GLOSSARY FOR
BASIC CANCER TERMINOLOGY
IN THE NAVAJO LANGUAGE

A TRANSLATED GUIDE FOR CULTURALLY SENSITIVE EXPLANATIONS
FOR MEDICAL CLINICIANS, EDUCATORS, INTERPRETERS,
RESEARCHERS AND STUDENTS

Martha A. Austin-Garrison, Lead Translator
Edward R. Garrison, General Editor

DINÉ COLLEGE IN ASSOCIATION WITH MAYO CLINIC
FUNDED BY THE NATIONAL CANCER INSTITUTE
Photo Credits for the Front Cover


INTRODUCTION AND ACKNOWLEDGEMENTS

This “Navajo Cancer Glossary” represents the work of one of the major activities sustained under a P20 collaborative planning grant awarded to Diné College and Mayo Clinic by the Minority Institution / Cancer Center Partnership (MI/CCP) program of the National Cancer Institute. Established by an Act of Congress in 1968, Diné College is “The Institution of Higher Education of the Navajo Nation” and operates eight campuses across the 27,000 square miles of the Navajo Indian Reservation. Mayo Clinic partners included colleagues from both the Rochester, Minnesota and Scottsdale, Arizona campuses of Mayo Clinic.

Beginning in the Fall of 2006, Navajo Cancer Glossary “working group” meetings were held on nearly a monthly basis at the Shiprock, New Mexico campus of Diné College. The original thinking was that this resource would be focused for use among the Navajo public, but participating Navajo professionals advocated that a resource of this nature was also critically needed by clinicians and educators due to the facts that: (a.) there had never been a standardization and codification of cancer terminology in the Navajo language, and further that (b.) existing commonly used translations in the Navajo language, which had become entrenched after decades of use, were both inaccurate and misleading. The most notable example is that the most commonly used translation in Navajo for “cancer” is óód doo nádziihii or “the sore that does not heal.” This is not only technically inaccurate but it also tends to defeat the goals of screening and early detection and treatment, and tends to foster a fatalistic attitude that nothing can be done for the Navajo patient diagnosed with cancer.

The working group that has produced this “Navajo Cancer Glossary” was comprised mostly of Navajo health professionals employed either by the Navajo Area Indian Health Service (U. S. Public Health Service) or by the Navajo Division of Health of the Navajo Nation government (most notably the Navajo Nation Breast and Cervical Center Prevention Program, the Navajo Health Education Program and the Kayenta Public Health Nursing Program). As word of this work spread through the provider and health educator community, additional participants continued to join the working group for as long as the working group remained active. By 2009, meetings were being held on a more frequent basis, sometimes as many as three times per month, in a concerted effort to complete the Glossary. By the Fall of that year the last series of revisions were being entered into the working draft, and the document was being prepared for production and dissemination.

Among the Navajo professionals who participated in the working group that produced this “Navajo Cancer Glossary,” a group of ladies at the Northern Navajo Medical Center (the Indian Health Service hospital at Shiprock, New Mexico) took on a special sense of ownership and convened their own meetings (especially during the summers of 2007 and 2008) so as to report back to the larger group on their thoughts, as clinicians and health educators, regarding the clinical and community appropriateness of the various translations being considered for different terms. We owe an extra debt of gratitude to these “Five Famous Ladies” for their special contributions to this effort.
Major Contributors to the Working Group that Produced this “Navajo Cancer Glossary”

Northern Navajo Medical Center, Navajo Area Indian Health Service
   Susie John, MD, MPH, Pediatrician and Medical Officer at the Teen Life Center
   Carmelita Sorrelman, RN, MPH, Health Promotion / Disease Prevention Program
   Margaret Lee, BA, HP/DP Specialist, Health Promotion / Disease Prevention Program
   Winona N. Begay, MS, RN, CPUR, Patient Care Coordinator
   Ida C. Bradley, RN, BSN, Uranium Outreach and Case Manager and Clinic Coordinator
   for Radiation Exposure Screening and Education Program (RESEP)
   Marie Brown-Wagner, MD, Chief of Otolaryngology, Head and Neck Surgery

Navajo Nation Breast and Cervical Cancer Prevention Program
   Sally Ann Joe, Director
   Willa Mae Jones, Case Manager, Kayenta Service Unit

Navajo Nation Public Health Nursing Program
   Linda Cothron, RN, MS, ARNP, OCN, Dir. of Public Health Nursing, Kayenta Service Unit
   Ellen Choyou, SCHW, CNA, Inscription House Health Center, Kayenta Service Unit

Navajo Nation Health Education Program
   Laverne Lane, AA, Kayenta Service Unit

Southwest Research and Information Center, Albuquerque, New Mexico
   Sarah Henio-Adeky, Navajo Community Liaison and Sandy Ramone, Envir. Health Specialist

Fred Hutchinson Cancer Research Center, Seattle, Washington
   Teresa Garrett Hill (formerly Guthrie), RN, MN, Program Manager – Spirit of EAGLES,
   NCI’s Cancer Information Service, Northwest Region

Diné College
   Edward R. Garrison, PhD, MPH, Faculty and PI for the NCI grant at Diné College
   Mark C. Bauer, PhD, Faculty and Co-PI for the NCI grant at Diné College
   Martha A. Austin-Garrison, MA, Faculty in the Center for Diné Studies
   Frank Morgan, BS, Independent Consultant to Diné College

We began our work by consulting the “Cancer 101” curriculum which was previously developed by the Northwest Portland Area Indian Health Board in collaboration with Spirit of EAGLES and the National Cancer Institute’s Cancer Information Service – Northwest Region. At the end of each of the seven modules in this curriculum, a Glossary is presented that is focused on the content of that module. We aggregated all of these Glossary entries to form the beginning body of terms for our endeavor, and then added additional terms that we felt would be useful for a general purpose Glossary to serve the providers and public of the Navajo Nation community. We extend our appreciation and recognition for this previous work completed by the Northwest Portland Area Indian Health Board and their collaborators.

Special thanks to Linda Cothron and Teresa Garrett Hill for providing especially extensive contributions to the English texts of this Glossary.
**Preface**

This guide containing Navajo language translations of medical terminology for cancer is intended for clinical practitioners, medical interpreters, researchers and students. It is to be used with understanding and respect for the Navajo language. The Navajo language, as are all languages, is powerful. In the Navajo tradition, the spoken word is powerful and becomes a reality and therefore they say be mindful and careful of what you say. It is our responsibility to use these terminologies carefully.

Our elders teach us that we should never joke or tease each other about diseases and abnormal conditions that affect the body, mind, and spirit. Disease, diagnosis, treatment and medicines are to be handled with great care. These traditions and beliefs are the background to translation and interpretation in all cases.

Interpretations should be in the context of positive thinking, hope and compassion. Whenever possible, include the use of kinship terms. Using the Navajo language appropriately gives a person great joy, satisfaction, and sense of pride.

And Navajo people appreciate proper expression of concepts. Dominant societal concepts and terminology cannot be explained well by mere use of literal translations by looking at constructs from the dominant society’s perspective. An interpreter should also be familiar with the Navajo way of thinking and understanding. The Navajo people who live out there near the mountains and mesas are the greatest teachers of semantics and expressions. When you need help, rely on these people and they will show you categories of meaning, the “corn pollen” language, and ways to help a person with your words. Keep learning the language and how to use it in different situations.

– Frank Morgan, Consultant, July 2006

Health care providers who use this Glossary should please remember that English is a second language for many Navajos. Much of the information and terminology that appears in this Glossary is specialized and esoteric even for native English speakers. Navajos who speak English sometimes do not understand the intended meaning of oncology disease and oncology screening information that is shared in English by health care providers, and they may be reluctant to say that they do not understand. We request that when giving explanations or education on these sensitive topics, that all health care providers request their client to repeat back the understood information in the client’s own words.

This *Glossary for Basic Cancer Terminology in the Navajo Language* is the product of one of the activities supported through a P20 planning grant from the Minority Institution / Cancer Center Partnership (MI/CCP) program of the National Cancer Institute – Grant Number P20 CA119013 at Diné College and Grant Number P20 CA118774 at Mayo Clinic. We gratefully acknowledge this support and encouragement that we received which enabled us to provide this resource for the Diné (Navajo) people and for the health care providers who attend to their needs and interests.
The Basic Characteristics of Cancer Cells May be Described as Follows:

Ats’iis bitl’óól áát’eelgi át’é.
Ats’iis bitl’óól yichxóoh dóó ba’át’e’ haleeh, kót’íjhgo lahda:
Body cells, damaged, and, dangerous, becomes, when this happens, sometimes:

- doo hazhó’ó ahii’ hááhinooséeldá
  does not, very much, multiply/grow

- làhda atít’íjhgo doo béeåhózingóó dah dínísééh
  sometimes, injured, unknown direction, it grows

- làhda t’áá bít oochiiñ lèh
  sometimes, just, hereditary/you are born with it

- haniyéehgo na’nílt’ah yileeh
  growing into a big lump, difficulty, becomes

- doo aheelt’égóó nidahinisééh
  does not mature to become a normal cell

- binaagóó ats’iis bitl’óól hadaalt’éhígíí yaah a’í yileeh
  surrounding it, it takes the nutrients
  before the healthy cells have their share

- doo hazhó’ó nida’ahídlo’da
  they do not work together, they lose connections

- ats’iis bitl’óól hadaalt’éhígíí doo yídadinéélñáada yileeh
  they have no connections with the healthy cells

- ats’iis bitah nááná táhdida dah náádiniisééh
  it spreads to another area

To aid Navajo-speaking users of this Glossary, Navajo translations are shown in **brown**
and word-for-word **back-translations** into English are shown in **red**.
Adherence to Treatment Program – When a patient follows the instructions for treatment given by the health care provider, it is said that he or she “adheres” to the treatment which will help the patient become well again. In medical settings, use of the word “adherence” is replacing the less respectful use of the word “compliance.”

Nahodi’nitinígí bık’eh hojil’i’iğó.  Nidi’ninígí át’éego bık’ehgo i’il’i’i doo.
Receiving the instruction, following it, adhere to it. What you are told, follow the instruction.

• Lack of Adherence to Treatment Program – When a patient does not adhere to the treatment program, it means that the patient is not following through with taking the medicine (treatment) provided by the doctor to help the patient become well again. Many things could influence the behavior of the patient, such as barriers or challenges to care.

Nahodi’neestá’igií doo l’a’ bık’eh hojil’i’iğóó.
Háah i’doolnílíígií doo l’a’ bi’jil’i’iğóó éí doodago bích’i’ ni’ jíliiigo.
Receiving the instruction, not following some of it, adhere to it.
Receiving treatment, not following it through, or, hesitate on treatment.

Anesthesia – An anesthesia is a medicine that causes the patient not to feel pain or to not have pain. Some anesthesias make the patient temporarily unconscious or drowsy so that the patient may not remember what has happened.

Temporarily makes the body numb or unable to feel pain.
Local anesthesia – numbing only the area involved in the treatment
Regional anesthesia – The patient remains awake but usually will receive medication to help relax. Regional anesthesias interfere with the feeling in a part of the body larger than the spot where the treatment is going to take place, without causing the patient to become unconscious.

Azee’ bi lá haa e’etsihgo hats’íís doo anihda yileeh, doó neezgaiígóó hona’ani’sh, dódó l’a’ éí doo ajiniíhgóó hona’ani’sh lèh.
Medicine that causes, one’s body, does not feel it, not, aware of pain during surgery, one does not feel anything, then surgery is done.

Antibodies and Antigens – An antigen is a substance (usually a type of a protein) that causes a reaction of the immune system. Antigens are normally present on the surface of all cells, and help the body keep track of its own cells as well as cells (such as bacteria) that may have invaded the body. When the body detects an antigen that does not belong, such as on the surface of a bacterial cell, the body makes another protein called an antibody that attaches to that antigen so that the body can detect and attempt to destroy the cell where that antigen was found.

Ats’íís doo bá yá’át’ée’hígíí éí doodago atibidoolíílíígií bitah yileehgo éí hats’íís yee bits’áhoniýé’i’igií haídil’i’i. Ákót’i’i’hgo éí ats’ísíií bee bích’aáh naabaahíígíí áyi’il’i’i’i’hgo éí dah yi’yi’híl’óóh láhda díl’i’igaiíí gií’i né’jahgo deíldééh.
Antigen : Body, not good stuff, or what will harm it, comes into the body, that, one’s body, with it, immune system, marks it. When that happens, the body, antibodies, marks it, with it, sticks on, sometimes, white cell will destroy it.
Barriers to Care – (Barrier) – Something that gets in the way or obstructs or impedes. Something that separates or holds apart. Intolerance is a barrier to understanding.
   Binahji’ bik’izhdì’dootjìligii bich’ááh hólóonii.
   To understand it, obstruction, exists/is there.

Barium Enema – A liquid with barium (tiny metal particles) is put through the anus into the rectum and colon so that an x-ray can be taken. **Barium swallow** – the patient drinks a mixture that contains barium so that x-rays can be taken that will show the esophagus, stomach and small intestine. **An enema** is a substance that enables the doctor to be able to see an outline. A contrast medium (that will show up on an x-ray) is pushed through a tube into the rectum and x-rays are taken to look for places where an unusual growth may be present in that part of the intestine.
   Hach’í’i nitsxaazigíí biyi’dì bee yit’íjgo bighádildla’ biniiyé hach’í’i’ biih yikááh.
   Large intestines, inside it, with it, visible to see it, an x-ray it is done, reason for, one’s intestines, inner side, it is placed.

Basal Cells of the Skin – cells from the deepest of the five layers of the skin
   Hakágl biit’áahdi sikaadíigíí.
   One’s skin, at the bottom of it, that is spread out.

Behavior / Aggressiveness of Cancer – The manner in which the disease behaves. 
Aggressiveness – Hostile or destructive behavior or actions. One disease may be more or less aggressive than another.
   Ats’îíς bitl’ól dah díniisééh áádóó ba’át’e’ hóló yilechígíí hazhóó’ógo noosééel éí doodago tsxìjìgo ba’át’e’ hólóógo noosééel.
   Cells in the body that grow uncontrollably, among one’s body it works, very slowly, it grows, or, faster, that grows.

Benign Tumor – See the entry under “Tumor” on page 48 of this Glossary.

Biopsy – A biopsy is the removal and examination of a sample of flesh from a person to determine if a disease is present. This may be done by using surgery (cutting) or by using a needle to remove (withdraw) a small amount of the flesh from the area involved.
   Ats’îíς kóníshééhígo haalgishgo ëí doodago tsah bee haalts’ìhhgo dóó haalt’óodgo binahjì’ ats’îíς bohodiiit’i’ì gi naalkaah.
   Body, very small, cut out, or, needle with it, pinched out or sucked out, from it, body, affected are, examined in the lab.

- Excisional biopsy – surgical removal by cutting, as of a tumor or a portion of a structure or organ
   Hats’îíς biyi’di t’áadoo át’éégóó dinëesánígií altso nahgóó haalgish.
   One’s body, inside it, not in the right way/abnormal growth/tumor, all of it, out, cut away.

- Incisional biopsy – a cut into a body tissue (flesh) or organ (inside body part), especially one made during surgery. The purpose is to make an opening.
   Hats’îíς biyi’di doo bëhózingóó dinëesánígií
haashįį niłtsogo t’éí nahgóó haalgish dóó t’áá aq’át’éggo ál’įih.
One’s body, inside it, not known of its growth/abnormal growth,
to some amount/size, only, out, cut away/partial removal of tumor.

• **Needle biopsy** – removal of a sample of flesh for testing by withdrawing it through a needle or piece of equipment that pierces the skin or the surface of a body part and continues into the underneath flesh to be examined. This is done without causing the outside of the body to have a large cut. This may also be called “aspiration biopsy.”

Hats’iis bihodiit’i’igií tsah bee haalt’óodgo naalkaah.
One’s body, affected area, needle, by means of it, sucked out, examined in the lab.

• **Surgical biopsy** – In addition to needle biopsy, there are two types of surgical biopsy: excisional and incisional (which were described above).

Hats’iis bihodiit’i’igií ált’s’ísigo haalgish.
One’s body, affected area, small, cut out.

**Blood** – The blood is made up of **plasma** (which is the fluid or liquid portion of blood) along with several different kinds of blood cells that are carried in the blood. The plasma contains nutrients from the food that has been eaten, along with many other dissolved substances such as oxygen, carbon dioxide, hormones and antibodies. The plasma makes up about 55% of the volume of the blood. All of the different kinds of blood cells are made in the bone marrow.

Díl tó t’éí át’é dóó ats’iís biłl’óól bii’ hólóogo hatah nidaazlí.
Díl bitoo’ éí ch’iyáán jiyánígíí bitoo’ dóó nidadeez’élígií bii áltaahgo hatah nidaazlí.
Ahníí’ dóó biláahgo díl bitoo’ hadíł bitah hóló.
Ats’iís biłl’óól díl biyi’ígíí éí hawol biyi’di nihwiileeh.
Blood is mostly water, and, body cells, are in the blood, as it flows in the body.
Plasma, that, nutrients from the food, one eats, and, other dissolved substances, flows in the body. Over half, plasma, among the blood, exist.
Body cells in the plasma, that, in one’s marrow, inside, they are made.

• **Red Blood Cells** – Red blood cells are also called **erythrocytes**. When they pass through the lungs, they pick up oxygen from the fresh air that has been breathed in. They then carry this oxygen to all parts of the body. At the same time, they help pick up carbon dioxide from throughout the body and carry it to the lungs where it is breathed out. In a normal healthy person, red blood cells make up about 45% of the volume of the blood.

Red blood, inside it, body cells, exist. Red blood cells, that, good air (oxygen), the one you breathed in, picks it up. That lungs, inside it, flows throughout body.
Just about the same time, used up air (carbon dioxide), collected and carried, to the lungs, and, it is breathed out.
• **White Blood Cells**  –  White blood cells are also called leukocytes. There are five major kinds of white blood cells (one kind is called lymphocytes). They all help in protecting the body from bacteria, viruses and other organisms that sometimes get into the body and cause infections. Cancers of the white blood cells include leukemias and lymphomas. Altogether, the white blood cells and platelets (which help in making blood clots) make up less than 1% of the blood in a normal healthy person.

Bone Marrow  –  The bone marrow is the soft, fatty substance or tissue that fills the cavity (hollow area) in the inside of a bone. It contains fibers and cells that are needed by the body to make red blood cells and white blood cells, and to allow red blood cells and white blood cells to grow and mature.

Breast Cancer  –  Cancer of the breast tissue (flesh) that may start as a small tumor. Worldwide, it is the most common form of cancer in women. Because the breast is made up of identical type of flesh in males and females, breast cancer can also occur in men, but in men it happens very rarely – less than 1% of breast cancer cases).

Breast Self Examination (BSE)  –  A Breast Self Examination is when a woman checks her own breasts to detect any lumps that might indicate an abnormality in the breast tissue.

Clinical Breast Examination (CBE)  –  A Clinical Breast Examination is an annual breast examination performed by a health care provider.
Cancer – Cancer is the uncontrolled / undisciplined growth of some cells in the body. Cancer is actually a group of diseases (more than 100) that can be recognized because they all have the behavior of uncontrolled growth of cells resulting in the invasion of healthy flesh in the same area or throughout the body. Cancer cells show the unwanted behavior of growing directly into other types of nearby tissue (flesh) and also of spreading to other areas of the body (a process called metastasis) which makes it difficult for the other areas to function as they should.

- **Cancerous** – Relating to or affected with cancer, such as in the description of a “cancerous growth.” A growth that has cells that have cancer.
  
  Ats’iis bitl’oól dah diniişehir āadóó ba’àte’ höló yileeh.  
  Cells in the body that grow uncontrollably.

- **Cancerous Tumor** – A growth that contains cells that have cancer. The tumor is the growth itself, which may be a lump or extra flesh somewhere in or on the body.
  
  Hats’istahdi haa’ida dinéesáago, hatsi’ bii’ ni’alts’i’go  
  ats’iis bitl’oól dah diniişehir āadóó ba’àte’ höló yileeh.  
  Among one’s body/inside one’s body, somewhere, when it starts to grow, flesh, lump growth, cells in the body that grow uncontrollably.

*Cancers are divided into five main groups:*

Ats’iis bitl’oól dah diniişehir āadóó ba’àte’ höló yileehigii ashdla’ ál’aá áte’ego dah naazhjaa’:  
Cells in the body that grow uncontrollably, five, different, types, in groups:

- **Carcinoma** – A carcinoma is a cancer that begins in the skin and other “coverings” (epithelium). It is an unwanted spreading growth that comes from the flesh of the skin that tends to spread to other areas of the body. A carcinoma may begin growing in the skin or in the coverings and linings of most organs (inside body parts). Carcinomas are divided into two main subtypes which are named according to the type of cell where they start to grow: adeno<sub>carcinoma</sub>, which develops from the cells of a gland, and squamous, which refers to a cancer that begins in the flat cells that cover the surface of the skin, the mouth, the cervix, and several other body parts.
  
  Ats’iis bitl’oól dah diniişehir āadóó ba’àte’ höló yileehigii hakági  
  dóó hatsá siléii bik’idaasti’ígí biyi’ diniişehir.  
  Cells in the body that grow uncontrollably, one’s skin and internal organs, its covering, inside it grows.

- **Sarcoma** – A sarcoma is a cancer that begins in bone, fat, muscle, nerve, joint, blood vessel, or deep skin. It is a spreading cancer that grows from tissues (flesh)
that connect different parts of the body together, such as bones, tendons (which attach muscles to bones), cartilage (found in the joints and in other places), muscle and fat.

Cells in the body that grow uncontrollably, one’s bone, inside it, one’s fat, among it, one’s muscle, among it, one’s nerves one feels with, inside it, at one’s joints, in one’s blood vessels, or, deep inside one’s skin, it grows.

There are five basic types of Sarcoma. These are described in the Appendix.

- **Leukemia** – Cancer of white blood cells (which are formed in the bone marrow). There are different types of leukemias, but they all result in either a sudden or a long lasting cancer of the bone marrow in which uncontrolled production of white blood cells occurs and in which the person usually has anemia (a low number of red blood cells) and also has problems related to blood clotting and unusual enlarging of the lymph nodes, liver, and spleen.

- **Lymphoma** – Cancer that begins in lymph nodes. A lymphoma may also be called a malignant lymphoma which develops in the cells of the lymph tissue, which are collections of immune system cells (cells that fight disease and infection) that are found in the lymph nodes. Lymph nodes are located throughout the body but are located especially under the arms and in the groin. (See the several entries under “Lymphatic System” in this Glossary.)

- **Myeloma** – A myeloma is a cancer that originates in the white blood cells that are called “plasma cells.” These cells are made in the bone marrow.

  - **Multiple Myeloma** – Multiple myeloma is a myeloma cancer that is present in more than one location in the marrow of a bone or in more than one bone.
**Cancer Rates** – Cancer statistics are most often given either as a “rate” or as a “ratio.” These are mathematical calculations that are used to describe the frequencies of disease (such as cancer) that are occurring in a population, such as how many people out of a thousand people in a population might be expected to be at risk for a certain disease, or that actually have that disease.

Atsi’sbit‘ool dah dinisheeh aadoo ba’at’e’ holo yilehehii bila’ashdla’ii haashji neelaa’ yee yaah dahool’aaah.

Cells in the body that grow uncontrollably, five fingered people, so many of them, harms them with that disease.

**Cancer Screening** – Tests that are carefully provided to certain groups of people for the detection of early disease that has not yet caused symptoms of illness, such as women having breast exams and mammograms to check for early breast cancer.

Atsi’sbit‘ool dah dinisheeh aadoo ba’at’e’ holo yilehehii t’aah bitseedi bee adaah ahayago naho’dilkaah.

Cells in the body that grow uncontrollably, from it, prevention, one goes through lab/screening.

- **Colon** – Colonoscopy, Sigmoidoscopy, Fecal Occult Blood Test

  The colon is the portion of the large intestine that extends from the cecum (near the end of the small intestine) all the way to the rectum.

  - **Colonoscopy** – Colonoscopy is the examination of the entire large intestine (colon) using a small camera on a flexible tube that is brought in through the rectum. It allows the doctor to see the flesh inside the large intestine. If an area suspected to have disease is found, it also allows the doctor to remove a small part to examine it (biopsy). Colonoscopy is similar to but not the same as sigmoidoscopy. The difference between colonoscopy screening and sigmoidoscopy screening is related to which parts of the colon can be examined.

    Atsi’sbit‘ool dah dinisheeh aadoo ba’at’e’ holo yilehehii ha’ddees’iiji’go ach’iidil t’aah at’e biyi’di naalkaah. Bee dinoool’ijili biy di nidoolkahigii ach’iidil t’aah at’e doo bee ajichii’igi biyi’di neli’i’. Dihi binahji’ aldo’ ach’iidil la’ haalts’ihihgo naalkah.

    Cells in the body that grow uncontrollably, looking for it, large intestine, all of it, inside it, screening it. With it, one looks, and, instrument, large intestine, all of it, rectum, inside, it is looked at. This, with it, is also used, large intestine, part of it, pinched out/taken out, lab/they study it.

  - **Sigmoidoscopy** – Sigmoidoscopy is the examination of the large intestine from the rectum through the last or lower part of the colon (large intestine). This section is not difficult to reach with the equipment. The doctor uses a thin lighted tube and a little camera to see inside the colon and rectum and may decide to remove (cut out) one or more small pieces to do lab tests for cancer. Sigmoidoscopy is used for screening for colon and sigmoid cancer. Sigmoidoscopy is similar to but not the same as colonoscopy. Sigmoidoscopy only examines up to the sigmoid, which is the lowest part of the colon, while colonoscopy examines the entire large intestine.
Cells in the body that grow uncontrollably, looking for it, with it one sees, and instrument, rectum, extend into it. Large intestine, the lower end and, at the rectum, it is examined. The light enters and it takes pictures, inside the colon and rectum, it is examined. This, with it, also, that part examined, pinched out/taken out, lab/they study it.

- **Fecal Occult Blood Test (FOBT)** – Fecal occult blood is a term for hidden (unseen) blood that may be present in the feces. In medical services, a fecal occult blood test is a check for hidden (occult) blood in the stool (feces). If hidden blood is found, it means that the person is bleeding farther up in the intestine where it is more difficult to see.

(There is another longer description of FOBT on page 27 of this Glossary.)

- **Mammogram** – A mammogram is an x-ray of the breast.

(There is a more detailed description of mammogram on page 34 of this Glossary.)

- **Pap Test** – A Pap Test involves using a swab to remove cells from the opening of a woman’s cervix. The cells are then sent to the lab to be examined under the microscope to see if there are any abnormal (cancerous) cells that might be present.

- **Prostate Exam (Digital Rectal Exam)** – The male patient is placed in a position where the doctor can have access to the anus (rectum) and the patient is relaxed (lying on his side, somewhat curled up on the examination table). The doctor inserts a gloved and lubricated finger into the rectum through the anus and feels the insides to search for unusual growth (enlargement) of the prostate gland.
Prostate — The prostate is a part of the male reproductive (sexual) system. Its main function is to store until needed a clear fluid that carries sperm (semen) out of the body. A healthy human prostate is slightly larger than a walnut. It surrounds the urethra (the tube through which semen and urine come out of the body), just below the bladder (where urine is stored) and can be felt during a digital rectal exam. It is common for the prostate gland to get larger as a man gets older, but sometimes this enlargement results from cancer cells that have started to grow in the prostate gland.

PSA Test — The PSA (Prostate Specific Antigen) Test is a blood test that is used to detect the amount of a certain type of substance (antigen) that is dissolved in a man’s blood. This substance is made in a man’s prostate gland and is not present in women. If the PSA result is higher than normal, it may mean that the patient has a problem with his prostate gland, which could be prostate cancer or it could simply be that his prostate gland has become enlarged (called benign prostatic hyperplasia, or BPH). A high PSA level is commonly caused by enlargement of the prostate gland or by an infection or prostatitis (inflammation of the prostate), so a higher PSA test result may not always mean that a man has prostate cancer. However, it is important to monitor the PSA level in men, since prostate cancer may cause a high PSA level. The PSA Test is also used to monitor the status of disease or the possibility of recurrence of disease in men that have been previously treated for prostate cancer.

Antigen — An antigen is a substance (usually a type of a protein) that causes a reaction of the immune system. Antigens are normally present on the surface of all cells, and help the body keep track of its own cells as well as cells (such as bacteria) that may have invaded the body. When the body detects an antigen that does not belong, such as on the surface of a bacterial cell, the body makes another protein called an antibody that attaches to that antigen so that the body can detect and attempt to destroy the cell where that antigen was found.

Antibodies and Antigens” on page 5 of this Glossary.)
Cancer Survival – surviving any of the group of diseases known as cancer, usually stated as “5-year survival.” It is similar to a percentage, indicating what proportion of people who are treated for that type of cancer are likely to live for at least the next 5 years.

Ats’íis bitl’óól dah diniiséeh áádóó ba’át’e’ hóló yileehigii t’áá bii’ háá’iildéeh. Cells in the body that grow uncontrollably, from it, to survive.

- Improved Cancer Survival – Having a better chance of surviving cancer. Any person will have better chances of surviving cancer if they have adequate access to health care, including access to culturally appropriate cancer care, early detection of any cancer that may develop (such as by having recommended Mammograms, Pap Tests, Prostate Exams, etc.) and prompt treatment for any cancer that may be found in the body.

Ats’íis bitl’óól dah diniiséeh áádóó ba’át’e’ hóló yileehigii la’ háída bits’íistah diniiséeh áádóó bee bik’ihji’ na’anishgo yii’ háádoodáalgo át’e. Cells in the body that grow uncontrollably, someone, among their body, growth, and then, with it, working/treatment against it, one can survive from it.

Good ways that are known to improve cancer survival include:

- Receiving education / training
  Bee hóóne’go binahodi’niltin dóó hazhó’ó bik’izhdiiitáago. After being told about the illness, receive training and, able to understand the illness.

- Adhering to treatment
  Azee’ hazhó’ó chojool’íigo. Medicine, well, using it.

- Transportation to cancer treatment centers
  Azee’ál’i t’áá éi biniiyé bih nahaz’aágóó bee hodooot’ihigii hólógo. Hospital, for that, reason for, treatment centers, with it, transportation, available.

- Taking care of any other health conditions
  Aah dahaz’á la’ hainít’inigii aldó’ baa áhojilyá. Illness/health conditions, no, other, affecting one.

- Continuing to follow the path to recovery
  Hózhóogo náájoodáal doo biniiyé azee’ háah ál’íí dóó níjídziih, hadaaít’e níjísdli’i’ doo. In a beautiful way, one will live, reason for, medical treatment, recovery, getting well again.

- Living in harmony and having beliefs
  Hózhóogo iiná dóó hwe’oodla’ hóló. In a beautiful way, living, and using cultural belief.

- Get adequate rest.
  Háá’äyííh bee ádaa áhojilyá. Resting, with it, take care of self.

- Encouraging others
  Saad bee ha’ahóniinii bee yájílti’i. Words of encouragement, with it, one talks.
Cancer Treatment – Medical treatment of the cancer itself or management of the symptoms that result either (a.) from the cancer or (b.) from effects of the treatment. Symptoms that result from the cancer may include nausea, vomiting, diarrhea or pain. Symptoms that result from the treatment may also include nausea, vomiting, diarrhea or pain, as well as other effects such as loss of hair.

Ats’ís bitl’óól dah díníséech áádóó ba’át’e’ hóló yilehígígí bik’ihji’ adinishgo bits’áádóó hatah haashíh hósínígígí eë jíjkwíh, níjíkwíh, hachaan tógo haghánílí eë doodago jidiníh leh. Hatsíí’ dó’ bët’ood doo.

Cells in the body that grow uncontrollably, working against it or management of the symptoms, from it, nausea, vomiting, diarrhea, or pain. Loss of hair.

- Symptom Management (Managing the Effects of Treatment)
  - Azee’ háah ál’ihihipí aldó’ ba’át’e’ dahóló. Laháah doó akóhósinda leh. Treatments, one gets, also, have negative side effects. Sometimes, one does not feel well from it.

- Goal of Treatment – The goal of cancer treatment is to restore the body to a healthy condition with no remaining disease being present. For a cancer patient, sometimes the goal of treatment will be to control the disease so that the patient does not have continuing illness or the symptoms of illness, even though the cancer might still be present in the body.
  - Yá’át’éch nízh doodleeé biniiyé háah é’él’ihj. Laháah azee’ háah ál’íggo níjídíh ndí hatsíís biyi’dí t’áá hólónígígí biniinaa t’áá aháah náhodi’nél’ihj doo. Well/good, to become, reason for, getting treatment. Sometimes, getting medical treatment, getting well, but, in his/her body, it is still in the body, because of it, regular check ups.

- Biological Therapy (or Immunotherapy) – The use of natural biological materials to strengthen the body’s own cancer-fighting abilities. Substances from the body’s immune system may be used to “teach” the body to fight the cancer (similar to the way that vaccines work). These are given to the patient in the form of medicine. (See the separate entries for “Interferon” and “Interleukin-2,” both of which are examples of biological therapy or “biological response modifiers.”)
  - Hatsíís t’áá bí yee ááaa áhályánííí dóó bee bits’áhóníyéé’gi bidziilgo ál’íihgo bee ats’íís bitl’óól dah díníséech áádóó ba’át’e’ hóló yilehígígí yik’ihji’ naalnish. One’s body, just, itself, with it, taking care of, and one’s defense, its strength, keeping it, with it, cells in the body that grow uncontrollably, against it, works.

- Brachytherapy – Brachytherapy is a form of radiation treatment in which a radioactive source (seeds or implants) is placed inside or next to the area that needs treatment. (See also the entry for “Radiation Therapy.”)
  - Ats’íís bitl’óól dah díníséech áádóó ba’át’e’ hóló yilehígígí sháñìdiin bee adilídígígí ilástsií’ nahalingo áádaalts’íísí biihghahgí níít’ááh/níí’nílda. Cells in the body that grow uncontrollably, radioactive / x-ray, small seed, that small, next to, is placed/are placed.
**Chemotherapy** – Chemotherapy is the use of medications to treat (or work against) the disease. It refers primarily to medicines used to treat cancer – medicines that are poisonous to the cancer cells. The purpose of these medicines is to kill the cancer while causing as little harm as possible to the patient. Chemotherapy medicines can be in the form of pills, liquids that are taken by mouth or given into the veins, or they can be creams that are applied to the skin. There are different side effects from the medications depending on the ways that they work. When cells grow, they go through different growth periods (or cycles), just like people. Some of the chemotherapy medicines act during one specific part of the growth period or cycle more than in others. Many patients receive more than one medicine so that the medicines can attack the cancer in several different periods of the cancer cell growth cycle. Chemotherapy medicines are classified according to the ways that they work.

Azee’ hwiih nákáahgo ats’iis bitl’óól dah dinísééh áádóó ba’át’e’ hóló yileehígíi bee naatseed. La’ azee’ yildeel, la’ daadalá, la’ bił ha’a’e’etsíh, dóó la’ bee ádíltláhi ádaat’è. Ats’iis bitl’óól dah dinísééh áádóó ba’át’e’ hóló yileehígíi t’áá af’ ahát’éege bik’ihji’ na’anish. Medicine, into one’s inside, pouring, cells in the body that grow uncontrollably, with it, it is killed/destroyed. Some medicines are pills, some you drink it, some given as shots, and some apply like creams. The cells, different effects, the medications, works against it.

- **Adjuvant Chemotherapy** – Medicines that are used to work against cancer. An “adjuvant” therapy is an “additional” therapy that aids another therapy. Adjuvant therapy means giving a second treatment after the primary treatment, such as radiation or chemotherapy that is given after the surgery.

Azee’ ats’iis bitl’óól dah dinísééh áádóó ba’át’e’ hóló yileehígíi bee bik’ihji’ na’anish. Díí azee’ ats’iis bitl’óól dah dinísééh áádóó ba’át’e’ hóló yileehígíi bik’ihji’ adinishgo aldó’ choo’í. Medicine, that is used to work against, cells in the body that grow uncontrollably. This medicine, cells in the body that grow uncontrollably, that is used to work against, also, used.

- **Neo-Adjuvant Therapy** – Neo-adjuvant therapy is treatment that is given before the main or “primary” treatment but with the primary treatment still being necessary. For example, chemotherapy that is given before surgical removal of a breast cancer would be considered “neo-adjuvant chemotherapy.” Sometimes both adjuvant and neo-adjuvant therapy are used, in which case they would be given both before and after the primary (main) cancer treatment. For example: if a patient has surgery, followed by chemotherapy, followed by radiation, then the chemotherapy would be considered to be the primary treatment, the surgery would be considered neo-adjuvant (before) and the radiation would be considered adjuvant (after). Examples of neo-adjuvant therapy include chemotherapy, radiation therapy and hormone therapy. The goal of all of these treatments is still to kill the cancer.

T’ah doo iiyisíí hona’nishgóó t’áá bitséedi azee’ haȟ ádoolníił.
Chemotherapy Classifications: Types of Chemotherapy Medicines (Drugs)
The chemicals that are used to treat different types of cancer work in different ways and they also have different effects on the body of the person being treated. The healthcare provider should explain these different types of medicines and their effects before beginning to treat the patient with one of these medicines.

A classification of types of Chemotherapy Medicines is presented in the Appendix.

The Goals of Chemotherapy are to cure the cancer, control the disease, or control the effects of the symptoms of the disease, while causing as little damage as possible to the normal healthy cells in the person’s body.

- **Cryosurgery / Cryotherapy** – This is the use of extremely cold temperatures to freeze and thereby destroy cancer on a certain area of the body, so that the cancer can be safely removed. Cryosurgery is often used to remove some types of skin cancer.
  
- **Hormone Therapy** – Hormone therapy involves the treatment of diseases with hormones taken from endocrine glands (thyroid, pituitary, pineal and adrenal) or by using substances that increase the normal hormone effects. Some cancers are sensitive to hormones in the body. The hormones can be used to change the environment inside the body where the cancer is growing, causing the cancer to be weakened or even to become unable to continue to grow. The doctor may give a medicine that stops the production of certain hormones or prevents the hormones from working in the normal way.
Alohk’e’ dóó akááž dah yikahjí bitoo’ éi hayaayáákáaz, hatsiigha’ biyí’di hakááž, dóó hatsá’ ásk’azhi bikáá’gi hakááž bitoo’ éi alohk’e’ dóó akááž dah yikahjí bitoo’ niljíigo éi bee ts’íhniidóóh dóó naalñiib bik’ihji’ na’ananish. Alohk’e’ dóó akááž dah yikahjí bitoo’ ats’ísí bitl’óól dah dínísééh áádóó ba’át’e’ hóló yileehígíí la’yik’ihji’ naalnísh. Alohk’e’ dóó akááž bitoo’ dah yikahjí bitoo’ lahda ats’ísí bitl’óól dah dínísééh áádóó ba’át’e’ hóló yileehígíí doo hináágóó ayííl’ijh, lahda doo naníse’ góó ayííl’ijh. Pancreas and lymph nodes/hormones gland, its juice/fluid, that, thyroid, pituitary, pineal and adrenal gland, it is, with it, diseases, against, it works. Cells in the body that grow uncontrollably, hormones, works against it. Pancreas and lymph nodes/hormones, this, cells in the body that grow uncontrollably, weakened it, sometimes, does not grow on.

- Tamoxifen — Tamoxifen is a medicine that is used to treat certain types of breast cancer in both women and men. It is also used to prevent breast cancer in women who have had ductal carcinoma in situ (abnormal cells in the ducts of the breast) and are at a high risk of developing breast cancer. Tamoxifen blocks the effects of the hormone estrogen in the breast. Tamoxifen belongs to the family of drugs called anti-estrogens. It is also called tamoxifen citrate and Nolvadex™.

- Surgery — Surgery can also be used in one form of hormone therapy. The surgeon may remove organs such as the ovaries or testicles that make hormones. The side effects of hormone therapy depend on the type of therapy. In women, the side effects may include weight gain, hot flashes, nausea and other changes similar to those that usually occur during menopause. In men, hormone therapy may cause impotence, loss of sexual desire and breast growth or tenderness.

- Radiation Therapy — Radiation therapy is usually a local treatment (given to a small portion or area of the body). A precise dose of radiation is targeted to a specific tumor or area of the body to destroy the cancer cells while not harming the surrounding flesh. It is like a strong x-ray that is used to get rid of the cancer. Bee aghá’deeldlaad biziiigíí ats’ísí bitl’óól dah dínísééh áádóó ba’át’e’ hóló yileehígíí bee didlidgo naatseed. A strong x-ray, cells in the body that grow uncontrollably, with it, it is burned and destroyed.

- Surgery — Surgery is a procedure during which the body is cut to remove or repair something. This may also be done to find out if cancer is present in the body or if it has spread. Hona’anishgo ats’ísí haa’ída baah dahoo’a’iigíí nahgóó haalqish éí doodoo naalgizhgo bee hasht’e nál’í. Lahda ats’ísí bitl’óól dah dínísééh áádóó ba’át’e’ hóló yileehígíí haanizahgóó náás dínésánigíí biniiyé na’algizh doo. Operation, body, something goes wrong with it, cut it out, or surgery, to repair something. Sometimes, cells in the body that grow uncontrollably, how far it has grown, reason for, surgery is done.
Laparoscopic surgery – The tumor can be seen through a small camera attached to a tube and then inserted into the body through a very small cut. If a cancerous growth is seen, a small amount of the flesh where the cancer is found can be cut out and removed, as in a biopsy. This method can be used to examine and to rule out the possibility that the cancer has spread to other organs. It only requires a small cut in the skin and avoids the need for a large surgical wound.

Treatment

Local Treatment – Local treatment is a treatment or medicine that is applied only to the area of the body where the disease is present.

Systemic Treatment – Systemic treatment is a treatment that will reach and affect the entire body even if the disease cannot be seen everywhere.

Carcinogen – Something such as cigarette smoke, uranium, or other substances (such as certain kinds of chemicals) that may cause cells to change so that they grow and multiply uncontrollably. Carcinogens may cause them to change into cells which become diseased and develop into cancer.

Cell – Cells are the basic “units” of life or “building blocks” of all living things. Some living things are made up of only one cell, such as a bacterial cell. The human body is made up of many millions of cells. We grow new cells all the time. Some cells normally die every day and are removed from our bodies. Each cell is supposed to develop or “grow up” into a particular kind of cell, such as a muscle cell, a nerve cell, or a bone cell. Cancer cells grow uncontrollably and do not “grow up” to become a normal kind of a cell in the body.
Body, cells, all of it, are alive, with it, it grows.
Some, life, its body cells, only one, exist, with it, there is life, as bacteria, it is like that. People, they have millions, over, their body cells, have. Body cells, multiply by growing all the time, every day, skin and blood, and some body cells, when all used up, die, every day, and they are removed from the body. These body cells, all of it, are growing, some are muscle cells, some nerve cells, or bone cells, they become. Cancer cells, do not “grow up,” are not normal cells. Body, with it, it is made of (cells).

- **Abnormal Cell Growth** – (Abnormality) – Cells may become damaged as a result of the effects of certain chemicals or from radiation or other causes. If the cell is not able to repair itself, then it should die (called “apoptosis”) before it reproduces to make more cells that have the same damage. Abnormal cells are not able to repair themselves but continue to reproduce and make more damaged cells that may result in cancer. “Abnormal” means that the cells are out of control, undisiplined. Ats’ís bitl’ólól dah dínisëéh dóó t’áadoo le’é ba’át’e’ ádaat’éíi éi doodago shá bits’áádóó bits’áziiligí átídeile’. Áko doo t’áá bi hadaaalt’é nádleehgógó éí t’óó níadhiniñehí. Ats’ís bitl’ólól doo hadaaalt’éhígí’é yíchóohgo doo hadaaalt’é nádleehda, ndí t’óó bóhólnihígógó hááhinooséëh, éí la’ ats’ís bitl’ólól dah dínisëéh áádóó ba’át’e’ hóló yileeh. Body cells, grows, and something, chemical that kind, or, sun rays, radiation, damages them. Thus, not, by itself, repair to healthy one, that, dies. Body cells, abnormal ones, that, damaged, not able to repair itself, but, grows out of control, that, sometimes, becomes, cells in the body that grow uncontrollably.

- **Death of Cells** – Death of cells results when cells are not able to continue the normal life cycle of cells. They cannot continue to grow and make more cells. Many of the cells in the body normally reach “old age” and die so that they can be replaced by new cells. Cancer cells lose the ability to reach “old age” and so they just continue growing uncontrollably but they do not “grow up” to become a normal kind of a cell in the body. Ats’ís bitl’ólól ániidígíí t’áá álahji’ náhoodleel. Altso binaanish la’ dayiilaañíigí éí daníñé. Ats’ís bitl’ólól dah dínisëéh áádóó ba’át’e’ hóló yileehgíí éí doo níadhiniñehída, t’áá bóhólnihígógó hadíniséëh. Body, cell, new ones, all the time, they are made/grow. The ones that have completed their work, they die. Cells in the body that grow uncontrollably, do not die, they grow uncontrollably.
Cancer cells do not die, but just keep growing uncontrollably.

• **Dividing Cells** – Dividing cells are living cells that grow (multiply) to make more new cells in the body. This is a normal process that occurs inside the body’s tissues and organs. During this process, cells may undergo changes (damages) that cause the new cells to act or “grow” differently (or uncontrollably). These changes in the cells may lead to cancer.

• **Poorly Differentiated Cells** – All cells in the body are supposed to “grow up” to become a specific type of mature cell, such as a skin cell or a blood cell or a liver cell or a nerve cell. One of the characteristics of cancer cells is that they do not “grow up” or differentiate properly to become a specific kind of normal mature cell, but instead they remain as undeveloped or immature poorly differentiated cells. Poorly differentiated cells are often cancer tumor cells that may only slightly resemble the normal tissue that they came from. This type of tumor may tend to be more aggressive in how it “behaves” or spreads and it may be more difficult to treat or cure. This is because the cells have become very unlike the normal original cells due to the effects of the disease on them (that is, they have become poorly differentiated). The presence and condition of poorly differentiated cells may tell the doctor more about the aggressiveness of the disease.

• **Well Differentiated Cells** – Well differentiated cells are cells that have “grown up” or matured to become a normal type of cell in the body. Cancer cells do not mature into normal “well differentiated” cells, but become “poorly differentiated.” When cells from a biopsy are examined under a microscope, the doctor who examines those cells is looking to see if the cells are no longer “well differentiated” but are instead
becoming “poorly differentiated,” which would be an indication of the cells becoming cancer cells.

Cell Migration – When cells move from one area of the body to another, it is called cell migration. They can be carried in the blood through blood vessels or in the lymph through the lymph system. This is a method that cancer cells use to spread from one area of the body to another. When cancer cells spread in this manner, the process is called metastasis. (See also the description of “Metastasis” on page 35 of this Glossary.)

Cervical Cancer – Cervical cancer is uncontrolled growth of abnormal cells in the cervix. This is also called cancer of the cervix. The cervix is the opening that provides the passageway into the uterus (womb). It is also known as the birth canal, since the baby passes through the cervix on the way out of a woman’s body during birth. Cancer that starts to grow here can be detected in an early, curable stage by the Pap Test. (See also the description of “Pap Test” under “Cancer Screening” on page 12 of this Glossary.)

Clinical Trials – Clinical trials are research tests that are done to evaluate and decide if certain treatments are effective and safe when used to treat a disease. There are three primary phases or types of clinical trials for medications, with an additional fourth phase for follow-up studies after the new treatment has already been approved. Most effective treatment, or, effective medicine, carefully, tests/studies.

A description of the four phases of Clinical Trials is provided in the Appendix.

Colonoscopy – Colonoscopy is the examination of the large intestine (also called the colon) using a small camera on a flexible tube that is brought in through the rectum. It allows the doctor to see the flesh inside the intestine. If an area suspected to have disease is found, it also allows the doctor to remove a small part to examine it (a biopsy). Colonoscopy is similar to
but is not the same as sigmoidoscopy. The difference between colonoscopy screening and sigmoidoscopy screening is related to which parts of the colon can be examined. 

(There is more information on both Colonoscopy and Sigmoidoscopy in the section on “Cancer Screening” in this Glossary.)

Atsʼíís bitłʼóól dah diníiséeh áadóó baʼát’eʼ hóló yileehigíí há’déest’iiʼ go hachʼíidiil biyiʼdi naalkaah. Bee dinóoolʼiįįgíí dóó bee nidooolkahigíí achʼíidiil biib yiltʼihgo bee achʼíidiil dóó bee ajichiʼigíí biyiʼdi bee nélʼį. Achʼíidiil laʼ haaltsʼihgo naalkah.

Cells in the body that grow uncontrollably, one looks for it, large intestine, inside it, lab/screening it. With it, one looks/instrument, large intestine, inside it, extending it, with it, large intestine, and, rectum, it is studied, inside it. Large intestine, part of it, pinched out, examined in the lab.

**Colony-Stimulating Factors** — Colony stimulating factors are medicines that stimulate the cells in the bone marrow to multiply and mature at a faster rate. When a person receives cancer treatment they may experience a decrease in the number of red cells, white cells, and platelets in the blood. Colony stimulating factors cause the body to make more of these blood cells at a faster rate than normally and helps the person recover more quickly.

Azeeʼ laʼ éi hawol biyiʼdi tsxįįigo hatsʼíís bitłʼóól laʼigo ahiiʼ háahinooséelgo áyiilʼįįh. Medicine, that, oneʼs marrow, stimulate faster, cells, growth in multiples, stimulates/makes.

**Colorectal Cancer** — Colorectal cancer is cancer of the large intestine, often recognized by a change in bowel habits and the passing of blood (melena) in the bowel movement. The blood may not be easily visible but may be noticed as causing a black tarry stool (feces).

Atsʼíís bitłʼóól dah diníiséeh áadóó baʼát’eʼ hóló yileehigíí achʼíidiil éi doodago bee ajichiʼigíí biib diníséeh.

Cells in the body that grow uncontrollably, large intestine, or, with it, oneʼs rectum, on it, it grows inside it.

**Cultural Beliefs about Cancer** — The Diné (Navajo People) believe in each person taking care of himself or herself so as to live a good long life by living in a harmonious way. A Navajo person will have these thoughts about taking care and living a good long life when seeing a doctor to have a checkup or to have a screening test for the early detection of cancer. Diné éí hózhóójikʼehgo (Síʼah Naagáhí Bikʼeh Hózhóón) ádaa áháyáníigíí yee siziigo binałjíʼ nizaadgóló iná yáʼátʼéehii yoołʼíh. Dií yee bidziilgo éí bitsʼíís yaa áhályáago éi azeeʼ álʼįįdí yah anádáahgo bitsʼíís bá naalkaahgo áko dií atsʼíís bitłʼóól dah diníséeh áadóó baʼát’eʼ hóló dooleefígíí tʼáá bitséedí yee ádaa áhályá.

Navajo people, in harmonious way (Long Life, Beautiful Life) taking care of self, by it, he/she stands, with it, long life good, living it. With these thoughts, taking care of his/her body, that, visit the doctor, checks, cells in the body that grow uncontrollably, early detention, taking care of self.

**Culturally Relevant Programs** — Programs that specifically address the culture of the people (such as the Diné or Navajo People) for whom they are presented or offered. Culturally relevant programs on cancer will address the traditions and beliefs of the patient in a respectful manner. Navajo people have a positive value about health, so it is more
culturally appropriate to think about “wellness” and actions that may lead to better health instead of thinking about things that may threaten or harm one’s health.

Bíla’ashdla’ii (Diné/Nabééhó) be’iina’ dóó bibe’ é’él’i’ binahjí’ bee biká’aná’álwo’ go bee oonish. Diné éi hózhóójík’ehgo iiná dah yilyéél yaa nitsidaakees, éi hadaat’éego ooddál hózhóogo iiná dah yilyéél yee naazí. Five fingered people (Diné or Navajo) their lives, and, their cultural beliefs, with it, they may get help, working with them. Navajo, beautiful way of life, they have it in their hands, they think about it, healthy or wellness, living a beautiful life, have firm belief.

**Diagnosis of Cancer** – A diagnosis of cancer is a detailed medical description of any of the group of diseases known as “cancer.” When a person is diagnosed with a cancer disease, information has been found (usually as a result of a “biopsy” followed by examination of the cells through a microscope) that determines that the person has the illness.

Ats’ís bitl’óól dah dínisééh áádóó ba’át’e’ hóló yileehigíí hats’ís bii’ díniséehgi haalts’ihgo bii’ da’déest’í’í ayóo bee yit’ínígií binákáá góne’ há bééhoozííh. Cells in the body that grow uncontrollably, one’s body, growth in it, pinched out, through microscope, for one, it is known/diagnosed.

**Diagnostic Procedures and Tests for Cancer** – A doctor may suspect that cancer may be present after examining a patient or after the patient has had an abnormal screening result from a mammogram, Pap test, colonoscopy, prostate exam, etc. In order to arrive at a more certain diagnosis, the patient will be asked to participate in additional tests, such as a biopsy and/or one or more methods of taking a picture (image) of the part of the body where the doctor thinks that cancer may be present.

Ats’ís bitl’óól dah dínisééh áádóó ba’át’e’ hólónígií hol naawólníigo t’áá alkéé’ honí’áago naho’dilkaah dóó nähodi’nél’íjhgo hazhó’ó há bééhoozííh. Cells in the body that grow uncontrollably, with one, suspect, one after another, test, and examine, until it is diagnosed.

- **Biopsy** – A biopsy is the removal and examination of a sample of flesh from a person to determine if a disease is present. This may be done by using surgery (cutting) or by using a needle to remove (withdraw) a small amount of the flesh from the area involved. (There is a section that describes different ways in which biopsies are done, in the separate main entry for “Biopsy” that begins on page 6.)

  Ats’ís kóníshéihgo haalgishgo, haalts’ihgo dóó haalt’óodgo binahjí’ ats’ís bohodiit’í’í gi naalkaah.
  Body, very small, cut out, pinched out, and sucked out from it, body, affected are, examined in the lab.

  - **Bone Marrow Biopsy** – In a bone marrow biopsy, a needle is used to remove a sample of tissue from a bone marrow so that it can be examined under a microscope.

    Hayid ts’ínígií éi doodago hak’aashja’ ts’ínígií tsah bee baa e’ets’hgo ts’ín biyi’ di havol la’ haalt’oh dóó nél’íjgo há naalkaah.
    One’s breast/chest area, the bone, or, at one’s hip, the bones, needle, with, stick into it, bone, inside it, bone marrow, some, sucked out, and, examined in the lab.
The doctor removes some bone marrow from the hipbone or another large bone. A pathologist examines the sample using a microscope. The removal of tissue to look for cancer cells is called a biopsy. Local anesthesia is used during a biopsy so that the patient may be more comfortable. A biopsy is the only sure way to find out whether cancer cells are present. There are two ways that the doctor can obtain a bone marrow sample. Some patients will have both procedures:

- **Bone Marrow Aspiration** – The doctor uses a needle to remove (suck out) samples of bone marrow.
- **Bone Marrow Biopsy** – The doctor uses a very thick needle to remove a small piece of bone and bone marrow.

**Imaging Study** – Imaging studies allow health care providers to take pictures of areas inside the body. (“Imaging” refers to making an image or a picture.)

Examples include:

- **CT Scan (Computed Tomography)** – CT scan is a series of pictures that are taken by an x-ray machine which is connected to a computer. The computer shows the pictures in sequence so that detailed pictures of different parts of the body can be studied. A contrast material, such as a dye, may be used so that different organs will show up more clearly in the x-ray pictures.

  - Ats’iis baa aháááájí nidaalnishíghí e’alyaa yee nida’álkaah.
  - Health care workers, picture/images, with it, studies done.

- **MRI (Magnetic Resonance Imaging)** – A strong magnet linked to a computer is used to make detailed pictures of areas inside a person’s body. The health care provider can view these pictures on a computer and can print them on a sheet of photographic film.

  - Tóshjéethso biih ho’dílzhó dóó béeésh ná’iiláhii bee hats’íís naalkaah dóó yida’ale’.  
  - Big barrel, while inside it, sliding, and magnetic, with it, body, study done and pictures are taken.

- **PET Scan (Positron Emission Tomography)** – A small amount of radioactively labeled glucose (sugar) is injected into the bloodstream while a machine takes pictures that show which cells in the body are using the glucose at the highest rate. Cancer cells sometimes show up in the PET scan because they usually use glucose at a higher rate than other cells.

  - Ch’iyáán náák’aad bee n’a’álkaah.  
  - Glucose, with it, studies done.

- **Radionuclide Scan** – A small amount of radioactive material is injected into the bloodstream and collects (concentrates) in certain bones or organs.
A machine called a scanner detects and measures the amount of radioactivity in different places in the body. The scanner provides pictures of bones or organs on a computer screen or on a sheet of photographic film. Afterward, the body gets rid of the radioactive substance quickly.

Shá bee na’alkaah.
Radiation, with it, studies done.

- **Ultrasound** – An ultrasound device makes sound waves that people cannot hear. The sound waves bounce off tissues inside the body like an echo. A computer interprets these echoes to provide a picture called a sonogram.

Náás hosiyoolts’iįł doo diits’a’góó bee na’alkaah.
Diiği át’eego ći ahilkeed.
Sound waves, cannot be heard, with it, studies done.
In this way, it takes pictures/movies.

- **X-rays** – X-rays are the most common way to view organs and bones inside the body.

Bee ághá’dílloaad.
With it, shine the light through it.

**Early Detection of Cancer** – Early detection of cancer is finding a cancer and stopping it before it can spread to other parts of the body. Early detection of cancer can save many patient’s lives and improve the chances of successful treatment and survival. Examples of tests used to detect cancer early are Mammograms for detecting breast cancer, Pap smears (Pap Tests) for detecting cervical cancer, Prostate Exams for detecting prostate cancer and Colonoscopy used for detecting cancer of the colon.

Ats’iiís bitl’óól dah díinišéélh áá’doóó ba’át’e’ hóló yileehgo t’ahgo
há béehooziįįh, ći bee ni’ ádoolníllo go doo hats’ííštahgoó náás dínóoséeldá.
Cells in the body that grow uncontrollably, early growth, when known, that, with it, to stop it, not, among one’s body, forward, will not advance/grow.

**Early Warning Signals (or Signs)** – Early warning signals are signs that something is not right with the body (or not right inside the body). As cancer starts to grow in the body, it may produce certain warning signals or symptoms. (See the list of “Symptoms of Cancer” beginning on page 44 of this Glossary.) It is important to see the doctor or other health care provider right away about any symptoms or physical changes in the body, in order to determine the cause of the symptoms or changes.

Ats’iiís bitl’óól dah díinišéélh áá’doóó ba’át’e’ hóló yileehigii
díinišéehgo hats’iiís táhgo át’e’éhigii baa ákozhniizįįįh.
Cells in the body that grow uncontrollably, when it grows, when it becomes, one’s body, changes, one may notice it.

**Endoscopy** – An endoscopy is the examination of the inside of a body area or a hollow body part by means of an endoscope (small camera) that is attached to a tube that makes it possible to place it inside the area so that that area can be seen. If a suspicious growth is found when using an endoscope, the doctor may remove the growth.
so that it can be examined in the laboratory (a **biopsy**). **Colonoscopy** is one kind of endoscopy, in which the part of the body being examined is the colon (large intestine). **Sigmoidoscopy** is another kind of endoscopy, in which the part of the body being examined is the sigmoid (which is the lowest part of the large intestine.)

**Epidermis** — The epidermis is the outer toughened layer of the skin, which protects the more delicate layers of the skin that are underneath it.

**Epithelium** — Epithelium is the thin layer of tissue that lines the internal organs, glands, and other structures of the body. This includes the inner linings of the air tubes that bring air into and out of the lungs, the inner linings of the arteries and veins that carry blood, the inner linings of the stomach and intestines where the food goes through, the inner linings of the reproductive organs, and the inner linings of the tubes that carry urine out of the body. A cancer that develops in this type of tissue is called a “**carcinoma**.”

(See the description of “**Carcinoma**” under the types of “Cancer” in this Glossary.)

**Fecal Occult Blood Test (FOBT)** — This is a test that screens for cancer of the colon. The word “occult” means “hidden” and the word “fecal” refers to “stool.” A person places a small amount of feces on a paper card that is then sent to a laboratory to be tested for blood. A patient can take this paper card home and then prepare and send the sample to a laboratory through the mail, or the sample can be taken by a doctor or nurse in a clinic. Blood in the feces may be an early signal or sign of cancer in the colon. Sometimes cancers or polyps bleed, and the FOBT can detect tiny amounts of blood that are too small to be seen with the eyes. If blood is detected in the stool through this test, other tests will be needed to find the source and cause of the bleeding. Benign conditions (conditions that are not dangerous) such as hemorrhoids also can cause blood to be present in the stool.
Paper, on it, one’s feces, on it, one puts, that, medical doctor, for one, they do test, they look at it. One’s feces, blood, among it, that, very well, examined in the lab.

**Genetic Risk Factors** – Genetic information is information that is contained within the genes inside the cells which is passed on from parents to their children. Many cancers develop as a result of changes or mutations in genes. A normal cell may become a cancer cell after a series of gene changes occur. Store-bought tobacco, certain viruses, or other factors in a person's lifestyle or environment (such as alcohol or other chemicals in the air or water) may cause such changes in certain types of cells. Some gene changes that increase the risk of cancer are passed from parent to child. These changes are present at birth in all cells of the body. It is these gene changes that are passed from parent to child that may be genetic risk factors for the development of cancer.

Genetics of cell, following it, future births, sometimes, may change from it. Cells in the body that grow uncontrollably, will become, from changes in the genes passed to offspring. Smoking store-bought tobacco, or from environment, as uranium, from it, one may be harmed.

**Hormones** – Hormones are substances that are made in small amounts in different parts (organs) of the body. They are carried in the blood to all parts of the body, and guide and control what other parts of the body do. Hormones help control the actions of cells and keep certain cells and organs working properly. Some cancers need hormones to grow. Body fluid, many types, are different, they are. Pancreas/glands and lymph node/hormone that group, its fluid, blood, flows about. Just that, hormone therapy, it is, one’s blood, with it, well, balance, keeps, and, well, they work together.

- **Hormone Therapy** – Hormone therapy is used to keep cancer cells from getting or using the hormones that they need. Hormone therapy is “systemic therapy,” since the hormone therapy medication goes through the blood to all parts of the body. Just that, hormone therapy, it is, one’s blood, with it, well, balance, keeps, and, well, they work together.

Examples of hormones that are normally present in the body include the following:

- **Estrogen** – Estrogen is a type of hormone made in the woman’s body that helps develop and maintain female body characteristics and helps the body grow to maturity. Estrogens can also be made in the laboratory.
Body fluid, with it, female, being, just that, her body, develops and with it, she grows. Some, hormone therapy, the woman, her body, with it, body characteristics, and, grows by it to maturity.

- **Progesterone** — Progesterone is a type of hormone made in the woman’s body that plays a role in the menstrual cycle and pregnancy. Progesterone helps the woman’s body adjust to pregnancy and support the growth of the unborn baby inside of her.

- **Testosterone** — Testosterone is a hormone that is made in the man’s body that promotes the development and maintenance of male body characteristics such as a deep voice and more coarse body hair.

**Human Papillomavirus (HPV)** — HPV is the name of a group of more than one hundred different viruses. More than thirty of these viruses can be passed or transmitted from one person to another through sexual contact and can infect the genital area affecting the skin of the penis, vulva, vagina, rectum and anus. Many people who become infected do not have symptoms and will get better on their own.

Some of these viruses are “high risk” and may cause certain kinds of cancers including cancer of the cervix. Pap Tests can detect changes in the cells that are precancerous and may be caused by the HPV. Over time, if these changes in the cells of the cervix go undetected and untreated, they can become cancerous.

In 2006, a new vaccine called Gardasil™ was approved to provide protection from four of the most common forms of HPV. It is recommended to be given as a series of three injections over a 6-month period to girls and young women who are between 9 and 26 years of age.

**Immunity** — Immunity refers to the body’s natural defenses that help the body to stay strong and to fight off things (such as bacteria and viruses) that may cause harm. Immunity refers to the condition of being protected against an infectious disease.
Immunity can develop as a result of previous exposure to the substances in a vaccine, from a previous infection with bacteria or viruses, or by transfer of immune substances from another person (such as the antibodies that a mother provides to her baby in her breast milk).

Impotence – In medicine, impotence refers to a man’s inability to have an erection of the penis adequate for sexual intercourse. Impotence is also called “erectile dysfunction.” Some types of medicine and some types of surgery (such as for prostate cancer) may result in impotence as a side effect of the treatment.

Incidence of Cancer – The number of new cases of a disease that are diagnosed during a specific period of time. For example, the number of new cases of cancer that are diagnosed during one year.

Interferon – Interferon is a kind of medicine that helps the body's natural defenses to stop or slow the growth of cancer. Interferon is a biological response modifier, meaning that it is a substance that can improve the body's immune system response to fight off infections and other diseases such as cancer. Interferon interferes with the development of more cancer cells and can thereby slow the growth of a cancerous tumor. There are several types of interferon, including interferon alpha, beta, and gamma. The body normally produces these substances in the blood, but the body may not make enough interferon to stop the growth of a cancerous tumor. Interferons are also made in the laboratory so that extra amounts can be provided to the patient to help treat cancer (or other diseases).
Body’s natural defenses, as a medicine, that, cells in the body that grow uncontrollably, against it, it will work/fight, stop it or slows down the growth.

**Interleukin-2** — Interleukin-2 is a kind of medicine that helps the body's natural defenses to stop or slow the growth of cancer. Interleukin-2 is a biological response modifier, meaning that it is a substance that can improve the body's immune system response to fight off infections and other diseases such as cancer. The body normally produces these substances in the blood, but the body may not make enough interleukin-2 to stop the growth of a cancerous tumor. Interleukin-2 is also made in the laboratory so that extra amounts can be provided to the patient to help treat cancer (or other diseases).

Ats’iis yee bits’áhoniyeé’igii azee’go éi ats’iis bitl’óól dah diniiséeh áádóó ba’át’e’ hóló yileehgo yik’ihji’ naalnishgo ni’ áyiil’iíj éi doodago hazhóó’ógo nooséél yileeh. Ats’iis yee bits’áhoniyeé’igii azee’go éi naalniih dódó ts’iíhniiidóoh t’éé éi ats’iis bitl’óól dah diniiséeh áádóó ba’át’e’ hóló yileehigii yik’ihji’ naalnish.

**Late Detection of Cancer** — Late detection of cancer refers to finding a cancer in someone after the cancer has been present for a long time and has had a chance to grow larger or to spread. If the cancer is found when it is still small (see “Early Detection of Cancer” in this Glossary), then there is a much better chance of removing the cancer from the body and stopping the spread of cancer to other parts of the body.

Ats’iis bitl’óól dah diniiséeh áádóó ba’át’e’ hóló yileehigii nízaadgóó bil nhoolzhiizhgo índa há bénálkáá’ dóó nitsaago éi doodago alts’áá’góó dadíniséeh. Ats’iis bitl’óól dah diniiséeh áádóó ba’át’e’ hóló yileehigii t’ahdzi alts’iíjigo éi nahgóó hadoolighshgo áko doo nitsaay yileehda dóó doó alts’áá’góó dadínooséeldá.

**Life Expectancy** — Life expectancy is an estimate or a prediction as to how long a person is expected to live. It is a statistical measure defined as the expected or average survival of
people who are similar to each other (in age, sex, ethnicity, current health condition including having a disease of the same type, etc.). When doctors are treating a patient with an advanced case of cancer, they may tell the patient that they think the patient has a certain amount of time left to live, based on their experience of treating other patients with similar cancer conditions.

Dikwií shíí nááhajji’ da’iiiná. Bila’ashdla’ii dah naazhjaa’góó t’áá ahéet’éego iiiná deiyilt’éeh (béédááhai, asdzáni/diné danilí, bikági bee al’aát’é’éhvii, bits’ilstahdi ádaat’áhhigii bee báah dah nahaz’aníii bee wólta’). Díí éí binahjii’ azee’il’íini la’ át’iis bitl’óol dah dinísééh áádóó ba’át’e’ hóló yileehigii áah dinísééhigii haashjii nízahjii’ hwe’iiina’ naat’i’ dooleeligii yee ho’ hodoolnih. So many years / extension of time, life, an estimate. Five fingered people, in groups, their health conditions, with, similar types of illness, living (age, men/women, skin/ethnicity, health conditions, similar illnesses). Based on this statistic, doctors, cells in the body that grow uncontrollably, as it grows, certain amount of time left to live, will tell to him/her.

**Lifestyle Changes**  
Lifestyle refers to how a person lives his or her life everyday – what they eat and drink, whether they smoke cigarettes or chew tobacco, what they do for work, how well they care for their bodies, etc. Changes from traditional lifestyles to more modern lifestyles are thought to contribute to an increase in cancer rates among many tribes of Native Americans. For example, consuming more processed foods compared to natural foods from the land has been a significant lifestyle change for many Native Americans. Modern technologies and conveniences such as fast foods, piped running water, paved roads and cars and pickup trucks has made it much easier for many people to live, but this has resulted in less physical activity and more sedentary lifestyles. These changes in diet and physical activity may be linked to the development of certain types of cancers (as well as overweight, obesity and diabetes).

T’áá ákwííjí iiíná joot’ihiigii éí ajiyánígii dóó jidláníigii, la’da éí kindéé’ nát’oh éí doodoogó nát’oh yit’aafi chojoool’i, naanish ájjí l’iigii dóó t’áá hó jizíigii hats’iis baa áhójilyá. Áko diiji lahgo át’éego iiiná nídaat’í’, t’áá éí bininnaa ats’iis bitl’óol dah dinísééh áádóó ba’át’e’ hóló yileehigii dii bitsí’ yishtlíhzhí kéeédahat’ jíjóó t’áá yéego bee báah dahaz’aá sílji’. Ch’iyyán tsxíílgo dooleeligii yiyá, alk’idáá’ éí k’ée’ didléehgo nízhónígo ch’iyyán deiytáá nít’éé’. Yee bigáál naat’i’iíí hóló dóó tó bìl yah daaazlí, atíin hashdélélzh dóó chidi bee ch’aana’’adá t’éí chodetyoool’í. Doo bitah dahodísééhgoó ayóó ádaníiildíí éí bininnaa ats’iis bitl’óol dah dinísééh áádóó ba’át’e’ hóló yileehigii dóó ats’iis ch’iyyán doo hazhó’ó choyool’íjída ádaat’éhigii t’éí ayóó bidadééhní.

Every day, life, one walks/lives, that eating and drinking, some store-bought tobacco or chewing tobacco, use it, their work style and just up to one, taking care of one’s body. Today lifestyles have changed, for that reason, cells in the body that grow uncontrollably, Native Americans, the rate has increased among them. Fast foods are, mostly, eaten, long ago, farming, good food, they ate. Transportation and running water in homes, paved roads and use of vehicles are used. Lack of exercise, for these reasons, overweight, cancer and diabetes, are worse among them.

**Localized Cancer**  
A localized cancer is a cancer that has stayed in one area in the body and has not spread (metastasized) beyond the original place where it first began to grow.
Lymphatic System – The lymphatic system includes the tissues and organs that produce, store, and carry lymph and white blood cells (called lymphocytes) that fight infections and other diseases. This system also includes the bone marrow, spleen (near the stomach), thymus (near the heart), lymph nodes, and lymphatic vessels (a network of thin tubes that carry lymph and white blood cells). Lymphatic vessels branch, like blood vessels, into all the tissues of the body.

- **Lymph** – Blood flows in the body from the heart to the arteries, then to the smaller arterioles and then to the even smaller capillaries. From the capillaries, it flows into veins and then back toward the heart. Most capillaries in the body are designed so that they “leak” clear fluid of the blood (but not blood cells) as the blood is passing through the capillaries. This clear fluid from the blood that leaks out of the capillaries makes up the lymph. It “bathes” the cells of the body but also picks up bacteria and any loose metastasized cancer cells that may be present. The lymphatic vessels carry the lymph to the lymph nodes, where bacteria, loose cancer cells and any other materials that do not belong may be filtered out by the lymph nodes.

- **Lymph Node** – Lymph nodes (also called lymph glands) are the small bean-shaped parts of the lymphatic system that act as filters, protecting the body from infection and disease. Each lymph node is a rounded mass of lymphatic tissue that is surrounded by a strong protective covering of connective tissue. As lymph filters through the lymph node, the lymph node removes cells that may be carried in the lymph. These may be bacteria cells from an infection in the body, or they could also be cancer cells that have broken off from a tumor and are being carried to other parts of the body in the lymph. This is why cancer sometimes spreads from its original location (such as in the breast) to nearby lymph nodes (such as in the armpit). Lymph nodes are located along the lymphatic vessels, and are concentrated in such areas as the armpit, groin and side of the neck. Lymphocytes, which are one type of white blood cell, are present in lymph nodes and attempt to destroy any bacteria that are caught in the lymph node and filtered out from the lymph.

Akááž yee hadít’éhígíi dił ligaii ií’ií dóó hasht’e’ nidayiikaah dóó ats’íistahgóó hólóogo ádayósín. Awol, atélí, akááž dah naaznilígíi, dóó akááž bitoo’ éi ats’oos nahalingo t’áá át’é ats’íís yee hadít’é.

Tonsil/lymph nodes, and, with it, the makeup of it, blood, white ones, it makes, and, keeps it in one area/storing it, and, among body, it exists, it keeps it.

Bone marrow, spleen, lymph node fluid, like blood vessels, all of the body, with it, the makeup of it.
Tonsil/lymph nodes, body, with it, make up of it, very small, round lumps in place. This, tonsil/lymph nodes, among the body, bad stuff, filters out, and blood, the white ones, inside it, making it exist.

**Malignant Tumor** — See the entry on page 48 under “Tumor” in this Glossary.

**Mammogram** — A mammogram is a picture of the breast made with x-rays. Mammograms can often show a lump in the breast before it can be felt. When a mammogram is made, it squeezes the breast. Mammograms also can show a cluster of tiny specks of calcium. These specks are called *microcalcifications*. Lumps or specks can be caused by cancer, or by precancerous cells, or by other conditions in the breast. Further tests are needed to find out if abnormal cells are present. If an abnormal area shows up on a mammogram, more x-rays or a biopsy may be needed.

A biopsy is the only way to tell for sure if cancer is present.

Habe’ bighá’díldła’. Habe’ biyi’di nitl’izgo si’áago ēi bee bééhoozjih. Ákót’éego ēi hazhó’o habe’ há naalkaahgo bee hazhó’o bééhoozjih. Abe’ bee agháda’díldlaadígíi ēi yaago yiįlishgo yighádíldla’. One’s breast, x-ray is done. One’s breast, inside it, hard lump, in place, that, with it, it is examined. That way, that, carefully, one’s body, test, for one, searching it, with it, carefully, it is known/detected. Breast, x-ray mammogram, that, downward, squeezes it, x-ray done.

Mammograms are the best screening tests that health care providers have to find breast cancer at an early stage. However, mammograms are not perfect:

- A mammogram may miss some cancers. 
  (This result would be called a “false negative.”)
- A mammogram may show things that turn out not to be cancer. 
  (This result would be called a “false positive.”)
- Some fast-growing tumors may grow large or spread to other parts of the body before a mammogram detects them.
  
  - Naalkaahgo habe’ bighá’díldla’iğíi lhaha dii āts’ísis bitl’óól dah dînîseéh áádóó ba’át’e’ hólo yileehgo nayisiih.
  - Naalkaahgo habe’ bighá’díldla’iğíi lhaha āts’ísis bitl’óól dah dînîseéh áádóó ba’át’e’ hólo yileehigíi doo ēi át’eégóó iilki’.
  - Āts’ísis bitl’óól dah dînîseéh áádóó ba’át’e’ hólo yileehgo lhaha nitsaa yileeh dóó nááñá łyhqóó dîniséehgo iná naalkaahgo habe’ bighá’díldla’.
- Test, breast, x-ray/mammogram, sometimes, this, cells in the body that grow uncontrollably, will miss it.
- Test, breast, x-ray/mammogram, sometimes, cells in the body that grow uncontrollably, not it, takes a picture of it.
- Cells in the body that grow uncontrollably, sometimes, big becomes, and to another area, it grows, finally, test, breast, x-ray/mammogram.

Mammograms (as well as dental x-rays and other routine x-rays) use very small doses of radiation. The risk of any harm is very slight, but repeated x-rays could cause problems. The benefits nearly always outweigh the risks. The patient should talk with the health care
provider about the need for each x-ray. A shield (such as a covering or “apron” with lead in it) is used to protect other parts of the body that are not going to be in the x-ray picture.

**Medicine**

- **Traditional Medicine** – Traditional healing practices and ceremonies used by Native People.
  
  Bitsi’ yishtlizhii be’aže’ dóó binahagha’. Native People, their medicine, and ceremonies.

- **Western (“White Man’s”) Medicine** – Medicine as practiced by people who have an M.D. (medical doctor) or D.O. (doctor of osteopathy) degree or license, and by other health professionals, such as dieticians, physical therapists, psychologists, and registered nurses. Other terms for Western or “conventional” medicine include allopathy and allopathic medicine, mainstream medicine, orthodox medicine, regular medicine and biomedicine.

  Bilagáanaají azee’ dóó azee’ii’ini yaa îlta’ii. Anglo, medicine, and medical doctor with degree.

**Menstruation** – Menstruation is the periodic (“monthly”) discharge (bleeding) of blood and tissue from the inner lining of the uterus. From puberty until menopause, menstruation occurs about every 28 days, but menstruation does not occur during pregnancy.

  Ch’iké dóó asdzání bee ninádzi go dił aahdii néyiiltseéh.
  
  Biishch’id biyi’déé’ bik’ésti’i gií nahgóó kót’iíh éí bits’áádóó chooyin nádleeh.
  
  Young ladies, and, women, with them, every month, blood, menstrual, when they see it. Their uterus, from inside it, coverings, to there, it does/removes itself, that, from it, menstrual, she becomes.

**Metastasis** – Metastasis refers to cancer cells breaking loose from a tumor and then traveling, spreading or moving from one part of the body to another part of the body. These cancer cells often end up in lymph nodes or in organs such as the lungs or liver.

  That is why the lymph nodes, lungs and liver are often the first parts of the body to which a cancer may spread, but a cancer may also metastasize or spread to other organs of the body.

  Hats’ístahdii haa’ída ats’íis bitl’óól dah diniisééh áádóó ba’át’e’hóló yileehgo éí náána láhida dah náádiniisééh.
  
  Among one’s body, somewhere/a part, cells in the body that grow uncontrollably, from there, to another part, it will start growing there.

- **When Cancer Spreads** – The spread of cancer from one part of the body to another is called “metastasis.” Metastases share or keep the name of the original ("primary") tumor where the cancer first began to grow. For example, a melanoma (a cancer of the cells that make pigment to give us our complexion) that begins in the skin can have cells that enter the bloodstream and spread to organs in other parts of the body such as the liver or brain. This kind of cancer cells that spread to the liver would be called metastatic melanoma, not liver cancer.

  Ats’íis bitl’óól dah diniisééh áádóó ba’át’e’ hóló yileehgíí haa’íshíí áltse diniisééh, t’áá éí ba’át’e’ nááná láhdi t’áá ákót’éego náádiniisééh.
  
  Cells in the body that grow uncontrollably, somewhere, primary growth, just that, cancer, another area, just the same one, grows.
• **Primary Site** – The primary site is the place in the body where the cancer first began growing. The word “primary” means “first.”

  Ats’ís bitl’óól dah díniséhéh áádóóó ba’át’e’ hóló yíleehígii
eí hats’ís ts’idá áhtsé bii’ díniséhégí óolyé.
Cells in the body that grow uncontrollably,
one’s body, very much, the first site, it grows inside it, it is called.

**Microscope** – A microscope is an expensive type of equipment that is used to look at objects that are too small to see with the eyes. A microscope uses lenses made of glass to make objects appear larger. When a doctor removes a sample of flesh from a patient in a biopsy, the sample will be examined through a microscope to see if the cells have become cancer cells.

  Bii’jí adést’iį’ t’áadoo le’e áádaalts’ísigo anáá’ doo bee yit’ínigií nitsaa áyósingo
ayóo bee nél’i. Azeé’iį’ hants’í’da háilts’íhgo, dií bii’jí adést’iį’ígií yee yínél’į’ doo.
Into it, one looks, something, too small, one’s eyes, not able to see it, well, with it, big makes it, very, with it, one sees it. Doctor, one’s flesh, pinched out, this, into it, one looks, with it, one looks at it.

**Monoclonal Antibodies** – A type of protein made in the laboratory that can attach to substances in the body or onto the surface of cells. There are many kinds of monoclonal antibodies; each one is specially made so that it can find and attach to a different substance or cell. Monoclonal antibodies are being used to treat some types of cancer and are being studied for the treatment of other types. They can be used by themselves or they can also be made so that certain drugs or radioactive materials are attached to them and are then carried with the antibodies in the blood directly to the cancer cells in a tumor.

(See the entry for “Antibodies and Antigens” in this Glossary.)

**Mortality** – Mortality refers to death.

• **Mortality Rate** – The mortality rate is the number of deaths that occur in a population during a specific period of time, such as the average number of cancer deaths each year for every 1,000 persons in a state or tribe.

  Bila’ashdla’ii noonéñígíí wolta’. Bìla’ashdla’ii noonéñígíí éí dií
ats’ís bitl’óól dah díniséhéh áádóóó ba’át’e’ hóló yíleehígii bits’áádóó
Oncology — Oncology means “the study of cancer.”

Ats’iis bitl’óól dah diniisééh áádóó ba’áát’e’ hóló yileehegií baa ólta’ dóó naalkaah.
Cells in the body that grow uncontrollably, the study of it.

Oncologist — An oncologist may be a scientist who does research on cancer or a doctor who specializes in the treatment of patients who have cancer. There are also different specialties among oncologists, such as a medical oncologist and a radiation oncologist. Some oncologists also specialize in specific types of cancer such as breast cancer or colon cancer.

Some, medical doctors, cells in the body that grow uncontrollably, research it and some are doctors who treat cancer.

- Medical Oncologist — A medical oncologist is a doctor who specializes in treating cancer. Some medical oncologists specialize in a particular type of cancer or a particular type of cancer treatment.

Cells in the body that grow uncontrollably, doctors, specialized, doing lab test, and, medicine, toward it, cells in the body that grow uncontrollably, with it, stopping it, to be, applies to it.

- Radiation Oncologist — A radiation oncologist is a doctor who specializes in treating cancers that require radiation for the most effective treatment. The radiation that is used may be with x-rays or from other forms of radiation. (For more information, see the description of “Radiation Therapy” under “Cancer Treatment” on page 18 of this Glossary.)

Doctor, radiation/x-ray, cells in the body that grow uncontrollably, that, with it, the one it works.

Palliation / Palliative Care — The cancer cannot be cured or controlled, but the goal of treatment is to decrease the discomfort caused by the disease so that the patient may have pain relief and relief from nausea, vomiting or other effects of the disease. In some cases a person may have surgery to remove most of a very large cancer so that the tumor will not cause damage to other organs by crowding; for example: a brain tumor may be decreased in size (through surgery) to slow the effects of the disease but it may not be possible to remove it completely to cure the person.

Sih hasingo, yini dilyingo aa áháyá.
Assurance, with holy people’s thought, comfort care.
Prostate Cancer – Prostate cancer is a cancer that forms in tissues of the prostate. Prostate cancer most often occurs in older men. The prostate is a gland in the male reproductive system that is located just below the urinary bladder and in front of the rectum. The prostate is part of a man's reproductive (sexual) system. It surrounds the urethra, which is the tube through which urine flows out of the body. A healthy prostate is about the size of a walnut. The prostate makes most of the seminal fluid which helps carry sperm out of the man's body as part of the semen. If the prostate grows too large, it squeezes the urethra. This may slow or stop the flow of urine out of the body, and for many men with an enlarged prostate this may be the first sign that they have a problem with their prostate. (There is more information about the Prostate under "Cancer Screening.")

Prostate cancer is not contagious. A person cannot "catch" prostate cancer from another person, and a person with prostate cancer cannot give it to someone else. Prostate cancer is not caused by sexual activity.

Risk factors for prostate cancer are:

- **Age**: Age is the main risk factor for prostate cancer. This disease is rare in men younger than the age of 45 years. The chance of developing prostate cancer goes up sharply as a man gets older. In the United States, most men with prostate cancer are older than 65.
  
  Náás jootihígíi Getting older

- **Family History**: A man's risk is higher if his father or brother have had prostate cancer, or if men in his mother's family have had prostate cancer.
  
  Bii’ oochígíi Family history

- **Race**: Prostate cancer is more common in African-American men than in white men, including Hispanic white men. It is less common in Asian and Native American men.
  
  Bitsí’ yishtlizhii jílígo Being Native American

- **Certain Prostate Changes**: Some men have cellular changes that cause them to be at an increased risk for prostate cancer and these changed cells do not appear to be normal when they are examined using a microscope.
  
  Halízh bikááx làhgo át’íhgo Prostate changes

- **Diet**: Some studies suggest that men who eat a lot of animal meat and fat may be at increased risk for prostate cancer. Men who eat a lot of fruits and vegetables may have a lower risk for prostate cancer.
  
  Ch’iyáán atsí’ yéego neesk’ahgo yidániígíi bits’áádóó ihodidoot’íh. Food, meat, very fatty, one eats, from it, problems.
**PSA or Prostate Specific Antigen** – PSA is a substance that is produced by the prostate that may be found in an increased amount in the blood of men who have prostate cancer or benign prostatic hyperplasia (BPH) or an infection or inflammation of the prostate. A lab test is used to check the level of PSA in a man's blood. A high PSA level is commonly caused by BPH or prostatitis (inflammation of the prostate). Prostate cancer may also cause a high PSA level.

(See more information about BHP and the PSA Test under “Cancer Screening,” and also the entry on “Antibodies and Antigens.”)

**Halilzh bikááž bihodiit’ihgo bich’i’ bitoo’ i’il’inígíí hadíl bii’ yileeh éí ats’ííís bitł’óól dah dínísééh áádóó ba’ át’e’ hóló yileeh.**

One’s urine, its tonsil/lymph nodes, affected, it becomes, toward it, its fluid/ juice, the one that makes it, cells in the body that grow uncontrollably, becomes.

**Psychology : Coping in Response to a Diagnosis of Cancer** – learning to accept the fact that one has cancer, dealing with it in a positive way and making thoughtful decisions regarding treatment. A positive emotional response to dealing with cancer (“fighting” cancer, as some people would say) may strengthen a person’s body, whereas a negative response to dealing with cancer (such as “giving up”) may actually weaken the body’s ability to resist the growth of cancer.

**Ats’ííís bitł’óól dah dínísééh áádóó ba’ át’e’ hóló yilehígíí hohodiílt’í’ go há béeáhoójííhgo bích’í’ hadziil dóó há’jólñíígo ázh’dólzin.**

Cells in the body that grow uncontrollably, when it harms, for one, it is known, toward it, one’s strength, and, one’s faith/hope, coping with it.

- **Acceptance** – Acceptance means that the person understands that he or she has cancer and has begun to make decisions and actions in response to that knowledge. This can include cancer treatment plans and actions as well as talking with friends and relatives about what may happen in the future.

  **Ats’ííís bitł’óól dah dínísééh áádóó ba’ át’e’ hóló yilehígíí hohodiílt’í’ go há béeáhoójííhgo hááh i’doonoñíígií éí doodoi doo hááh i’doonoñíígií bohojííhdi’ááh.**

  Cells in the body that grow uncontrollably, when it harms, for one it is known, treatment or no treatment, one plans it.

- **Denial** – Denial is a way of defending oneself, by not wanting to recognize and accept a diagnosis of disease.

  **Ats’ííís bitł’óól dah dínísééh áádóó ba’ át’e’ hóló yilehígíí hohodiílt’í’ go há béeáhoójííhgo t’óó ádajííjí jiníígo doo jooláágoó ázh’dólzin.**

  Cells in the body that grow uncontrollably, when it harms, for one, it is known, merely/just, they are saying, I think, one says it, not believing it, one keeps himself/herself.

- **Anger** – Anger is an emotional response to a negative situation.

  **Háháchí’ dóó hánijníjí’à.**

  One is angry and short tempered.

- **Stress** – Stress is something in the social or physical environment that can cause mental tension or even a physical reaction that may lead to illness.
Hanaanish dóó honitsékeesda hadei’ánát’iįįgo niįl njihá.
One’s work, and, one’s thinking, tension, one is living with stress.

- **Anxiety** – Anxiety is a condition of strong nervousness, uncertainty and fear resulting from the expectation of a threatening situation. A feeling of anxiety can be so strong that normal physical and emotional functioning is affected.
  
  Nitséjíil’i dóó tskįįį ázhdíl’iįįgo biįįhɑi bik’ee hol höyé’é’.
  One becomes emotional with fear and very anxious or nervous of fear.

- **Supportive Behaviors** – Supportive behaviors may include providing support or assistance to someone, offering to listen, or giving helpful advice or kind assistance.
  
  Łahdóó áká anįįlwo’ hanahji’ diné dabidiidil. Ach’i’ yáti’ dóó ajįįs’aa’ bee áká’anįįlwo’. Hwe’ajooba’ hóló. Yá’át’ééhjigo t’el nitsizikéeés dóó yáįįlti’.
  From one area, one helps, on one, people, keeping their strength.
  Toward one, speaking, and listening, with it, one helps. One’s faith/kindness, one has. Toward the good side, only, one thinks, and, one talks.

  o **Caregiver** – A caregiver is a person, such as a doctor, nurse or social worker, who helps in the prevention or treatment of an illness or disability. A caregiver may also be a person such as a family member who takes care of a child or a dependent adult. The caregiver may help with bathing, meal preparation or daily care.
  
  Azeé’iįį’iįį yił nidaalnishgo haa ádahalyá.
  Hooghandóó hashchiimii, hák’eída haa ádahalyá.
  Medical doctor, with him/her, they work, to one, one who takes care.
  From home, parents or relatives, they care for you.

**Risk Factor** – A risk factor is something that increases the chances (or likelihood) that a person may develop a disease. Some examples of risk factors for cancer include older age, a family history of certain cancers, use of store-bought tobacco products, certain eating habits (such as too much meat or fat in the diet), obesity, lack of exercise, exposure to radiation or other cancer-causing agents, and certain kinds of genetic changes.
  
  Nahasdzáán bikáá’ hoł haz’ändií hanaagóó hoł áhoot’ééhjíí t’áadoo le’ée ách’i’ kójįį’i dóó bééjígháhjíí t’áá bits’aądóó kahodeezt’į’. On earth, one’s home, surrounding, state of being, things, taking in, and, expose to, from it/exposed to, may develop diseases.

- **Heredity** – Heredity refers to information that is contained within the genes of our cells and that can be transmitted or passed down from parent to child. Cancer is not considered to be an inherited illness because most cases of cancer (perhaps 80 to 90 percent of cases) occur in people with no family history of the disease. However, a person's chances of developing cancer can be influenced by the inheritance of certain kinds of genetic alterations (changes). These alterations tend to increase an individual's susceptibility to developing cancer in the future.
  
  (See also the entry for “Genetic Risk Factors” on page 28 of this Glossary.)
  
  Aah dahwiidool’aalii lahda t’áá bil náášs oolchiíł leh.
  Illness, sometimes, just with it, inherited within birthing.
• **Lifestyle** — Lifestyle factors such as a poor diet, not enough physical activity or being overweight may result in a person being at increased risk for developing several types of cancer. For example, studies suggest that people whose diet is high in fat have an increased risk of developing cancers of the colon, uterus and prostate. Lack of physical activity and being overweight are risk factors for cancers of the breast, colon, esophagus, kidney and uterus. (See also the entry for “Lifestyle Changes” on page 32 of this Glossary.)

Doo hazho’ó ch’iyáán yá’át’éehii jiyaágóó dóó doo ádáa áhojíjíáagóó t’áá éí bits’áádoóó ats’íí biitl’óól dah diníisééh áádóó ba’át’e’ hóló yileehíííi doo hákástí’dá dooleeł.

Not eating healthy food, and not taking care of self, from it, cells in the body that grow uncontrollably, is a risk factor.

• **Environment** — Where we live, where we work and what we are exposed to may influence our risk for developing cancer. This may include pollution or other chemicals in the air, soil and water, and other sources of exposure such as:

Ba’át’e’ dahólóónii bideezla’,-nilch’ih dóó tó’ leetsoda béejíjíháago bits’áádoóó kahodeez’t’i’go doo hákástí’goó át’é.

Exposure to chemical, air and water, uranium, from it, is a risk factor.

  o **Sunlight** *(Ultraviolet or UV Radiation)* — from the sun itself or also from sunlamps and tanning booths. Ultraviolet light from the sun and from sunlamps can cause early aging of the skin and skin damage that may lead to skin cancer.

Shániidíín bits’áádoóó hakági baah ats’íí biitl’óól dah diníisééh áádóó ba’át’e’ hóló yileeh. Hakági t’áadoo hodina’i shániidíín bee hájítihgo láhda bits’áádoóó ats’íí biitl’óól dah diníisééh áádóó ba’át’e’ hóló yileeh.

  From the sun light, on the skin, cells in the body that grow uncontrollably. One’s skin, rapidly, sunlight, with it, aging, sometimes, from it, cells in the body that grow uncontrollably.

  o **Ionizing Radiation** — Ionizing radiation can cause cell damage that leads to the development of cancer. This kind of radiation comes from high energy rays that enter the Earth's atmosphere from outer space, from radioactive fallout, from radon gas that comes from the earth, and from x-rays and other sources.

Yá dóó nahasdzáán bideezla’ ats’íí biitl’óól yilchóohgo láhda bits’áádoóó ats’íí biitl’óól dah diníisééh áádóó ba’át’e’ hóló yileeh.

  From the sky and the earth, exposure to radiation, cell damage, sometimes, from it, cells in the body that grow uncontrollably.

**Radioactive Fallout** can come from accidents at nuclear power plants or from the production, testing or use of atomic weapons (nuclear bombs). People exposed to radioactive fallout may have an increased risk of cancer, especially leukemia and cancers of the thyroid, breast, lung and stomach.

**Radon** is a radioactive gas that you cannot see, smell or taste. It forms in soil and rocks. People who work underground in mines may be exposed to
radon. Radon may get into a house from the soil that is under the house. People exposed to radon are at increased risk of developing lung cancer.

**Medical Procedures** are a common source of ionizing radiation. Health care providers use radiation (low-dose x-rays) to take pictures of the inside of the body. These pictures help to diagnose broken bones and other problems. Health care providers may also use radiation therapy (high-dose radiation from large machines or from radioactive substances) to treat cancer. The risk of developing cancer from exposure to low-dose x-rays is extremely small. The risk from radiation therapy is slightly higher, since stronger doses of ionizing radiation are used in radiation therapy. For both x-rays and radiation therapy, the medical benefit almost always outweighs the small amount of risk.

**Risk Reduction** – Risk reduction refers to actions that we can take for ourselves that may decrease our chances for developing cancer. Examples include: maintain a healthy weight, get at least 30 minutes of exercise each day, don’t use store-bought tobacco, eat a healthy diet, limit consumption or do not drink alcohol, protect yourself from the sun, and protect yourself and your partner from sexually transmitted diseases.

**Side Effects** – Side effects are effects on the person that may be caused by the treatment that they are given for cancer. Some cancer treatments cause conditions that can be very uncomfortable. Some of the most common “side effects” are hair loss, nausea, vomiting and fatigue. There are other side effects that the person may experience depending on what medicine is used. When a person receives radiation treatment they may also experience side effects such as those that are described above. The person may become very sick from these side effects in addition to the sickness they are experiencing from the cancer. These side effects diminish or disappear when the treatment is completed. (There is more information about side effects in the first entry under “Cancer Treatment.”)

**Sigmoidoscopy** – Sigmoidoscopy is the examination of the large intestine from the rectum through the last or lower part of the colon (large intestine). This section is not difficult to reach with care. The doctor uses a thin lighted tube and a little
camera to see inside the colon and rectum and may decide to remove (cut out) one or more small pieces to do lab tests for cancer. Sigmoidoscopy is used for screening for colon and sigmoid cancer. Sigmoidoscopy is similar to but not the same as colonoscopy. Sigmoidoscopy only examines up to the sigmoid, which is the lowest part of the colon, while colonoscopy examines the entire large intestine. (See also the description of sigmoidoscopy in “Cancer Screening” on page 11 of this Glossary.)

Staging – Staging is done by performing tests or surgery to determine the size of a cancer and the extent it may have spread from the place where it started (the “primary tumor”).

In Situ (Stage One) – “In situ” means “in place.” This term refers to a cancer that is still in the location where it began and has not spread or moved to additional parts of the body. It is considered to be curable at this stage.

Local (Stage Two) – A Stage Two cancer is larger than in Stage One and may or may not have spread to nearby lymph nodes.
Cells in the body that grow uncontrollably, in the body, it grows, and, around it, only, when it exists, around it, only, exist, and, lymph nodes, may grow inside it.

- **Regional (Stage Three)** – A Stage Three cancer is larger than in Stage Two and has spread into the lymph nodes. This stage is also called “regional metastasis.”
  
  Ats’îis bitl’ól dah dínísééh áádóó ba’át’e’ hóló yileehígíi hanísánídóó binaagóó ats’îis biyi’dí dínísééh.
  
  Cells in the body that grow uncontrollably, from where it starts to grow, around it, inside the body, it grows.

- **Distant (Stage Four)** – A Stage Four cancer has spread to a different area of the body from where it started. This is also called “distant metastasis.”
  
  Ats’îis bitl’ól dah dínísééh áádóó ba’át’e’ hóló yileehígíi nááná lahgo ats’iistahgóó nahaz’ânígíi biyi’dí dínísééh.
  
  Cells in the body that grow uncontrollably, at another area, among the body, somewhere, inside, it has grown.

**Surgeon** – A surgeon is a doctor who removes or repairs a part of the body by operating on the patient.

  Azee’íil’íní ats’îis neiłgizh éi doodago ats’îis yá’át’ééh ánáyoodliilgo yinaalnish.
  
  Doctor, body, cutting it/doing surgery, or, good/whole, he makes it, works.

**Surgery** – The word “surgery” is used to refer to the medical procedure of treating diseases or injuries by operating on the patient in order to remove or repair a part of the body or to have access into the part of the body where a disease may be present. If the patient is suspected to have cancer, the purpose of the surgery may be to find out if the patient actually does have cancer or the extent of the cancer.

  Ats’îis bitl’ól dah dínísééh áádóó ba’át’e’ hóló yileehígíi hats’îis biyi’dí dínísééhígi t’êi nahgôó haalgishgo hona’anish.
  
  Cells in the body that grow uncontrollably, in the body, it grows, remove by operation.

**Symptoms of Cancer** – There are many different symptoms known to be associated with certain types of cancer. As cancer grows in the body, it causes changes to take place, producing symptoms. The symptoms that appear depend on the size of the cancer, the location, and which organs or body parts are nearby to the cancer. The symptoms are the feelings that the patient has that something is not right inside his or her own body, and they should be promptly reported to the health care provider.

  Ats’îis bitl’ól dah dínísééh áádóó ba’át’e’ hóló yileehígíi hats’îis biyi’dí díníséehgo hatah doo ākohoot’êégóó áyósíígíi bee baa âkozniizižíi.
  
  Cells in the body that grow uncontrollably, in one’s body, when it bothers/harms one, producing symptoms, with it, one will know.

- **Changes in Bowel or Bladder Habits** – Diarrhea, constipation or changes in the size of stool may indicate colon cancer. Pain with urination, blood in the urine or feces, or change in bladder function or difficulty urinating could be related to
bladder or prostate cancer.

Sometimes, colon, and, bladder, and prostate, inside, cells in the body that grow uncontrollably, diarrhea, constipation, changes in the size of stool, painful urination, blood in the feces, or difficulty urinating.

- **Sore that Stays for a Long Time**  — Skin cancers may bleed and resemble sores that do not heal. Sores in the mouth that do not heal may indicate oral (mouth) cancer, especially if the person smokes store-bought tobacco, chews tobacco, or frequently uses alcohol. Skin or mouth, sore, stays for a long time.

- **Unusual Bleeding or Discharge**  — Blood in the sputum (spit or saliva) may indicate lung cancer. Blood in the stool may indicate cancer of the colon or rectum. Abnormal bleeding not related to menstrual periods may indicate cancer of the cervix, vagina, or uterus. Unusual, spit saliva, blood, in it, sometimes, lung, cells in the body that grow uncontrollably. Stool, blood, among it, colon, rectum, cells in the body that grow uncontrollably. Woman, any time, blood, discharging, sometimes, reproductive organs, inside it, cells in the body that grow uncontrollably.

- **Thickening Lump, Swelling**  — Many cancers can be felt through the skin, particularly in the breast, testicle, lymph nodes (glands) and the soft tissues of the body. Any lump or thickening should be reported to your health care provider. Thickening, somewhere, swollen, become, or, when it is hard, inside it, forms.

- **Indigestion, Feeling Bloating or Difficulty Swallowing**  — Indigestion, feeling bloated (but not actually being bloated) or difficulty swallowing may indicate cancer of the esophagus, stomach, or pharynx (throat). Indigestion, feeling bloated or difficulty swallowing, may cause, indigestion, feeling bloated or, difficulty swallowing.

- **Recent Changes in a Wart or Mole**  — A change in color, loss of definite borders (edges), or an increase in size of any wart or mole should be reported to the doctor without delay. The skin lesion may be a melanoma, which, if diagnosed early,
can be treated successfully.

Hazęęé éi doodago hazhiin náás áanił dóó łahgo át’é yileeh.
One’s wart, or, one’s mole, forward, it spreads, and it changes, become.

- **Nagging Cough or Hoarseness** – A persistent cough that does not go away may be a sign of lung cancer. Hoarseness can be a sign of cancer of the larynx (voice box) or thyroid.

  Ayóo jidilkosgo éi doodago hazhi dah deeshzhah nahalingo yàjilt’ jizlij’. Kót’éego hazooftsj’ báah ats’íis bitl’óól dah diniisééh ááoóó ba’át’e’ hóló yileeh. Very much, when one coughs, or, inside one, scratchy like, one talks, become. When one becomes that way, one’s voice box, on it, cells in the body that grow uncontrollably.

- **Unexplained Symptoms** – Unexplained symptoms are symptoms that are vague or general and do not have any obvious explanation. A person should see their health care provider to be evaluated to determine the cause of the unexplained symptoms, especially if the symptoms have been present for a period of time (such as several weeks).

  Feeling symptoms that do not have any obvious explanation.
  T’áadoo hooýání dóó t’àadoo át’éhégóó t’óó haashíí jít’éé lèh. Suddenly, and, without cause, just, somehow, one feels.

  - weight loss when someone is not dieting to lose weight
    Hats’ííní jooleel.
    One skinny, one is becoming.

  - fever that doesn’t go away
    T’àáhóo hóonéezgáií hóot háonéezgái.
    Among one, it is painful/feverish.

  - fatigue for no reason and it does not get better with rest
    Nizhdínéesdzááh dóó doo hwiinéída.
    One’s body is tired.

  - pain that doesn’t go away
    T’àá jidiniíí jidiniíí.
    One is in pain, or, with one, painful/hurting.

  - having an intuition or sense that something is wrong
    Hats’íís éi doodago ha’át’íí shíí hoł halne’go t’àá hó baa ákozhnízin.
    One’s body or, something, with one, communicate, one knows.

**Testicular Cancer** – Testicular cancer is cancer that forms in tissues of the testis (the egg-shaped organ inside the scrotum that makes sperm and male hormones). Testicular cancer usually occurs in young or middle aged men. There are two main types of testicular cancer – one type that grows slowly and is sensitive to radiation therapy and a second type that grows more quickly. This disease is treated very successfully if detected early.
• **Testicular Self Examination (TSE)** – A Testicular Self Examination is when a man checks his own testicles to detect any lumps or growths that might indicate an abnormality in the tissue.

  Dinééh éi doodago hastóí bicho’ biyéezhíi biyi’di ats’íis bitl’óól dah dinísééh áádóó ba’át’e’ hóló yileehe. Kot’éego áæh dahoo’aahíí naaki ál’áæh át’é, ła’ doo hah nooseèelda dóó ła’ éi t’áá txixíggo naníše’.

  Young men, or, older men, his sperm, where it is made, inside it, cells in the body that grow uncontrollably. When he becomes that way, illness, two, different types; one grows slowly, and, one grows fast.

Tissue – A tissue is a group or layer of cells that are of the same kind and that work together to perform a specific function. Most organs of the body have several different types of tissue, such as the layers of tissues that make up a stomach or the different tissues that make up an eyeball.

  Ats’íis bitl’óól éi alk’inaazkaad, t’áálá’ígíi danilíníígíi dóó ahíl ndaahníshgo ats’íis yee naalnish. Ats’íis biyi’ siléii éi t’áá ál’áa ádaat’éeo yee hadít’é, abid dóó anáá’ ákót’é.

  Body cells, are in layers, they of the same kind and work together, the body works with it. Body, inside, organs, are different ones, it is made up, the stomach and eyes are like that.

Treatment

• **Local Treatment** – Local treatment is a treatment or medicine that is applied only to the diseased area of the body.

  Ats’íis bitl’óól dah dinísééh áádóó ba’át’e’ hóló yileeheégíi hats’íís íiyísíí yainit’íigí dóó binaagi bina’anish.

  Cells in the body that grow uncontrollably, only on one’s body, where it bothers it, at that area, treatment.

• **Systemic Treatment** – Systemic treatment is a treatment or medicine that will reach and affect the entire body even if the disease cannot be seen everywhere.

  Ats’íístahgóó t’áá át’é azeé’ baąh ál’í.

  Throughout one’s body/among one’s body, just all of it, medicine, on it, applied to/treated.

Tumor – A tumor is an abnormal mass of tissue that results when cells multiply more than they should or when they do not die when they should. Tumors may be benign (not cancerous) or malignant (cancerous). A tumor may also be called a “neoplasm.”

  Hats’íis biyi’di ats’íis bitl’óól dah dinísééh áádóó ba’át’e’ hóló yileehe éi doodago haashíí nízáh bá ndaahníiít’í yée bilááhóó yooníísél. Kot’éego hats’íístahdí haa’ída dinéésáago éi ła’ doo ba’át’e’ hólóogóó t’áá láhíí hahsh’t edit’é.

  Ła’ ba’át’e’ hóló yileehego t’áá bòhónííghóó dinísééh dóó hóóts’íí yéégo yaah dahoo’l’aah. One’s body, inside it, cells in the body that grow uncontrollably, or,
they live beyond their time. When it becomes that way, among one’s body, somewhere, growing, that, one, not, harmful, existing, in one place it stays.

One, malignant, existing, just, anywhere, grows, and, one’s body, very, on it, harms it.

- **Benign Tumor** – Growth (lump) of cells that is not harmful. A tumor that does not spread to invade other areas of the body that were not already affected.
  
  Ats’íis bitl’óól doo ba’át’e’ hólóógoóó diníséeh éí doodago hatsí’ bií ni’als’tí’go doo ba’át’e’ hólóógoóó diníséeh. Hats’íis kót’éego nooséelfígíi éí t’áá láhhíi hasht’edí’e, doo nááná háajigo hats’íis biíh níséeh da.
  
  Cells, among the body, not, harmful, that way, as it grows.
  
  One’s body, in this way, that grows, that, at one point, stays, not another, to a different place, one’s body, it does not grow into a new area.

- **Malignant Tumor** – A malignant tumor is an abnormal mass of tissue (cancer) that results when cells divide more than they should or do not die when they should. Malignant tumors are generally more serious than benign tumors. They may be life-threatening. Malignant tumors often can be removed, but sometimes they grow back.
  
  Cells from malignant tumors can spread or travel (metastasize) to other parts of the body (such as to nearby lymph nodes). Cancer cells spread by breaking away from the original (or “primary”) tumor and entering the bloodstream or lymphatic system. The cancer cells can invade other organs and form new tumors that damage those organs.

Ultraviolet (UV) Rays (Ultraviolet Radiation) – Ultraviolet rays are high energy invisible rays that are part of the energy that comes from the sun. UV radiation also comes from sun lamps and tanning beds. UV radiation can damage the cells in the skin and cause melanoma and other types of skin cancer. UV radiation that reaches the Earth's surface is made up of two types of rays, called UVA rays and UVB rays. UVB rays have greater energy and are more likely than UVA rays to cause sunburn, but UVB rays pass deeper into the skin. Scientists have long thought that UVB radiation can cause melanoma and other types of skin cancer. They now think that UVA radiation may add to skin damage that can lead to skin cancer and also cause premature aging of the skin (such as wrinkles and age spots). For this reason, skin specialists recommend that people use sunscreens that reflect, absorb, or scatter both kinds of UV radiation. The chíih that Navajos use (red clay mixed with mutton fat) also provides good protection from UV radiation.

Jóhonaa’èi bits’áziil doo yít’íini naaki ał’a’ah át’éego bits’áziil, UVA dóó UVB bee wójí, éi ayóó bií’ nijgháago ats’íis bitł’óól dah diníséeh áádóó ba’át’e’ hóló yileehígíi hakáá’ diníséeh.

Sun, its rays, not, visible ones, two, different, when one is like that,
Watchful Waiting – “Watchful waiting” is a term that is used to describe careful observation (monitoring) of a cancer patient’s disease through ongoing testing and follow-up instead of beginning treatment immediately with chemotherapy, radiation, or surgery. This approach may be taken with a disease that is known to be slow growing so there is not an urgent need to begin treatment, especially when that treatment is likely to have a lot of uncomfortable side effects. For example, “watchful waiting” is often used in relation to patients with early prostate cancer. However, the patient should be sure to follow up with their doctor during the following months and years to make sure that the cancer has not returned during the period of watchful waiting.

Cells in the body that grow uncontrollably, not, growing fast, with it growth, only, one gets seen by visiting a doctor. Doctor, often, visit him/her, carefully working with them, one is cared for, and one is taking care of self.
APPENDIX I.

Additional information that we decided not to include in the “basic” Glossary.

Cancers are divided into five main groups:

Ats’íís bitl’óól dah diniiséeh áádóó ba’át’e’ hóló yileehíí ashddla’ ál’a át’éeego dah naazhjaa’:
Cells in the body that grow uncontrollably, five, different, types, in groups:

- **Carcinoma** (see the full entry on page 9)
- **Sarcoma** – A sarcoma is a cancer that begins in bone, fat, muscle, nerve, joint, blood vessel, or deep skin. It is a spreading cancer that grows from tissues (flesh) that connect different parts of the body together, such as bones, tendons (which attach muscles to bones), cartilage (found in the joints and in other places), muscle and fat.
  
  Ats’íís bitl’óól dah diniiséeh áádóó ba’át’e’ hóló yileehíí hats’ín biyi’dí, hak’ah bitahdi, hadoh bitahdi, hats’óóz bee ajinihihi biyi’dí, ahadazhdít’áágí, hats’oos biyi’dí, éí doodago hakági alk’ih sikaadíí biyi’dí diniiséeh.
  
  Cells in the body that grow uncontrollably, one’s bone, inside it, one’s fat, among it, one’s muscle, among it, one’s nerves one feels with, inside it, at one’s joints, in one’s blood vessels, or, deep inside one’s skin, it grows.

There are five basic types of Sarcoma.

- **Osteosarcoma** – Bone cancer.
  
  Hats’in biyi’dí ats’íís bitl’óól dah diniiséeh áádóó ba’át’e’ hóló yileeh.
  
  One’s bone, inside it, cells in the body that grow uncontrollably.

- **Fibrosarcoma** – Cancer that develops from fibrous or connective tissue, such as the tissue that normally forms tendons and ligaments.
  
  Hats’id dóó ooshgéézh biyi’dí ats’íís bitl’óól dah diniiséeh áádóó ba’át’e’ hóló yileeh.
  
  One’s bone, and cartilages, inside it, cells in the body that grow uncontrollably.

- **Rhabdomyosarcoma** – Cancer of skeletal muscles (muscles that control voluntary movement; muscles that make the bones and joints move).
  
  Ats’íís bitl’óól dah diniiséeh áádóó ba’át’e’ hóló yileehíí hadoh hats’áoz’a’ neiyiñáhíí biyi’dí diniiséeh.
  
  Cells in the body that grow uncontrollably, one’s muscle, the one that moves the limbs, inside it, it grows.

- **Leiomyosarcoma** – Cancer that develops from smooth muscles (also called involuntary muscles, such as in the intestines and stomach).
  
  Ats’íís bitl’óól dah diniiséeh áádóó ba’át’e’ hóló yileehíí
Cells in the body that grow uncontrollably, one’s muscle, one’s intestines and stomach muscle, inside it, it grows.

- **Liposarcoma**  – Cancer of fatty tissue.
  Ats’ís bitl’óól dah díníis’éh áádóó ba’át’e’ hóló yileeéhigii
  ats’ís bitl’óól ak’ah biyi’di hólónigii bií’ díníis’éh.
  Cells in the body that grow uncontrollably, body cells in the fatty tissue, it grows in it, cells in the body that grow uncontrollably.

- **Leukemia**
- **Lymphoma** (see the full entries for these 3 items on page 10)
- **Myeloma**

---

**Chemotherapy Classifications:** Types of Chemotherapy Medicines (Drugs)
The chemicals that are used to treat different types of cancer work in different ways and they also have different effects on the body of the person being treated.
The healthcare provider should explain these different types of medicines and their effects before beginning to treat the patient with one of these medicines.

- **Alkylating**  – The effect is not limited to a specific period of cancer growth. The medicine interferes with the development of the cancer cells. Cytoxan may cause bleeding from the bladder, and Cisplatin may cause kidney damage and commonly causes a large amount of vomiting.

- **Anti-Metabolites**  – The effects are limited to a specific period of growth of the cell. These medicines interfere with all stages of the beginnings of the cancer cells. 5FU can be in a lotion form and applied like cream to the skin, or also in the form of a liquid to go into the veins.

- **Anti-Tumor Antibiotics**  – These medicines have non-specific, multiple actions. The effects are not limited to a specific period of cancer cell growth and these drugs work in the same way as antibiotics to kill the cancer. Adriamycin is known for causing a high risk for heart complications. Bleomycin is known to cause the lungs to become fibrous and to make it difficult to breathe. Both of these drugs have a limited amount (dosage) that a person can receive during their lifetime.
Plant Alkaloids – The effects are limited to a specific period of cancer cell growth. They interfere with the ability of the cancer cells to multiply. Taxol may cause a slow heart rate while it is being given to the patient.

Hormones – These are molecules that are made by the body and that may interfere with the cancer’s surroundings and make it difficult for the cancer to grow.

Anti-Angiogenesis – These medicines prevent blood vessels from growing in the area around the tumor. All cells in the body require a regular supply of blood, which provides them with oxygen and nutrients for growth. A major area of recent advances in cancer research and treatment is the development of drugs that prevent or inhibit the growth of new blood vessels (angiogenesis) into areas where the cancer cells are growing. Since cancer cells typically grow very rapidly, this treatment slows down or inhibits the growth of the cancer cells by preventing or inhibiting the growth of new blood vessels in the area around the cancer cells.

The Goals of Chemotherapy are to cure the cancer, control the disease, or control the effects of the symptoms of the disease, while causing as little damage as possible to the normal healthy cells in the person’s body.

Phases of Clinical Trials

- **Phase I Clinical Trial** – The goals are to evaluate how a new medicine should be given (by mouth or by injection, for example), how much should be given in each dose and how often it should be given. There is a major emphasis on whether the new medicine would be safe (even if it does work), what its side-effects might be, and what safety guidelines should be used when giving this medicine to a patient.

- **Phase II Clinical Trial** – The goals are to study and determine the safety of the medicine as well as the action or effectiveness of the medicine. For a new cancer medicine, a Phase II Clinical Trial will also study how it works with specific types of cancer and how successful it is when fighting the type of cancer for which it will be prescribed.

- **Phase III Clinical Trial** – The goals are to determine the ability of the patient to survive the disease (such as cancer) as a result of being treated by the new medicine and also to compare the new medicine to other methods of treatment to see if the new medicine improves the patient’s length of life and quality of life.

- **Phase IV Clinical Trial** – A Phase IV Clinical Trial is usually done after the new medicine has already been approved for use with patients, in order to further evaluate the long-term effectiveness and safety of the new medicine and possibly also to test the medicine for other uses (perhaps for use in treating other diseases) and for other dose amounts (larger or smaller doses) that might be used.
APPENDIX II.

Explanatory notes from various discussions of the “Glossary Working Group.”

Navajo language terms that have been used in the past to refer to cells:

- Iiná bik’óó’  Life, its seed
- Ats’íisk’óó’  Body seed
- Hinááhts’óóz  Life cell
- Hiinááh ats’óóz  (similar, from some older materials)

A presentation on the draft Glossary was made in January 2007 to a group of nurses and health educators who work with cancer patients. They reported that they used the cancer term atát’ah nanise’ doo yá’át’ééhígíí. They also discussed the more familiar terms

- Hinááh
- Hinááhts’óóz

The Glossary working group discussed this further and decided to continue using the word Hinááh for cell. Others also voiced concerns over the new term atát’ah nanise’ as this was the first time they had heard of the usage of that term for cell.

Hats’íistah, hats’íistahdi hats’íis ha’á’ida
Among the body, among the body, at, one’s body, somewhere.

Ats’íis biyi’ ha’a’ida nooyéél sillí’.
Body, inside it, somewhere, a fast growth, it became.

T’áá ádzaagóó nooséél.
Just any direction, it is growing.

T’áá bóholníhgoó nooyéél.
Just anywhere, it is growing fast.

T’áadoo ééhózingóó nooséél.
Just without known direction, it is growing.

T’áadoo ééhózingóó nooyéél.
Just without known direction, it is growing fast.

T’áá ádzaagóó díníséél.
Just any direction, it starts to grow.
In April 2009, Susie John, Ida Bradley, Sally Joe and Martha Austin-Garrison were discussing the recent “Community Conversation on Genetics” conducted at the Shiprock Campus of Diné College. **They arrived at the consensus agreement that:**

**DNA in cells** should be called

\[ \text{iiiná bitl’óól} \] ("life cells").

**Cells of the body** should be called

\[ \text{ats’ís bitl’óól} \] ("body cells").

**These are the terms (immediately above) for “DNA” and for “Cells” that have been used in the development of this edition of the Glossary.**

**In the Navajo language there are two ways to view abnormal growth:**

1. **Nooséél.** This refers to the growth from its earliest beginning toward its completion, like the way a seed would grow to be a normal tree or plant. This is a normal state of growth and development. However, when the adverbial phrases t’áá ádzaagóó – “just without direction” or t’áadoo ééhózingóó – “just without knowing where” (probably refers to “without a definite plan” or “without a defined normal pattern”) are used with nooséél then it explains the abnormal growth or growth that is out of control.

2. **Nooyéél.** This refers to spreading and it means a multiplication of something. This phenomenon could be a normal process of a kind of growth. Again, when the phrases t’áá ádzaagóó and t’áadoo ééhózingóó are placed before nooyéél then they explain the nature of this growth that is out of control.

The Glossary working group members felt that **nooséél “it is growing and developing”** is the best description because nooséél creates an image of growth from a small beginning to some end. As Dr. Susie John noted, this concept lends itself much more effectively to the diagnosis and treatment goals of early detection and intervention, since early detection and intervention provide the greatest benefits to the patient when (tumor) growth is still in the small beginning stage.
Abnormal growth begins with mutation of normal cells. Mutation can result in uncontrolled growth. To explain why mutation happens, Glossary working group participants explained that as follows:

Hinááh tidił’iíhgo t’áá bóhólníihgoó nooyéél yileeh
When a cell is injured (also “affected” or “harmed”)
just without direction, spreading, it becomes.

The group discussed whether “injured” is the correct description. However, in clinical interpretation scenarios, an identification or assumption of the cause is usually provided to make sense of what has happened to the body. The members of the Glossary working group discussed and listed some known causes:

1. Genetic factors – bił azhchíi; bił oochiil silii’go
2. Reasons for mutation – uncontrolled growth and development:
   a. Virus
   b. Sunlight
   c. Radioactivity
   d. Chemicals
   e. Toxins from air, water, and other pollution

It was noted that cancer begins at the point of mutation in a cell. Discussion followed, and there was a consensus on the explanation below:
Nizhónigo haats’iiis nooséél haah’ishii choolzhishgo lahgo át’iíh.
Doo ákót’éégó dah diníisééh.
In a normal and healthy way the body grows and at a certain time it changes.
In an incorrect way it begins to grow.

Growth (of a tumor) has a beginning; the sooner detected, the better for life. These statements are often used by providers in the clinical setting:
Doo ách’i’ ni jódlíida.
Not, toward one self, expected to happen.
Ha’át’iísh biniiyé ádaałh yit’ií doo.
What reason for, that one does not want to detect it.
Doo bee ach’ááh na’anishda.
One should not avoid it.
From the Meetings at the Northern Navajo Medical Center, Summer 2007

Cancer
Ats’iis bitl’óól dah dínisééh áádóó ba’át’e’ hóló yileehígíí
Hak’aasht’ah nanise’

Prevention:
T’áá bitséedi ádaa áháýá

Risk:
Bits’áádóó ohodiit’ihígíí

Treatment:
Bee bik’iji’ na’anishígíí
Bee ni’ ádoonnilígíí
Bidééñíñígíí
Bidídóoolníñígíí
Bee bii’ hazhooogálígíí
Bee yisdázhooogálígíí

<table>
<thead>
<tr>
<th>Survival rate</th>
<th>Singular form</th>
<th>Distributive Plural form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yii’ hááyahígíí</td>
<td>yii’ haakaiígíí</td>
<td></td>
</tr>
<tr>
<td>Bií’ háádzoodzáhiígíí</td>
<td>bií’ hajookaiígíí</td>
<td></td>
</tr>
<tr>
<td>Yikáá’ hááyahígíí</td>
<td>yikáá’ haakaiígíí, yikáá’ hahaaskaiígíí</td>
<td></td>
</tr>
<tr>
<td>Nidzoodzi’ígíí</td>
<td>nídaadzi’ígíí</td>
<td></td>
</tr>
<tr>
<td>Yik’eh deesdl’ígíí</td>
<td>yik’eh dadeesdl’ígíí</td>
<td></td>
</tr>
<tr>
<td>Yisdááyahígíí</td>
<td>yisdáákaiígíí, yisdáhaaskaigíí</td>
<td></td>
</tr>
</tbody>
</table>

The “Five Ladies of the NNMC” met on February 12, 2008, and considered which terms they needed to focus on. They decided to look again at the Cancer 101 curriculum and at the Diabetes Glossary materials, and that there were about 3 or 4 terms that should receive special attention. They agreed to *reverse some of the Navajo word order*, so that the site would be identified first, followed by the cancer description:

**Lymphoma:** ats’iis bitl’óól ba’át’e’ dínisééhígíí hakáázt’s oos biyi’di
We probably should reverse that, to site first and then cancer.

**Hakáázt’s oos biyi’di** ats’iis bitl’óól ba’át’e’ hólóogo dínisééh.
Reverse the word order; the same for prostate cancer (immediately below).

**Halizh bikááz biyi’di** ats’iis bitl’óól ba’át’e’ hólóogo dínisééh.
Discussion on **Lymphatic System** (Lymph Nodes) and **Endocrine System** (Glands)

The **lymphatic system** parallels the **circulatory system**, leading to potential confusion. Ida suggested the functional distinction that the lymph system acts as a filter - kááž, which differs from the capillaries, arteries, veins, nerves, endocrine glands, etc.

Ida: Alk’idáá’ éí łóód doo nádziihii dabidii’níí nít’éé’ then I use the new term. Long ago, that, sore, does not heal, we used to call it. They know what I am talking about.

Ida: ats’óóz nerve ats’oos blood vessels
Akááž bits’óóz to me, that is the nerve

Lymph system to me is éí akááž dah yikahjí

**Gland** — because they **produce**, they do **not filter**. They produce, éí alohk’e’ dah yikahjí, just like the pancreas, éí alohk’e’ dah yikahjí, similarly for the thyroid, it produces, it is not a filter. The lymph nodes éí they are filters, that is why we call it akááž éí all the lymph nodes, they are filters. The first akááž I learned about is the tonsil, éí éí akááž át’é.

tó biyáázh — small unit of fluid
tó álnáshchíín — male fluids, mixes with female fluids to make the baby (goes back to the Origin Myth)

hats’oos — anything to do with the circulatory system
hats’óóz — nervous system
FEEDBACK AND SUGGESTIONS

For a period of more than 3 years (from the Fall of 2006 through the Fall of 2009), a core “Glossary working group” of more than a dozen persons met about 50 times to develop this Glossary. This core group is listed and described as the “Major Contributors to the Working Group that Produced this Navajo Cancer Glossary” at the beginning of the Glossary. There were an equal number of additional participants who attended one or more meetings on an occasional basis. Nearly all of the Glossary entries were discussed multiple times, with different combinations of persons, and many of these discussions involved lengthy dialog in the Navajo language. One of the key elements of the Mission of Diné College is to strengthen the study of the Diné language and culture, and the extended “deep knowledge” discussions in the Navajo language on these topics of culture, health and disease provided significant satisfaction to all of the participants in this process.

Nevertheless, we are well aware that knowledgeable persons will have different preferred ways of describing the topics in the Glossary in different ways, in both Navajo and English. We intend this to be a “first edition” of the Glossary, and the collaboration between Diné College and Mayo Clinic which resulted in the development of this Glossary will continue for years to come, so we definitely expect to produce a revised “second edition” and perhaps more revised and/or expanded editions in the future. Accordingly, we sincerely solicit your comments, suggestions for additional entries or revisions to the entries presented here, and, especially, corrections in either English or Navajo that users of this Glossary would like to submit to us. The “Glossary working group” will continue to function (meeting at the Shiprock Campus of Diné College) as an advisory group for additional cancer-focused projects and activities of Diné College and Mayo Clinic, and this group would gladly accept comments and suggestions from Glossary users. Such comments and suggestions should be addressed to Dr. Garrison (contact information below), but specific comments regarding the Navajo terminology and texts should be addressed to both of the persons identified below. We thank everyone who finds this Glossary to be of value, and hope that this resource will be widely used within both the provider community and the general community of the Navajo Nation.

Edward R. Garrison, PhD, MPH  
Faculty, Biology and Public Health  
Diné College  
P. O. Box 580  
Shiprock, New Mexico 87420  
(505)-368-3583  
ergarrison@dinecollege.edu

Martha A. Austin-Garrison, MA  
Faculty, Center for Diné Studies  
Diné College  
P. O. Box 580  
Shiprock, New Mexico 87420  
(505)-368-3650  
maustin@dinecollege.edu
Printing expenses for this First Edition generously provided by the Kayenta Public Health Nursing Program, a department within the Navajo Nation Division of Health.

This Glossary has been produced through the use of public funds, and accordingly is not to be sold or otherwise used for monetary gain.