rapidly and produce toxins that interfere with normal cell functions

#### **Beta blockers**

A class of drugs that lower blood pressure

#### Bile

Fluid produced by the liver that is transported to the intestine to help digestion and remove waste products.

#### **Bile ducts**

Passageways in and from the liver that transport bile.

#### Bilirubin

Substance in bile that is produced when the liver processes waste products. A high bilirubin level causes yellowing of the skin.

#### **Biliary cirrhosis**

Slow, progressive scarring of the bile ducts in the liver

#### Biopsy

Removal of tissues for examination under a microscope

#### Bladder

The part of the urinary tract that receives urine from the kidneys and stores it until urination

#### **Blood vessels**

The arteries, veins and capillaries through which blood circulates. Blood vessels can be donated and transplanted

#### Bone

Dense tissue that forms the skeleton. Bone can be donated and transplanted

#### **Bone marrow**

Spongy tissue in the cavities of large bones, where blood cells are produced. Sometimes referred to as a tissue donation.

#### **Brain death**

The condition in which the brain has permanently ceased functioning as determined by the medical team. Cadaveric organs are recovered from persons declared brain dead in the US.

#### BUN

Stands for Blood Urea Nitrogen, a waste product normally excreted by the kidney, Your BUN value represents how well the kidneys function.

#### Cadaveric organ

An organ from a person who has been declared brain dead

#### Candidate

A person awaiting an organ or tissue transplant

#### Cardiac

Relating to the heart

#### Catheter

Small, flexible plastic tube inserted into the body to administer or remove fluids

#### CellCept

A new drug used to assist the immune system in transplanted patients, is approved for renal allograft rejection in combination with cyclosporine and corticosteroids (prednisone)

#### Chronic

Persisting for a long time

#### Cirrhosis

Irreversible scarring of the liver. Can be caused by a variety of conditions

#### **Clinical trail**

A prospective, scientific evaluation of a treatment regimen, agent (e.g. drug), device, or procedure used for the prevention, diagnosis, or treatment of a disease

#### Coagulation

Relating to the process of clotting, usually the body's system of controlling bleeding

#### Cocktail

Refers to a combination of drugs prescribed to prevent rejection consisting of cyclosporine, imuran, and prednisone. This combination's success allowed transplantation to proceed beyond the experimental stage

#### **Connective tissue**

Forms the supportive and connective structures of the body

#### Cornea

The transparent outer coat of the eyeball that covers the iris and pupil. Corneas can be donated and transplanted

#### Corticosteroids

Hormones secreted by the adrenal gland. Corticosteroids can be manufactured. In high doses, corticosteroids cause immunosuppression. See prednisone

#### Creatinine

A product of muscle metabolism. Creatinine level is referred to as a number that is watched closely and serves as an indicator of kidney function

#### Crossmatch

A test for recipient antibodies versus donor antigens. A positive crossmatch means the recipient and donor are incompatible. A negative crossmatch means there is no reaction between donor and patient and that the transplant may proceed

#### Cyclosporine

A drug commonly used after transplantation to suppress the immune system of the recipient and prevent rejection by the immune system of the transplanted organ or tissue. See cocktail

#### **Deceased donors**

Donors who donate their organs or tissue after they have been declared brain dead

#### Dialysis

Mechanical ways of cleaning the blood in kidney failure

#### Diastolic

ourself

The bottom number of a blood pressure reading measuring the heart at rest

#### Diuresis

Significantly increasing the production of urine

#### Donation

Is the act of giving one's organs or tissue to someone else

#### Donor

One who gives of themselves

#### Edema

Abnormal accumulation of fluid in the body

#### Encephalopathy

Confused, fuzzy, or slowed thinking when the liver is not properly functioning

#### **End-Stage Organ Disease**

A disease that leads, ultimately, to functional failure of an organ. Some examples are emphysema (lungs), cardiomyopathy (heart) and polycystic kidney disease (kidneys)

#### End-stage renal disease (ESRD)

A very serious and life-threatening kidney disease that minorities suffer much more frequently than do Whites. ESRD is treatable with dialysis; however, dialysis is costly and can result in a poor quality of life for the patient. The preferred treatment of ESRD is kidney transplantation. Transplantation offers the patient "freedom" from dialysis to lead a more normal lifestyle and can successfully treat ESRD for many years

#### Exacerbation

An increase in activity of a disease, a relapse

Febrile Running a fever

**FK-506** Pre-approval designation for immunosuppressant drug Prograf

#### Fulminant

Happening very quickly and severely

#### Gene

A unit of genetic material (DNA). A gene may be defined in different ways as follows:

•Gene pattern of inheritance A segment of DNA that is transmitted, intact, from parent to offspring

•Gene structure A segment of DNA encoding a protein molecule

•Gene function A segment of DNA that contains the information for a specific function

•Gene therapy Treatment of genetic diseases by providing the correct or normal form of the abnormal gene causing a disease

#### Genetic disease

A disease due to an abnormal condition of one or more genes. While most diseases have some genetic component, the genetic disease is usually applied to those cases where one or two genes determine the disease, such as sickle cell anemia, Tay Sachs disease, and cystic fibrosis

#### Gastrointestinal

Relating to the stomach and intestines

#### Gastroenterologist

A physician trained in treating gastrointestinal disease

#### **Gingival hypertrophy**

Enlargement of the gums as a side effect of certain medications, especially cyclosporine. Managed with good oral hygiene

#### Glucose

A type of sugar in the blood

#### Graft

A transplanted tissue or organ

#### Graft failure

Absence of adequate function in a transplanted organ or tissue

#### **Graft survival rates**

The percentage of patients who have functioning grafts; graft survival rates are usually given for chronological landmarks (e.g., 1 year, 5 years)

#### Graft-versus-host disease

A life-threatening reaction in which transplanted immunocompetent cells attack the tissues of the recipient. This is most commonly seen in bone marrow transplantation but is also known to occur in transplantation of organs, such as the liver and the lung, that contain significant numbers of immunocompetent cells **Heart** 

A muscular organ that pumps blood through the body. The heart can be donated and transplanted

#### Heart valves

A tissue that prevents the back flow of blood into the heart. The heart valves can be donated and transplanted

#### Helper T cell

The specialized white blood cell that tells other parts of the immune system to combat infection or foreign material. A transplanted organ is foreign material

Hemorrhage Excessive bleeding

Hepatic Relating to the liver

Hepatitis Inflammation of the liver

**Hirsutism** Excessive increase in the hair growth

#### Histocompatibility testing

Determining how closely the HLA (or transplantation) antigens of the donor and recipient are matched and the likelihood that the recipient will reject the donor tissue

#### HLA Human Leukocyte Antigen

There are over 10,000 HLA types, with three major genetically controlled groups,: HLA-A, HLA-b and HLA-DR. In organ transplantation HLA-A types are important

#### Hypertension High blood pressure

#### **Immune Response**

The body's defense against things that are not normally part of the body, such as bacteria, viruses or transplanted organs or tissue

#### Immunocompetent

Capable of developing an immune response

#### Immunodeficiency

The lack of an adequate or normal immune response

#### Immunologic disease

A disease due to a dysfunction of the immune system. These are the autoimmune, allergic, and immunodeficiency diseases

#### Immune system

The body's natural defense mechanism against invasion by foreign bodies. In transplantation, the transplanted organ is considered a foreign body and the recipient's immune system will naturally want to defend against it through rejection of the organ

#### Immunosuppression

The artificial suppression of the immune response, usually through drugs, so that the body will not reject a transplanted organ or tissue. The drugs commonly used to suppress the immune system after transplantation include prednisone, azathioprine (Imuran), CellCept, cyclosporine, Prograf (FK506), OKT3, and ALG

#### Imuran

A drug commonly used after transplantation to suppress the immune system of the recipient and prevent rejection by the immune system of the transplanted organ or tissue. An "AZT family" drug. See cocktail

#### Immunosuppressive Drugs

Chemical agents that cause the human body not to produce antibodies that normally fight off foreign material in the body. The production of these antibodies needs to be suppressed in order to permit the acceptance of a donor organ by the recipient's body

#### Intestines

The portion of the digestive track extending from the stomach to the anus, consisting of upper and lower segments. The intestines can be donated and transplanted

Intravenous (IV)

Into a vein

#### Jaundice

Yellowing of the skin and eyes. A sign that the liver or bile duct system is not working properly

#### **Kidneys**

A pair of organs that maintain proper water and electrolyte balance, regulate acid-based concentration, and filter the blood of metabolic waste, which is excreted as urine. Kidneys can be donated and transplanted

#### Leukocyte

A white cell of the blood

#### LifeNet

Tissue procurement organization for Washington DC and Virginia

#### Living-related donor (LRD)

A "blood" relative who donates an organ, usually kidney, also partial livers, lungs, and pancreas lobes from LRDs are used for infants and small children when that is the appropriate transplant. Match The compatibility between recipient and donor. The more closely the donor and recipient "match" the greater the potential for a successful transplant

#### Meds

Used by recipients for their prescribed medications. Taking them at the appropriate time(s) is most important

#### NCAC

Nation's Capital Area Chapter, Initials often used to denote the local TRIO chapter

#### Noncompliance

Failure to follow the instructions of your health care providers such as not taking prescribed medications or not showing up for prescribed clinic visits

#### Neoral

Emulsified cyclosporine immunosuppressant drug manufactured by Sandoz

#### NSF

formerly initials for the National Sanitation Foundation. Now the organization is known as NSF International or NSF in their logo. Provides drinking water standards, and standards for associated equipment, including water purification filters

#### **Organ Preservation**

Organ preservation is used so that organs or tissues can be kept outside the body before being transplanted. The length of time varies per type of organ, the preservation fluid, and temperature

#### Organism

An individual, living thing

#### Orthotopic

A graft that is transplanted into its normal anatomical position (e.g. livers, hearts, lungs, and intestines)

#### OPO

Organ Procurement Organization

#### OPTN

Organ Procurement and Transplant Network

#### OTC

Over The Counter, non-prescription drugs or other medications

#### Pancreatic

Relating to the pancreas

#### Panel Reactive Antibody (PRA)

The percentage of cells from a panel of donors with which a potential recipient's blood serum reacts. The more antibodies in the recipient's blood, the higher the PRA. The higher the PRA, the less chance of getting a good crossmatch. Patients with a high PRA have priority on the waiting list

#### Patient

A person under a physician's care as a living donor, transplant candidate or recipient

#### Platelets

The smallest elements in the blood, needed to control bleeding

#### Prednisone

A steroid drug commonly used after transplantation to suppress the immune system of the recipient and prevent rejection of the transplanted organ or tissue. See cocktail

#### Peritonitis

Inflammation of the abdominal cavity due to intestinal perforation

#### Prognosis

The predicted or likely outcome

#### Prograf

A drug (Tacrolimus, FK-506) used after transplantation to suppress the immune system of the recipient and prevent rejection of the transplanted organ or tissue. Initially used for liver transplants, recently an option for all organ transplants

#### Protein

A type of organic compound that is one of the major components of cells and tissues

#### Protocol

The plan of treatment

#### Pulmonary

Relating to the lungs

#### Recipient

A person who has received an eye, organ or tissue transplant

#### Rejection

An event in which the immune system tries to fight off a transplanted organ or tissue by making antibodies. Immunosuppresive drugs help prevent rejection

#### Remission

Return to good health

#### Renal

Relating to the kidneys

#### RS-61443

Preapproval number assigned to CellCept. See CellCept

#### Sandimmune Cyclosporine

immunosuppressant drug manufactured by Sandoz

#### Sensitization

When there are antibodies in the blood of the potential recipient, usually because of pregnancy, blood transfusions or previous rejection of the organ transplant. Sensitization is measured by PRA. Highly sensitized patients are more likely to reject an organ transplant than unsensitized patients. See PRA

#### Steroids

A group of medications including Prednisone

#### Systolic

The top number of a blood pressure reading measuring when the heart is contracting

#### T cell

A white blood cell responsible for the body's immunity. T cells can destroy cells infected by viruses, graft cells, and other altered cells (e.g. cancer cells)

#### Tacrolimus

A drug (Prograf, FK-506) used after transplantation to suppress the immune system of the recipient and prevent rejection of the transplanted organ or tissue

#### Thoracic

Relating to the chest

#### Tissue

A term applied to actual tissue (skin), blood products, and bone marrow

#### **Tissue typing**

The examination of human lymphocyte antigens (HLA) in a patient; a blood test identifying genetic markers. Tissue typing is done for all kidney donors and recipients to determine a proper match

#### Tolerance

A state of immunologic non-responsiveness to one or more antigens

#### Tolerance, donor-specific

Tolerance of the donor's antigens by a transplant recipient

#### **Transplant patient**

A person waiting to receive an organ or tissue transplant or a person who has already received a transplant

#### **Transplantation**

Transfer of cells, tissues, or organs from one area of the body to another or from one organism to another

#### Transplantation, allogenic (allograft)

Transplantation between genetically different members of the same species. Nearly all organ and bone marrow transplants are allografts

#### Transplantation, autologous

Transplantation of an organism's own cells or tissues, autogous transplantation may be used to repair or replace damaged tissue; autologous bone marrow transplantation permits the usage of more severe and toxic cancer therapies by replacing bone marrow damaged by the treatment with marrow that was removed and stored prior to treatment

#### Transplantation, syngenic

Transplantation between genetically identical members of the same species (e.g., identical twins)

#### TRIO

Transplant Recipient's International Organization - membership includes candidates, recipients, their families, donor families, medical professionals and other interested parties

#### UNOS

United Network for Organ Sharing, the designated OPTN operator

#### Varices

Enlarged veins that develop in the esophagus and stomach

#### Vascular

Relating to blood vessels

#### Viatical

Viatical settlement allows one to sell their Life Insurance policy to obtain funds for medical care

#### WRTC

Washington Regional Transplant Consortium OPO

#### Xenographs

Organs transplanted from animals, ongoing research is a result of the tremendous shortage of donor organs

# Website Resources

### C.O.R.E (Center of Organ Recovery Education)

https://www.core.org/

### Donate Life America

https://www.donatelife.net

**Donate Life PA** https://www.donatelifepa.org/

Gift of Life https://www.donors1.org/

National Kidney Foundation https://www.kidney.org/

Pennsylvania Dept. of Education http://www.pde.state.pa.us/

Pennsylvania Department of Health-Organ Donation Awareness http://www.dsf.health.state.pa.us/health/site/default.asp

**TRIO** Provides organ donation reading and reviews https://www.trioweb.org/resources/book-reviews.html

**UNOS** (United Network for Organ Sharing) https://www.unos.org/

U.S. Department of Health and Human Services/FirstGov https://www.organdonor.gov

### Toolkits

**Organ and Tissue Donation Awareness (OTDA) Curriculum Toolkit 2011** https://www.iu13.org/images/uploads/documents/IS/OTDA/OTDA\_Classroom\_Toolkit\_2010\_11.pdf

**Donate Life America - Youth Educational Guide** https://www.donatelifetexas.org/wp-content/uploads/2015/02/Youth\_Educational\_Guide\_DLA\_111717.pdf

**RecycleYourself Classroom Tools** http://gorecycleyourself.com/classroom-tools/