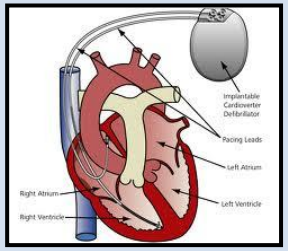
Medical Glossary

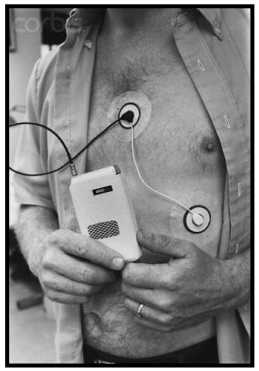
A resource tool created to assist in the planning of wishes.

Index

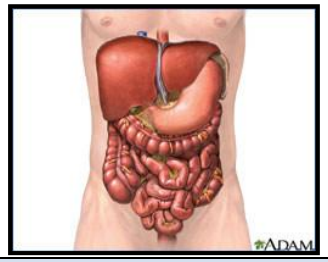
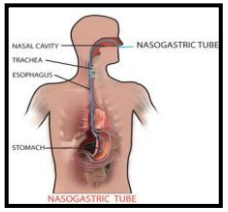
This glossary was compiled to be used as a resource in the planning of wishes. It contains many medical terms frequently encountered in this process. It is meant to be a living document, and it was created 9.13.10.

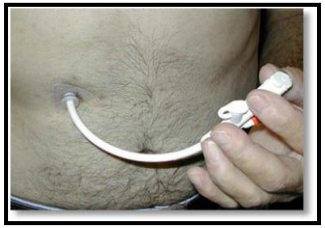
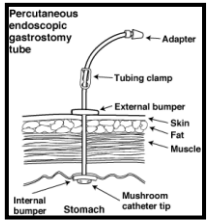
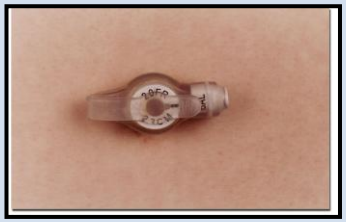
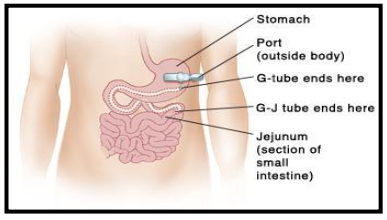
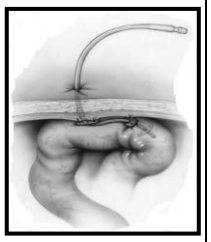
Cardiology

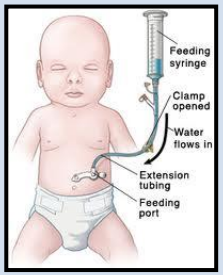
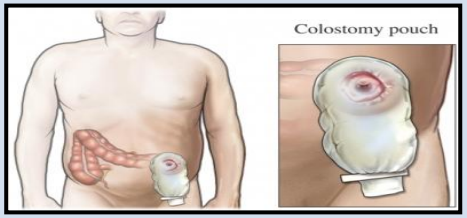
Medical Term	Definition	Image
Cardiology (Reference 1)	Cardiology is the study and treatment of disorders affecting the heart.	
Important Notes	*When travelling, families must inform TSA security prior to going through the detector to avoid potential disruption or failure in functionality. *Most implanted cardiac devices, including pacemakers and cardioverter defibrillators, are effectively shielded from interference from security devices. *The metal content of some of these devices, as well as certain orthopedic prostheses and braces, may trigger a security alarm. A physician's letter should be carried to avoid security difficulties.	Transportation Security Administration
Defibrillator (Reference 3)	A defibrillator is a device used to deliver a dose of electrical energy to the heart in order to restore the heart to its normal rhythm. It is used when a patient is experiencing a cardiac arrhythmia, ventricular fibrillation or pulseless ventricular tachycardia. The shock delivered to the heart depolarizes part of the heart muscle, allowing it to stop and reset. The reestablishment of a normal heart rate may be completed with the help of an implanted pacemaker. Defibrillators can be external, transvenous or implanted.	
Implantable Cardioverter Defibrillator (ICD)	An ICD is a defibrillator that is implanted inside a patient, consisting of a pulse generator implanted in a pouch (usually no larger than a wallet) underneath the skin in the chest or abdomen which is then attached to leads that run to the heart. These leads can be connected either inside the muscle or on the surface. The generator monitors the heart rhythm and delivers electrical shocks via the leads whenever it detects an abnormal rhythm. An ICD is used with patients at risk for recurrent, sustained ventricular tachycardia or fibrillation. It can deliver low-energy pulses like a pacemaker, but is also able to deliver high-energy pulses in life-threatening situations.	

Pacemaker	A pacemaker is a small device implanted in the chest or abdomen that is used to control abnormal heart rhythms through low-energy electrical pulses. Like an ICD, a pacemaker consists of a pulse generator and Patients with an irregular, high, or low heartbeat may require the assistance of this battery-powered device to maintain a regular rhythm. Pacemakers can be temporary or permanent. A pacemaker never emits the high-energy pulse an ICD can. If a pacemaker is only needed temporarily, a patient may receive an external pacemaker. For an external pacemaker the leads are inside the body while the pulse generator remains outside.	 
Compression Socks	Patients with poor blood circulation may be instructed to wear compression socks. These socks, which vary in length, exert pressure on the lower leg and foot and help keep blood from pooling. Movement of leg muscles with the added pressure from the sock helps to circulate blood throughout the entire leg. Some socks have graduated pressure, with the greatest amount of pressure being exerted near the foot/ankle. These socks are also referred to as circulation or support socks/stockings.	

Gastroenterology

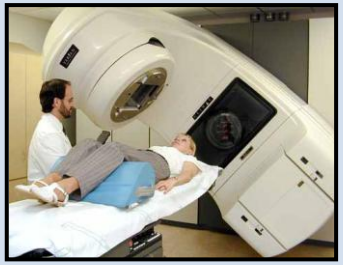
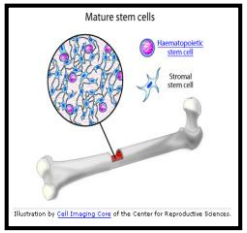
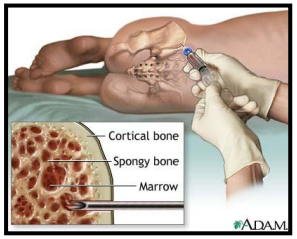
Medical Term	Definition	Image
Gastroenterology (Reference 1)	Gastroenterology is the medical specialty devoted to the study, diagnosis and treatment of disorders of the digestive system. These disorders may affect the esophagus, stomach, small intestine, large intestine (colon), rectum, liver, gallbladder or pancreas. Gastroenterology is popularly (and incorrectly) known as "GI," which stands for gastrointestinal.	
Feeding Tubes	Feeding tubes are used when a patient either cannot eat by mouth or requires more calories than he/she can consume. These tubes are used to deliver food and/or medication to the patient, and can also be used to vent/release air from the stomach. They are made from polyurethane or silicone, and come in a variety of diameters. Once the tube is in place, feedings can be done with a feeding pump or with a syringe. The three most common types of feeding tubes are the Nasogastric tube (NG tube), Gastrostomy tube (G tube), and Jejunal tube (J tube).	
Nasogastric Tube (NG Tube)	This tube is fed through the patient's nose and into his/her stomach. Feedings require a feeding pump. As it requires no surgery, it is the easiest to use. This is the tube of choice for patients who are not expected to require tube feeding for an extended period of time (i.e. less than three months); however, some patients do use it for longer.	 
Gastrostomy Tube (G Tube)	A gastrostomy tube (G tube) is a tube that leads directly into the patient's stomach through a gastrostomy (opening in the stomach). Because surgery is required, G tubes are only used for patients who will require tube feeding for a longer period of time. There are several types of G tubes, including the Percutaneous Endoscopic Gastrostomy tube (PEG tube) and the Mic Key Button. The device used depends on several factors, including the child's diagnosis, specific anatomy, and whether he/she has reflux problems.	

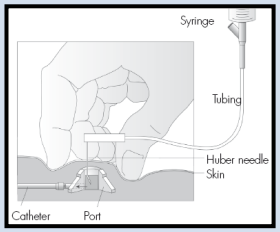
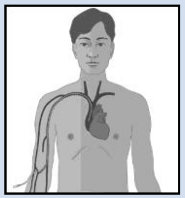
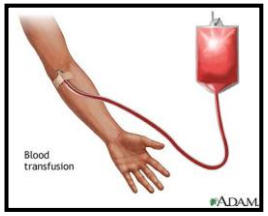
Percutaneous Endoscopic Gastrostomy Tube (PEG Tube)	This is a type of G tube that can be placed endoscopically or surgically through the abdomen. A six to twelve inch length of tubing protrudes from the abdomen and is kept closed with a capped plug. A feeding pump is used with this type of G-tube. This tube can be hidden under clothing.	 
Mic Key Button	Yet another type of G tube, this is a cap-like device that is connected to the tube inside the stomach that lies flat on the surface of the skin, eliminating the six to twelve inches of tubing left outside the body with a PEG tube. The button allows for the feeding tube to be connected only when needed. It is held in place with a small water-filled balloon under the skin and sealed closed with a cap between feedings. This device is less noticeable than the PEG tube.	 
Jejunal Tube (JT Tube)	This is a tube that leads to the jejunum (second part of the small intestine) in order to bypass the upper GI tract. JT tubes are often smaller in diameter than G tubes. This tube is a good option for patients with a high risk of aspiration or with severe reflux, as a JT tube decreases the risk of both. A gastrojejunal tube enters through the stomach but releases food directly into the jejunum. Similarly, a nasojejunal tube enters through the nose and does not release food until the jejunum.	 
Feedings	There are several types of feedings to choose from. The two most common are continuous drip and bolus feeding, and most patients use a combination of the two. If the patient is not at risk for aspiration, he/she may continue to consume some liquid and/or food by mouth.	
Continuous Drip Feeding	Over an extended time period feedings are given by a pump at a slow rate, usually over a period of eight to ten hours, but sometimes up to eighteen. A continuous feeding can be delivered either by gravity drip or with a feeding pump. Because a feeding pump ensures a steady flow, it is the recommended method. This method reduces the risk of aspiration and reflux, and can help control bowel movements for patients suffering from certain conditions such as short bowel syndrome.	 

Bolus Feeding	A larger amount of feeding is given three to eight times per day over a period of time ranging from fifteen minutes to one hour. A bolus feeding is often given slowly with a catheter tip syringe, often four to eight ounces over a period of twenty minutes. Like with continuous drip feedings, a bolus feeding can also be administered with a feeding pump, but with a larger amount of formula in a shorter amount of time. This method does not necessarily require a feeding pump and is comparable to a regular eating pattern.	 
Feeding Pumps & Equipment	In addition to the feeding pump itself, necessary equipment includes a feeding bag to hold the formula, tubing to connect the feeding bag to the feeding tube or button, gauze, syringes, catheter adapters, and tape. When an IV pole is not available to hold the feeding bag, it can be hung on a plant hook, nail, bedpost, lamp, or even a clothes hook in a car. There are many types of feeding pumps available to rent or purchase. Kangaroo Enteral Feeding Pump: This battery-powered pump is a favorite because it is small, lightweight, and portable.	 
Ostomy	An ostomy is an opening made in the abdominal wall for the excretion of waste from the bowel or bladder. There are two types: a colostomy and an ileostomy.	
Ileostomy	The ileum (last portion of the small intestine) is attached to the wall of the abdomen. Most types of ileostomies require an ileostomy bag made of plastic or latex to collect the waste. This bag can be hidden under clothing.	
Colostomy	Part of the colon is attached to the wall of the abdomen so that waste may be excreted. If the colostomy is in the left side, a pad that covers the opening may be sufficient; however, if it is in the right side, a colostomy bag made of plastic or latex is required to collect the waste. This bag can also be hidden under clothing.	

Hematology – Oncology

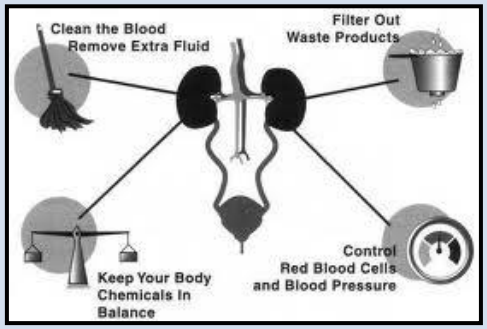
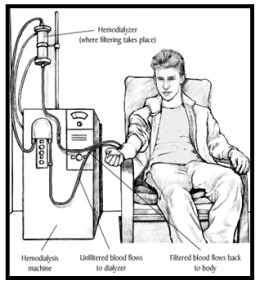
Medical Term	Definition	Image
Hematology – Oncology (Reference 1)	Hematology-oncology is the diagnosis, treatment and prevention of blood diseases (hematology) and cancer (oncology) and research into them. Hematology-oncology includes such diseases as sickle cell disease, leukemias and lymphomas. Hematology-oncology is abbreviated as hem-onc.	
Cancer Treatments	There are currently many treatment options for patients with cancer. The specific treatment plan for each patient depends on a variety of factors such as type of cancer, age and previous treatments given. Three common treatment options include: surgery, chemotherapy, radiation therapy and biological therapy. A patient may also require a bone marrow or stem cell transplant.	
Chemotherapy (Chemo) (Reference 4)	Chemo is one of many treatments available for patients with both cancerous and non-cancerous tumors. Chemo may be used to cure cancer, to control cancer (stop the growth of cells or kill some, but not all), and to manage symptoms (shrink tumors causing pressure or pain). Cancer cells are quickly-dividing cells; chemo drugs work by targeting any quickly-dividing cell in the body. Other quickly-dividing cells are the cells responsible for hair growth, and those that line the mouth and intestines. The destruction of these cells causes some of the well-known side-effects of chemo: hair thinning/loss and mouth sores. There are many different chemo drugs, and the one a patient receives is determined by the type, location, and size of the cancer and/or tumor. Chemo is given in many ways: oral (PO) -- taken by mouth (usually as pills); topical -- applied to the skin as a cream or lotion; intravenous (IV) -- infused through a vein; intramuscular (IM) -- injected into a muscle; subcutaneous (SQ) -- injected under the skin; intra-arterial -- injected into an artery; intrathecal -- infused into the central nervous system via the cerebrospinal fluid; intrapleural -- infused into the chest cavity; intraperitoneal -- infused into the abdominal cavity; intravesical -- infused into the bladder; and intralesional/intratumoral -- injected directly into the tumor.	  

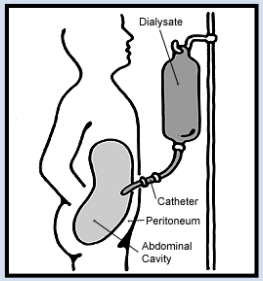
Radiation Therapy	Radiation therapy is another treatment available for cancer patients. Depending on the type of cancer, it may be used as a stand-alone treatment or in conjunction with others, such as chemotherapy or surgery. Radiation therapy, as the name would imply, relies on radiation – a form of energy released in waves or particles. This can be delivered to the body externally with machines, or internally with radioactive materials injected into the body. Because it can more directly target a tumor, it is more precise and less harsh than chemotherapy.	
Bone Marrow vs. Stem Cell Transplant (References 5, 6)	Bone marrow is a spongy material inside of bones where blood cells and platelets are manufactured. Stem cells are a unique type of cell found within the bone marrow and blood stream -- these cells can mature into red or white blood cells or platelets. A doctor may collect bone marrow and/or stem cells from the blood stream before starting his/her patient on a chemo regimen, in case the patient should need a transplant later, although bone marrow or stem cells can be transplanted from another donor. The transplant process involves high doses of chemo and/or radiation in order to kill off the diseased bone marrow and other cancer cells so that the healthy bone marrow and/or stem cells can be given through the bloodstream as a complete replacement. The difference between a bone marrow transplant and stem cell transplant is the place from where the healthy stem cells were harvested. When stem cells obtained from a donor's bone marrow are transplanted, it is called a bone marrow transplant, and when stem cells obtained from a donor's peripheral blood are transplanted, it is called a stem cell transplant. In either case, stem cells are transplanted, so a bone marrow transplant is always a stem cell transplant, but a stem cell transplant is not always a bone marrow transplant. These transplants have been effective in treating diseases including leukemias, anemias (i.e. aplastic and hemolytic), Hodgkin's and non-Hodgkin's lymphomas, and neuroblastoma.	  

Portocath, Subcutaneous Port (Port)	A port is used to deliver chemo or other drugs into the bloodstream. A thin plastic catheter is inserted under the skin and connects a vein above the heart with a small plastic disc (port). The port is visible as a small bump under the skin. Using a special needle (Huber needle), medication is injected into the port and transported through the catheter into the blood stream. Blood can also be drawn from the port for lab work. This catheter/port system offers an alternative to frequent needle sticks directly into the patient's veins.	 
Central Line	A Central Line is another option for the administration of chemo. A long, thin catheter is inserted into a large vein near the patient's heart, with a length of the tubing visible outside the body. This tube can have two or three lumens (different channels through the tube), allowing for the administration of multiple drugs at one time. When not in use, the tube(s) are capped or clamped. As with a port, this is an alternative to repeated needle sticks.	
Peripherally Inserted Central Catheter (PICC Line)	A PICC line is a type of Central Line. The catheter is inserted into a large vein near the patients elbow, and fed through until the tip is near the top of the heart. As with a Central Line inserted near the heart, a PICC line can be a single, double, or triple lumen. This line is also clearly visible outside the body.	 
Blood Transfusion	Blood transfusions are often necessary when a patient's treatment involves chemo or radiation, as these treatments can both cause anemia. A patient is said to be anemic when his/her number of red blood cells has dropped below a certain level. Red blood cells are responsible for transporting oxygen throughout the body, and having too few can leave a patient tired, out of breath, and ultimately affect organ function. Fortunately, this can easily be remedied with a blood transfusion. During a blood transfusion, a patient will receive a certain number of units of "healthy" blood from another individual, replenishing the patient's supply of red blood cells. Typically, 4-8 pints of blood are given through an IV drip in one transfusion, a process that takes a couple of hours.	 

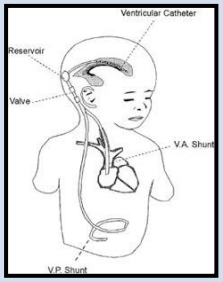
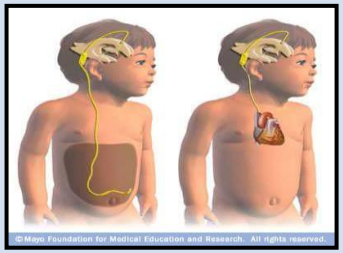
Platelet Transfusion	Platelets, which are manufactured in the bone marrow, are responsible for the clotting of blood. If a patient's number of platelets drops below a certain level -- often due to chemo or radiation -- he/she will likely be given a platelet transfusion. Patients are often given platelets before a lumbar puncture or bone marrow aspiration, as both procedures are likely to cause bleeding. As with a blood transfusion, platelets are given through an IV drip over a period of time. Typical, 1-2 units are given, which each take 15-30 minutes to transfuse. No blood is transfused, as platelets are able to be separated from blood cells.	

Nephrology

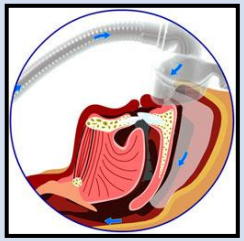
Medical Term	Definition	Image
Nephrology (Reference 1)	Nephrology is the art and science of the care of the kidney.	
Dialysis (Reference 6)	A patient needs to be on dialysis once his/her kidneys have failed, typically as a result of the progression of kidney disease. This treatment may be followed by a kidney transplant. The dialysis process replaces the functions of the kidneys: regulating the body's fluid balance by producing urine, filtering waste product from cellular processes throughout the body. There are two main types of dialysis: hemodialysis and peritoneal dialysis. Regardless of which type of dialysis a patient chooses, he/she must also follow a special diet, watch his/her fluid intake, and take vitamins and other medications to control blood pressure and keep everything in balance.	
Hemodialysis	Hemodialysis relies on a machine called a dialysis membrane to filter the patient's blood. The patient has a specialized plastic tube inserted in his/her body. When the tube is placed between an artery and vein in the patient's arm or leg it is called a gortex graft, and when the tube is used to connect an artery and vein in the arm, it is called a Cimino fistula. Once the graft or fistula is in place, needles are inserted so the blood may leave and re-enter the body. The blood is filters and it passes through the dialysis membrane. A patient generally goes to a hemodialysis unit three times a week for 2.5-4.5 hours.	 

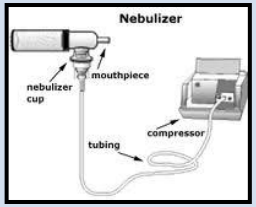
Peritoneal Dialysis	For peritoneal dialysis, a dialysis catheter (another type of specialized plastic tube) is inserted though the patient's abdominal wall into the abdominal cavity (peritoneal cavity). This process uses the abdominal cavity to filter the blood: a special fluid is flushed into the cavity, which filters waste and excess water from the blood through the walls of the intestines. The most common form of peritoneal dialysis is Continuous Ambulatory Peritoneal Dialysis (CPAD). The patient connects a bag of solution to the catheter and then empties it into the abdominal cavity so that it may filter the blood. After a few hours, he/she then drains this fluid back into the original bag, switches it with a new bag of solution (or simply re-fills the same bag with new fluid), and repeats the process. This must be done 4-5 times per day. Another form of peritoneal dialysis is Continuous Cyclic Peritoneal Dialysis (CCPD). A patient hooks up to a machine called a cycler every night, which cycles through 5-6 bags of fluid while the patient sleeps.	 

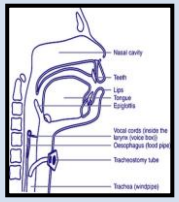
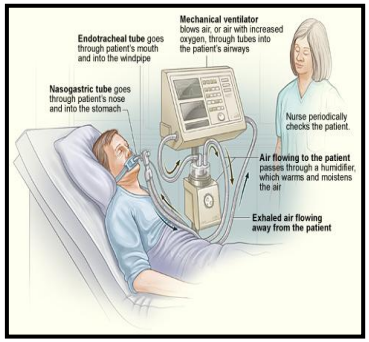
Neurology

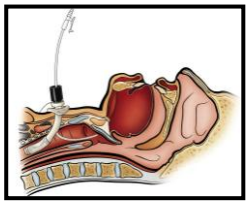
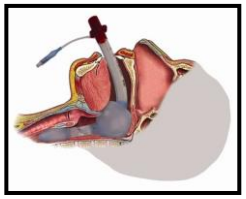
Medical Term	Definition	Image
Neurology (Reference 1)	Neurology is the medical specialty concerned with the diagnosis and treatment of disorders of the nervous system – the brain, the spinal cord and the nerves.	
Shunt (References 8, 9)	A shunt is a small tube inserted into the ventricles in a patient's brain used to redirect excess cerebrospinal fluid (CSF) to another place in the body. The shunt is a small flexible tube that is placed internally and is controlled by a valve. Shunts can last for up to 10 years, but patients usually have to replace their shunt more frequently. There are many types of shunts, which are named according to where they drain the CSF. The three most common are Ventriculo-Peritoneal (VP) Shunt (drains in the abdomen), Ventriculo-Pleural Shunt (drains in the pleural space around the lungs), and Ventriculo-Atrial Shunt (drains in the right atrium of the heart). If no other site is suitable for a shunt, CSF can be drained into the bladder or gallbladder.	 

Pulmonology

Medical Term	Definition	Image
Pulmonology (Reference 1)	Pulmonology, also known as Pulmonary medicine, is the branch of medicine that deals with the causes, diagnosis, prevention and treatment of diseases affecting the lungs.	
Continuous Positive Airway Pressure (CPAP)	CPAP is a type of noninvasive ventilation that helps keep the upper airways of the lungs open by providing a continuous flow of air delivered through a face mask. The air is pressurized by a machine, which delivers it to the face mask through long, plastic hosing. This air pressure forces the airway to stay open, allowing for regular breathing and the elimination of snoring. This is a method of respiratory ventilation used primarily in the treatment of sleep apnea, for which it was first developed. CPAP ventilation is also commonly used for critically ill patients in hospital with respiratory failure. In these patients, CPAP ventilation can prevent the need for tracheal intubation, or allow earlier extubation. Sometimes patients with neuromuscular diseases or congestive heart failure use this variety of ventilation as well.	 
Bi-level Positive Airway Pressure (BiPAP)	BiPAP is very similar to CPAP, the difference being that with BiPAP the doctor prescribes specific pressures that alternate: A higher pressure is used to breathe in (called inspiratory positive airway pressure, or IPAP) and a lower pressure is used when breathing out (called expiratory positive airway pressure, or EPAP). For COPD patients, BiPAP is the preferred method of treatment over CPAP because it's easier for these patients to exhale against lower pressure.	 

Cough-assist machine	This machine is used to help a patient clear mucus from his/her lungs. The machine forces air into the lungs when the patient inhales and sucks air out when the patient exhales, forcing the patient to cough. This may be used in combination with the Vest if a patient needs help loosening up the secretions in his/her lungs.	
High-Frequency Chest Wall Oscillation (Vest, Oscillator) (Reference 10)	The Vest is an Airway Clearance Technique (ACT) commonly used by patients with Cystic Fibrosis or other illnesses that lead to a buildup of mucus and secretions in the lungs. The patient wears an inflatable vest that is attached to a machine that vibrates it at high frequency. This causes the chest to vibrate, loosening the built-up mucus in the lungs. Every five minutes the patient stops the machine to remove the loose materials, either by coughing/huffing, or with the help of a cough-assist machine.	 
Nebulizer	A nebulizer changes medication from a liquid to a mist so that it can be more easily inhaled into the lungs. Nebulizers are particularly effective in delivering medications to infants and small children and to anyone who has difficulty using an inhaler. It is also convenient when a large dose of an inhaled medication is needed. Nebulizer therapy is often called a "breathing treatment." A variety of medications--both for immediate relief and maintenance of chronic symptoms--are available for use with a nebulizer. Nebulizers come in home (tabletop) and portable models. Home nebulizers are larger and must be plugged into an electrical outlet. Portable nebulizers run on batteries--either disposable or rechargeable--or can be plugged into a car's cigarette lighter. Smaller, portable units are slightly larger than a deck of cards, so they can be carried in a purse, briefcase, or backpack to be used whenever and wherever the patient needs them.	  
High-Humidity Compressor	A high-humidity compressor is a nebulizer compressor that delivers a large volume of airflow to provide for high humidity to patients with specific respiratory compromise, such as those patients with a tracheostomy.	 

Tracheostomy	A tracheostomy is a procedure during which an opening is created through the neck into the trachea. A tracheostomy tube (trach) is inserted to keep the hole open. This procedure may be used when the upper airways are blocked, when the airway has an excess amount of secretions and must be cleaned, or when the patient simply has a difficult time breathing on his/her own and needs the help of a ventilator.	 
Ventilator (Reference 11)	A ventilator is a machine that assists a patient with breathing. It can help patients who struggle to breathe to have deeper and more effective breaths, or it can breathe for patients that for whatever reason cannot do so on their own. Oxygen is delivered (and sometimes carbon monoxide removed) through a breathing tube. This tube can be inserted through the patient's nose or mouth, or trach if applicable. Another, less popular, type of ventilator uses a chest shell instead of breathing tubes. The machine creates and then releases a vacuum between the shell and the patient's chest, causing the lungs to expand from outside the body.	
Suction Unit (Machine)	This usually refers to a portable suction apparatus used for aspirating secretions, mucus and vomit from the mouth, nose and airways in children who have difficulty or who cannot cough or swallow. Electric suction units contain a vacuum pump (piston, diaphragm, or rotary vane), bacterial filter, vacuum gauge, trap for moisture (or any debris accidentally drawn into the mechanism), a reservoir for the aspirated material, and a suction catheter or nozzle. The main reservoir is usually a glass bottle with volume marks up the side and sometimes this has a float valve so that the vacuum is cut off before the bottle becomes full enough to allow the contents to be drawn into the pipework of the pumping mechanism. They may sometimes be described as high-grade or low-grade (or high and low flow rate) suction machines, which relates to the degree of vacuum achieved. High-grade suction machines are used for rapid aspiration of fluids and debris (such as vomit), whereas low-grade machines are used for post-operative wound drainage. Some suction pumps have battery power capability. Airway suction levels vary depending on age of patient; Infants 40-80 mmHg, Pediatric 60-100 mmHg, Adults 80-140 mmHg. For Gastric suctioning: 90 or 120 mmHg intermittent suction level.	

Suctioning	This is the removal of thick mucus and secretions when a child is not able to clear by coughing. Suctioning is done when the child wakes up in the morning and right before the child goes to bed in the evening. Suctioning is also done after any respiratory treatments. In addition, suctioning may be needed when a child has a moist cough, is unable to effectively clear secretions from the throat, or is having difficulty breathing or feels that he/she cannot get enough air. Two types of suctioning can be done: tracheostomy suctioning (removal of thick mucus and secretions from the trachea and lower airway) and oropharyngeal suctioning (removal of thick mucus and secretions from the nose, throat, and upper airway.	  
Suction Catheter	A long, narrow flexible tube used to remove tracheal secretions (mucus) from the tracheostomy tube or from the mouth, nose and airways to prevent aspiration. It has a suction tip with a large opening surrounded by a bulbous head that is designed to allow effective suction without damaging surrounding tissue. There are typically two types of suction-catheter systems: the open single-use catheter system, which must be changed daily and are useful for patients with acute respiratory issues, and the closed multiuse catheter system, which are beneficial for patients who require prolonged ventilator support. The size of the suction catheter depends on the size of the tracheostomy tube. Size 6, 8 or 10 French are typical sizes for neonatal and pediatric trach tubes. The larger the number, the larger the diameter of the suction catheter.	 
Home Oxygen Delivery Systems	When a patient cannot breathe independently or does not inspire enough oxygen with each breath, or has trouble inspiring or expiring, he/she may require the assistance of a home oxygen system. There are three main home oxygen delivery systems: an Oxygen Concentrator, a Liquid Oxygen System, and a High Pressure Oxygen System,	

Oxygen Concentrator	An oxygen concentrator is one of three basic home oxygen delivery systems. This machine separates oxygen from room air, thus providing oxygen therapy to a patient at substantially higher concentrations than would be possible on his/her own. Room air contains only 21% oxygen. Because it is so large, it is a non-ambulatory device.	 
Liquid Oxygen System	The second main home oxygen system is a liquid oxygen system. When chilled to about 300 degrees below zero, oxygen turns into a liquid. One molecule of liquid oxygen is about 1/800th the size of one molecule of gaseous oxygen. These units work by gradually letting some of the liquid oxygen warm up, turn to gas, and be used as a gas flowing from the main or portable unit. No electricity is required. The base units weigh more than 100 pounds and must be filled at the home with special equipment. Liquid oxygen systems consist of two distinct pieces of equipment: one is simply a smaller version of the other. Since the liquid oxygen is so cold, the base unit in the home is really a very large insulated bottle. The portable unit is a small insulated bottle that can be filled from the larger base unit. Usually, once a week a truck comes to the home to fill the base unit with liquid oxygen; then the user can use the oxygen at the liter flow prescribed by his or her physician. When the user needs to travel outside the home, a portable unit can be used. These last two to three times longer than tanks and are about half the weight. A portable unit will weigh about 8 pounds when full and last about 8 hours at a flow of 2 liters per minute.	  
High Pressure Oxygen System (Compressed Oxygen)	High pressure/compressed oxygen is the third main home oxygen delivery system. Oxygen is compressed and stored in large carbon steel or stainless steel cylinder. Liter flow is controlled by a dual pressure gauge and valve connector. There are smaller portable options available, some of which are made of aluminum.	 
Liter Flow	Liter flow refers to the amount of oxygen (measured in liters) given to a patient over a specific amount of time (usually minutes). The average person inhales about 1 liter with one deep breath in one second, and thus 60 liters per minute (60 LPM). As an individual changes the depth or frequency of his/her breaths, the individual's liter flow also fluctuates. Patients with respiratory failure or other illnesses affecting the lungs may require a greater amount of oxygen over the same amount of time to maintain their health, and so liter flow can be adjusted as needed.	

Oxygen Delivery Devices **(References 3, 12)**	There are four main devices used to transfer oxygen from the home oxygen delivery system to the patient. An important factor in determining the device used is the amount of oxygen (measured in %) the patient requires; room air contains 21% oxygen. An oxygen mask, made of plastic, silicone, or rubber, is placed over the patient's nose and mouth (oral nasal mask) or entire face (full-face mask). There are many types of masks, some of which will deliver up to 100% oxygen. A nasal cannula (NC) consists of plastic tubing which runs behind the patient's ears and two prongs that are inserted into the nostrils. Nasal cannulas carry up to 6 LPM (humidifiers are used with LPM greater than 4), and are used when a patient requires 24-44% oxygen. Oxygen can be delivered to a person with a trach by connecting the trach directly to the oxygen delivery system with tubing. A trach mask is similar to an oxygen mask, but differs in that it is placed over the patient's trach instead of face.	  
Pulse Oximeter (Pulse Ox)	This is a device that measures the amount of saturated hemoglobin in the tissue capillaries by transmitting a beam of light through the tissue to a receiver. This is noninvasive and a useful screening tool for determining basic respiratory function. This clip-like device may be used on the earlobe, toe or the fingertip. As the amount of saturated hemoglobin alters the wavelengths of the transmitted light, analysis of the received light is translated into a percentage of oxygen saturation (SO_2) of the blood. Also called *pulse ox.*	 

Therapy		
Medical Term	**Definition**	**Image**
Therapy (Reference 2)	Therapy is the treatment of disease or disorder as by some remedial, rehabilitation or curative process.	
Physical Therapy (PT)	Physical Therapy is treatment aimed to improve or restore one's physical function and fitness level. A physical therapist works with a patient to establish a treatment plan which almost always involves exercises such as weight lifting, walking, stretching and core exercises. A patient's treatment plan may also incorporate water activities, hot or cold treatments, ultrasound and electrical stimulation. Physical therapists can specialize in the following areas: muscles, joints, tendons, ligaments and bones; heart and blood vessels; lung problems and breathing; skin problems, including wounds and burns; cancer-related problems; and treatment for children, the elderly, and women. They work in many settings, including hospitals, clinics, nursing homes, and schools, and may also travel to a patient's home.	 
Occupational Therapy (OT)	Occupational Therapy is treatment that teaches patients the skills needed to live as independently as possible. This can be especially helpful for individuals with mental and or physical impairments that are either congenital or acquired as a result of a medical condition or traumatic event. Occupational therapy is beneficial for patients with both chronic and temporary conditions. An occupational therapist can offer assistance and training in many skills and activities, including: personal care, home skills, personal management, operating a motor vehicle, including using any adaptations, such as hand brakes, exercises and proper posture, training on using assistive devices, fitting splints or braces, and guidance for family members and caregivers.	 

Hoyer Lift	A Hoyer Lift is a piece of medical equipment used to assist a caregiver with transferring a physically-challenged patient from one place to another. It is most-often used in transferring the patient between his/her wheelchair and bed, but is also helpful in moving the patient into a bath or pool, and can be helpful in the restroom. The lift reduces the risk of injury to either the caregiver or the patient and also to maintain the patient's dignity. Lifts can be manual, power, or hydraulic.	 
Stander	A stander is a device used to help patients stand who are unable to do so on their own. The stander, which can be customized to the specific needs of the patient (i.e. headrest and straps), ensures that the patient maintains proper posture.	 
Compression Socks	Patients with poor blood circulation, sometimes as a result of being non-ambulatory, may be instructed to wear compression socks. These socks, which vary in length, exert pressure on the lower leg and foot and help keep blood from pooling. Movement of leg muscles with the added pressure from the sock helps to circulate blood throughout the entire leg. Some socks have graduated pressure, with the greatest amount of pressure being exerted near the foot/ankle. These socks are also referred to as circulation or support socks/stockings.	

Appendix

References*

1. **http://www.medterms.com**
2. **http://dictionary.reference.com**
3. **http://www.wikipedia.org**
4. **http://usiwebpool.cancer.org**
5. **http://www.ynhh.org**
6. **http://www.acor.org**
7. **http://www.medicinenet.com/dialysis**
8. **http://www.cincinnatichildrens.org**
9. **http://nhfonline.org**
10. **http://www.cff.org/treatments**
11. **http://www.nhlbi.nih.gov/health**
12. **http://www.docstoc.com**

**To visit any website, press and hold "Ctrl" while clicking on the link.*

Suggested Websites*

1. eMedicine
   http://emedicine.medscape.com
2. Mayo Clinic
   http://www.mayoclinic.com
3. National Institutes of Health (NIH)
   http://www.nih.gov
4. National Cancer Institute
   http://www.cancer.gov
5. WebMD
   http://www.webmd.com

**To visit any website, press and hold "Ctrl" while clicking on the link.*

Maintenance Instructions

As this is a tool intended to help in planning wishes, any suggestions for updates or changes are welcome and encouraged. Such requests should be emailed to the Medical Outreach Manager.