

Caduceus

A PUBLICATION OF THE MEDICAL DIVISION OF THE AMERICAN TRANSLATORS ASSOCIATION

SPRING 2008

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HIPPOCRATES

SURGICAL PERSPECTIVES

A NEW REGULAR FEATURE

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Earlier Times



Spring 2008



Caduceus is a quarterly publication of the Medical Division of the American Translators Association, a non-profit organization dedicated to promoting the recognition of translating and interpreting as professions.

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This issue features the beginning of a new regular column titled Surgical Perspectives by Dr. José R. Martí, M.D., who takes us on a retrospective look from early times through the better known surgical high points in American medicine, and up to the present moment.

Healthcare interpretation is well represented in this issue. Cynthia Roat is a consultant and trainer on issues related to healthcare. She is the principal author of the widely used training program Bridging the Gap, for medical interpreters in the US and, also, a founding member of the National Council of Interpreting in Healthcare. She has updated for the Medical Division her previously published article in the ATA Chronicle: Health Care Interpreting, An Emerging Discipline. Zarita Araujo and Vonessa Phillips Costa, in their regular column, look at the advocate role in medical interpretation.

Dr. Jim McAninch continues his series in Hematology and Dr. Elena Sgarbossa introduces us to new terms and acronyms in her Pitfalls and Caveats regular column.

The Skinny on Obesity is a sober look at the current extraordinary rise in obesity in the US with a direct look at childhood obesity and the current use of bariatric surgery as a successful treatment modality.

Suzanne Couture continues her series on the various areas of Health Care with a listing of terminology that relates to time - WHEN.

Resources is a listing of on-line links of interest to medical translators and interpreters.

Instructions to Authors

Submissions for publications must be sent electronically in Word format. The deadline for submissions for the Summer issue of *Caduceus* is 1 May, 2008.

Caduceus carefully reviews its content in order to eliminate any textual errors. Nevertheless, we apologize for any errors in grammar, punctuation, typography and the like which may inadvertently appear on our pages.

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by Esther Diaz

Spring is in the air and with it comes another great issue of *Caduceus*. Thanks to our Newsletter Editor *par excellence*, Rafael Rivera, and our contributing authors who so generously share their knowledge.

It was good to see those of you who attended the Medical Professional Development Seminar in Houston. We will have a review and a cardiovascular glossary from the seminar in the next episode of *Caduceus*.

Do you have a special area of expertise? If you would like to share your knowledge, we always welcome articles for *Caduceus*. Another great way to share your knowledge is to give a presentation in your area of expertise at the Annual ATA Conference. This year's conference will be held at a resort in beautiful

Orlando, Florida. Do you have a respected colleague who needs a little encouragement to submit a proposal for a presentation? We are currently searching for a physician to be the Medical Division's distinguished speaker at the Annual Conference. If you know a good candidate for this opportunity, please contact me at mediaz@austin.rr.com.

Be on the lookout for a survey coming your way in the near future. It's your opportunity to provide input on the services you would like to receive as a Medical Division member.

Please express your wishes – we're listening!



PLANNING AHEAD

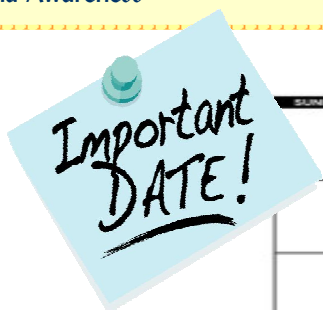
Caduceus

Summer 08 Issue



In the Summer, 08 issue of *Caduceus*

- Community Interpretation in Canada's largest city - A snapshot of the present and a vision of the road ahead, by Elizabeth Abrahams.
- All About Memory -- To Have and To Lose -- Alzheimer's and other problems
- Trilingual Cardiovascular Glossary
- Anesthesia Awareness



NOVEMBER 2008

| SUNDAY | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY |
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ANNUAL CONFERENCE

Hilton & Disney World, Orlando, FL

by José R. Martí, M.D.

A brief review about the history of Surgery

It is hard to pinpoint precisely the very beginnings of medicine and surgery and it is astonishing to see how primitive doctors pulled off so many cures, despite their rudimentary theories of disease. The American surgeon, Dr. Oliver Wendell Holmes (1809-1894) wrote this by the end of his illustrious medical career:

“There is nothing men will not do, there is nothing they have not done to recover their health and save their lives. They have submitted to be half-drowned in water and half-choked with gases; to be buried up to their chins in earth, to be seared with hot irons like galley slaves, to be crimped with knives like codfish, to have needles thrust in their flesh and bonfires kindled on their skin, to swallow all sorts of abominations and to pay for all this as if to be singed and scalded were a costly privilege, as if blisters were a blessing and leeches a luxury”.

In fact, poisons like curare and other drugs such as hemp, opium and eucalyptus are older than history. The Iroquois cured scurvy with the bark leaves of the hemlock spruce and the ancient Peruvians used coca leaves to ease pain and fatigue. Fractures and wounds were ably set and dressed even at the beginnings of mankind. The ancient Chinese were practicing acupuncture before the turn of the 5th century and the Egyptians have given us great insight about skull surgery to relieve brain hemorrhages.

However, it was *childbirth* which gave us the closest glimpse of evolution in this field. It was well managed, mostly by women. In fact, the first doctors

were probably women. From the earliest days, to a time yet within our memory, it was the woman who healed. Medicine was largely empirical and not well documented during all these decades and even centuries.

Hippocrates, during the age of Pericles (5th century BC) in Greece, has been credited with giving prominence to rational medicine and medical ethics. He wrote various works basing “prognosis” upon general pathology. He was a teacher as well as a practitioner and wrote the famous oath (that is ascribed to him); which remains today the official swearing moment of entry into the medical profession. On the other hand, Greek medicine shows no essential advances compared to the medical and surgical knowledge of Egypt a thousand years before. Greek developments seem to have fallen short of the Egyptian, Chinese or ancient American tribes even in the matter of specialization. However, we must hold the Greeks in high esteem, for it was not until the nineteenth century of our era that any substantial improvement was made upon the medical practice or theory following the teachings of Hippocrates.



Abu al-Quasim al-Zahari also known as Abulcasis (963 – 1031 AD) might be the only possible exception.

This medieval surgeon, poet and cosmetologist with origins identified as Iberian-Arabic, wrote a 30 volume encyclopedia, known in Arabic as the *Altasrif*, describing medical theories and practices. He described the use of catgut threads to tie bleeding vessels, instead of cauterizing them. He is also credited with inventing the forceps to extract dead fetuses, among several other surgical instruments.



Things remained rather unchanged until the eighteenth century. In fact, Napoleon asserted that his doctors and their medicines had done more harm than good, and that they would have more deaths to answer for at the Last Judgment than the generals.

In contrast, Dr. Rene-Theophile Laennec, a contemporary of Napoleon, accomplished something worth of notice - he helped design and perfected the stethoscope, which allows the physician to hear breath and heart sounds. This instrument, which many of us take for granted now, changed the way cardio-thoracic medicine and surgery was practiced for many decades to come.



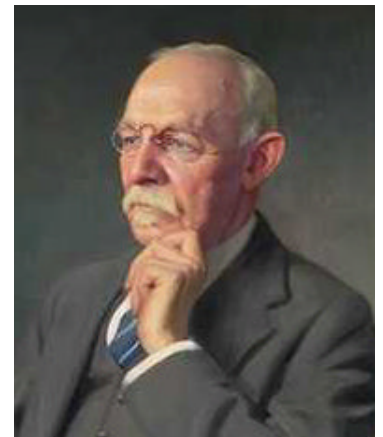
Dr. Theodore Billroth

It was around the end of the 18th century, also in Europe, that modern surgery started to evolve. The discovery of new antibiotics and new developments in anesthesia stimulated an unprecedented growth in this field. New surgical techniques, such as stomach, gallbladder and thyroid surgery, became not only safe, but standard on many occasions. Dr. Theodore Billroth (1829-1894) was an Austro-German surgeon who designed the basics of gastric surgery and is considered to be the founder of modern abdominal surgery. He explained the principles about the formation of stomach ulcers based on personal experiments and observations. His surgical procedures are not practiced often any more, mainly due to a better understanding of the pathophysiology of gastric ulcers and to modern pharmaceutical discoveries, such as the histamine H₂ receptor antagonists. These latter drugs appeared in the market around mid-1980s and helped to keep

stomach acid production low for prolonged periods of time. They have replaced traditional antacid medications and reduced the need for gastric surgery to cure peptic ulcers. Recently, other modern procedures - which do not require a formal abdominal exploration - have also made those pioneering efforts obsolete. Dr. Billroth was also a pioneer in surgery of the thyroid, which remains rather unchanged even today.

Dr. William Halstead was a prominent surgeon in America and chairman of surgery at the Johns Hopkins University Hospital during the same period of time. He became acquainted with some of the famous German surgeons that dominated medicine then and traveled to Europe often for scientific exchange of ideas. Advances in anatomy and anesthesia, as well as the development of new antibiotics expanded this merging trend well beyond the 19th century.

The intellectual, scientific and artistic exchange between Europe and America became a popular trend here in America. This interaction led Dr. Halstead to develop "apprenticeships" which eventually evolved into the modern surgical residency training programs as we know them today; not only in surgery, but in other specialties as well.



Dr. William Halsted

The Second World War erupted and that growth and cooperation that nurtured the basic elements in modern surgery throughout Europe and America was suddenly interrupted. However, this opened a new insight on traumatic war injuries. This field continued to grow even more with the Korean and later the Vietnam wars. Rapid mobilization of injured soldiers to MASH units, modern anesthetic techniques and rapid fluid resuscitation became the object of new research.

These developments helped surgeons in the mid 1950's develop other forms of elective surgery, with cardiovascular surgery at the forefront. The new era of open-heart surgery began. Dr. Michael De Bakey was at the forefront in this field, also credited with the design of several surgical instruments. Other surgical disciplines, such as organ transplantation and cancer surgery started to grow as well. This exciting and productive trend stimulated growth in other areas of medicine too, such as immunology and endocrinology. Surgery up until then was in the hands of talented surgeons and scientists with unique and individual skills. However, yet another technology was about to change the history of medicine in an unprecedented way, like never before.

The discovery that fiberoptics had an application in medicine started a whole new era that would transform the practice for centuries. It all began by early 1980 with fiberoptic sigmoidoscopy, wherein a flexible scope with internal lighting devices replaced the standard rigid metal tube to examine the rectum and lowermost colon with an external light source. The new procedure was much more comfortable for the patient and the manufacturers eventually created a longer scope that would allow the physician to examine the entire length of the colon - the colonoscope. The technology was also applied to the upper respiratory and digestive tracks allowing safe and easier visualization of the esophagus, stomach and duodenum, or the respiratory passages (bronchi).

The aforementioned technological advances were then adapted to closed body cavities - the age of laparoscopy had arrived. Now physicians could perform small puncture wounds in the abdomen and introduce scopes to examine the peritoneal cavity and its contents, the gallbladder and even the gynecological organs in the pelvis. Progress would not stop there. Up until now, those procedures required both hands of the surgeon to manage the instruments until a computer chip TV adapted to the scope was invented a few years later, freeing the hands of the surgeon to perform more complex surgical procedures. A laparoscopic clip applier was

developed in France at the same period and the era of the laparoscopic cholecystectomy was born. This technique would make the traditional cholecystectomy, through a large abdominal incision, rare, almost obsolete. The pioneer in this field was the surgeon Dr. Eddie Joe Reddick.

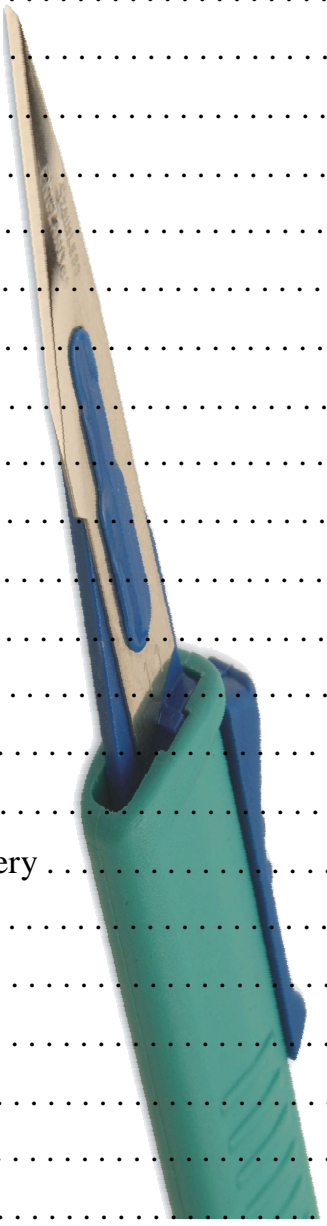
Technical advances continued to grow. A new specialty was born: Minimally Invasive Surgery. The changes reached gastrointestinal surgery, notably gastric bypass surgery for the massively obese helping develop a whole new specialty, called bariatric surgery (see The Skinny on Obesity 2008, this issue). They have also become common practice in Obstetrics and Gynecology, and with the prostate in males. Orthopedic surgery did not stay behind and arthroscopic surgery has now replaced open joint procedures in many cases.

These interventions have made life easier for thousands of patients causing much less post-operative pain since the incisions are much smaller. Also, the chance of infection and blood loss are minimal. The risks, however, are not negligible. These procedures can induce coagulation disorders and significant breathing problems to some high risk patients too. The penetration of the scopes into the abdominal cavity can result in trocar injuries or burns. Some people believe that this minimally invasive techniques may help health contain costs by shortening hospital stay; however, this technology is also very expensive. The final word on this is still undetermined.

In short, the history of surgery through the years has been exhilarating and fascinating. We have glimpses of technological advances in the future, such as Radiosurgery and Telerobotic surgery, these are still at the research level and it is highly premature to discuss them within the scope of this article.

I hope you enjoyed this synopsis and will find a short glossary on page 7 useful.





| | |
|--------------------------------------|--------------------------------------|
| abdominal cavity | cavidad abdominal |
| arthroscopy | artroscopía |
| acupuncture | acupuntura |
| auscultation | auscultación |
| blood vessels | vasos sanguíneos |
| breath sounds | sonidos / ruidos respiratorios |
| bronchi | bronquios |
| burns | quemaduras |
| childbirth | parto |
| cholecystectomy | colecistectomía |
| coagulation disorders | trastornos de la coagulación |
| duodenum | duodeno |
| endoscopy | endoscopía |
| fluid resuscitation | resucitación con sueros intravenosos |
| fractures | fracturas |
| heart murmurs | soplos cardíacos |
| gallbladder | vesícula biliar |
| laparoscopy | laparoscopía |
| minimally invasive surgery | cirugía mínimamente invasiva |
| seizure | convulsión |
| scurvy | escorbuto |
| stethoscope | estetoscopio |
| stomach ulcers | úlceras del estómago |
| skull surgery | cirugía de cráneo |
| secretions | secreciones |
| peritoneal cavity | cavidad peritoneal |
| prognosis | pronóstico |
| thyroid | glándula tiroides |
| traumatic injuries | lesiones traumáticas |
| trocar | trócar |
| urinary bladder | vejiga urinaria |

by James McAninch, MD

Chickens, Cytokines and Concern

*The 1918 Flu, today's Bird Flu,
and why we should be worried*

Medical/biological science translators may be asked to translate articles related to Avian Influenza (Bird Flu). Some of the articles are dense and contain confusing discussions of interleukins, interferon and tumor necrosis factor as well as complex genetics. The articles nonetheless demonstrate that a broad range of cellular messengers called cytokines play a vital role in the body's defense mechanisms against viral and bacterial infections.

Yet these same protein messengers, the cytokines, may have been responsible for the deadly clinical developments in an influenza pandemic that caused the deaths of as many as 50 million people in 1918.

Bold investigators rather recently exhumed an Inuit Eskimo who had died 90 years ago from the "Spanish Flu" as the 1918 pandemic was called. Her body had been buried in the arctic permafrost, leaving lung tissue and the actual viral RNA amazingly well preserved. Virologists had long been puzzled by the unusual pattern of deaths observed in the 1918 flu victims. The mortality was higher in young, healthy individuals than in the frail and elderly. The Spanish Flu virus of 90 years ago had undoubtedly started as a bird flu, jumping to pigs and then to humans. However, unlike the current H5N1 avian virus of today, it was readily transmitted from human to human. A genetically reproduced 1918 Spanish Flu virus was found to cause a massive buildup of fluid in the lungs of experimental monkeys, just as was the case with the human disease in 1918, essentially drowning the victim. Further investigation has suggested that this often fatal fluid buildup was most likely caused by the same messenger agents, or cytokines, that are vital to inducing the immune response to infections. The term "cytokine storm" has been applied to this

phenomenon. Young, healthy people with vigorous immune systems were the most susceptible to this disastrous activation of multiple cytokines normally involved in the inflammatory reaction to infection. Many died within a few days of the onset of symptoms.

Although a number of deaths (mostly in Asia) have occurred in persons handling infected poultry, the H5N1 bird flu has so far not developed into a human to human epidemic, or worse, pandemic, although rare human to human transmission has been confirmed. Why worry? Virologists around the

world are indeed worried because small mutations in the genetic material of today's H5N1 could lead to an encore of 1918, with rapid human to human transmission and high mortality.

Vaccination programs are being developed, but it is questionable whether the vaccines could adequately address the problem of a new, mutated virus. A small mutation in the viral genetic material, for example, could result in greater ability of the

virus to attach to human lung tissue. The virus might first jump from birds to pig populations as did the 1918 Spanish Flu virus. In a scenario just like that of 90 years ago, the virus would cause dysfunction of the immune system ("cytokine storm"). Thus, young, healthy people would be the population most at risk of fatal consequences.

Finally, translators may become involved in translating vital scientific information related to avian influenza which may come from Asia, continental Europe, or South America. For this reason, a glossary of terminology which is likely to be used in literature that discusses cytokines, virology and epidemiology, is provided below. Spanish and German definitions are provided for some of the terms.



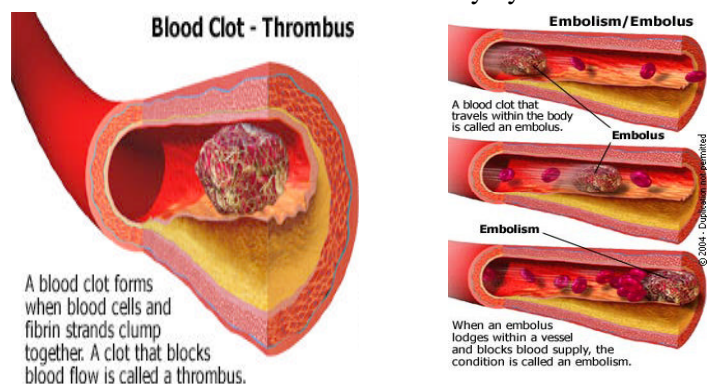
| TERM | GERMAN | SPANISH | ROLE | COMMENT |
|--|--|--|--|--|
| Cytokine | Zytokin (Cytokin) | Citoquina or citokina | General term includes a number of immune and inflammatory roles. Acts as a cellular messenger. | When the term was first introduced, many cytokines had not been discovered. The term is now a bit too general. |
| Cytokine storm | Zytokin Sturm | tormenta de citoquinas | Metaphorical term for the disastrous overreaction of the immune system in certain types of influenza and other diseases. | |
| Interleukin (a cytokine) | Interleukin | Interleukina or interleucina | Multiple functions affecting the immune response and inflammatory response. | The interleukins are numbered (IL-2, IL-3 etc.) They are produced by a variety of cells. |
| Interferon (a cytokine) | Interferon | Interferón | Affect viral replication. Subclasses are IFN- α , IFN- β , IFN- γ . | Reproduced interferons are used clinically. An example: Chronic hepatitis |
| G-CSF (Granulocyte colony stimulating factor, also is a cytokine) | Granulozyten-Kolonie-stimulierender Faktor | FEC-G (also G-CSF), factor estimulante de colonias de granulocitos | Stimulate growth of colonies of white blood cells. (Granulocytes) | Reproduced form of this cytokine is used to raise white cell counts after chemotherapy. |
| GM-CSF (Granulocyte/macrophage stimulating factor, (also a cytokine) | Granulozyten-Makrophagen-Kolonie-stimulierender Faktor | FEC-GM (also GM-CSF), factor estimulante de colonias de macrófagos | Also stimulates growth of white blood cells including macrophages to fight infections. | Also reproduced for therapeutic use. |
| Avian influenza | Vogelgrippe | gripe aviar | | Also referred to as "bird flu." |
| Human to human transmission | Übertragung von Mensch zu Mensch | contagio interhumano | | |
| Pandemic | die Pandemie | pandemia | | Geographically widespread outbreak of an infectious disease |
| Glutamic acid replacement by lysine at one polymerase protein position | Glutamin-säure ersetzung durch Lysin an einer Stelle des Polymerase- proteins. | sustitución por lisina de ácido glutámico | | This mutation in the Avian Influenza virus found by British researchers is often referred to in literature. |
| Anti-viral medication: Tamiflu and Relanza | Antivirale Mittel: Tamiflu und Relanza | Medicación antiviral (or medicamentos antivirales) Tamiflu y Relanza | Drugs that inhibit influenza virus replication. | May not be effective to any extent in H5N1 avian influenza |
| Mutations in the avian influenza viruses | Mutationen bei den Vogelgrippe-Viren | Mutaciones en los virus de la gripe aviar | Genetic mutations involving substitutions of one amino acid for another in the polymerase proteins of the viruses | Such mutations can present potential new dangers such as making human to human transmission easier. |
| WHO (World Health Organization) | Weltgesundheits-organisation | OMS (Organización Mundial de la Salud) | | |

Words about words and related words

provider - When the concept of managed care started as a major force in the delivery of health care services in the US, some 30 or so years ago, a provider usually referred to a **physician** or a **hospital**. The latter render services to the members of a health plan, managed care company or insurance carrier who, then, pays the physician and hospital for the services rendered. As time has passed other professional healthcare personnel, besides physicians and hospitals, have become capable of rendering services and billing the health plans or managed care companies directly. These latter mentioned professionals are often also called providers.

For an excellent glossary of terms used in managed care see: http://www.pohly.com/terms_p.html

clot - thrombus - embolus -- Under normal circumstances blood flows freely in a liquid state within the arteries and veins of our circulatory system. There are



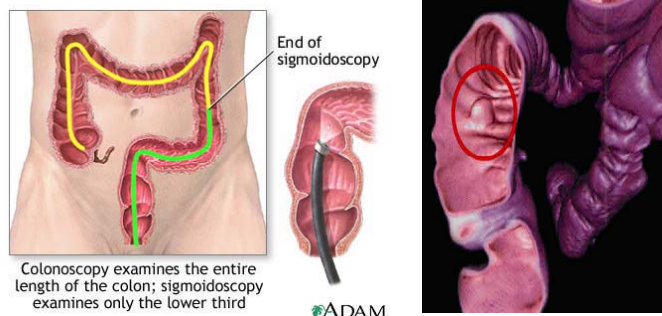
mechanisms in place that prevent it from clotting. A **clot** results when the formed elements of blood (see *Caduceus*, Summer 07) come together changing the liquid state to a solid state. This process - called **coagulation** - is necessary to prevent undue bleeding when an injury occurs. Circulating platelets come together and form a plug, which is followed by the formation of a mesh of fibrin that keeps the clot together. After healing occurs the clot is dissolved (lysed) and reabsorbed by the body. A clot that blocks blood flow is called a **thrombus**. A clot or a thrombus that slips away into the circulation is called an **embolus** - the process of clot release and final lodging in a site further downstream or upstream is called **embolization**.

non-physician providers - also known as **physician extenders** refers only to **physician assistants** and **nurse practitioners**. These two types of non-physician providers

complete a 2-year training curriculum, after a baccalaureate degree, that grants them a Masters degree in Medical Sciences. Upon completion of their training, they are licensed by the State and obtain malpractice insurance to work under the supervision of a licensed physician. Non-MD physician extenders have been very well received by the public. Certain medical specialties are currently going further by offering training from the start, in specialty fields of medicine. For example, anesthesiologists and now radiologists are preparing specialty assistants in their respective fields.

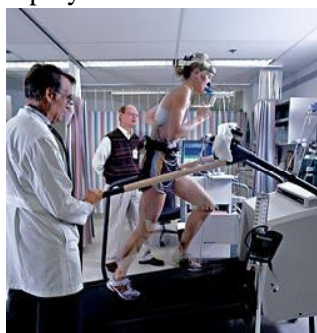
natural or organic - What is a **natural** food product? is a question with increasingly confusing answers. The FDA has no formal definition of natural. The USDA (United States Department of Agriculture) defines natural as having no artificial flavors, colors, ingredients or chemical preservatives – and the products are minimally processed. At the basic level, it refers to a product found in nature and free of additives added at some point in the production process or preparation to market. Natural meat, for example, should come from animals whose diet was natural and free of drugs and chemicals, others add a natural environment, not confined quarters. Advocacy groups regularly find objections to the natural foods sold to the public. **Organic** is a different story. Organic foods are legally regulated, certified and produced according to certain standards - grown without the use of conventional pesticides, artificial fertilizers, human waste or sewage sludge and processed without ionizing radiation or food additives. They are legally regulated in the US, the European Union, Japan and many other countries. Ref (various sources)

colonoscopy vs colonography - COLONOSCOPY is the now routine endoscopic visualization of the colon. Previously only 25 cm from the anus could be examined with a sigmoid, a sigmoidoscopy. Now a flexible fiberoptic instrument, a colonoscope, is inserted via the rectum and, under visual guidance, progressively moved further in until the entire colon is examined. Should an



abnormality be found it may be biopsied or entirely removed, as in the case of a polyp. **COLONOGRAPHY** is the visualization of the colon by means of computerized tomography technology. The colon is slightly inflated with air and with the appropriate machinery over the patient the physician can visualize it and select a particular cross section to create an image. <http://www.wisegeek.com/what-is-a-colonography.htm>

health vs fitness - health is a medical term strictly defined as the absence of disease, physical or mental. This health vs disease paradigm is experienced in everyday living. The question: Are you healthy? - as would appear in an employment form or similar questionnaire, or even in



O2 Uptake Test in Progress

normal conversation, is precisely understood to mean: Are you free of disease? On the other hand, physical fitness is simply a person's ability to use oxygen. An unfit person who gasps and puffs during mild exertion does so because he/she is unable to use oxygen.

The body needs it, it is available but because of poor intake, absorption, transportation or usage, the oxygen is puffed right back out. The opposite is the case with a fit person who seems to exercise vigorously with little effort and recovers quickly. Fitness is measurable - while exercising

vigorously the use of oxygen delivered through a mouthpiece is measured. The test is called an Oxygen Uptake Test or VO2 max.

What's a "drink"? - it is a matter of record that 1-2 'drinks' of alcohol a day can have a salutary effect. The incidence of heart attacks in totally abstemious populations is higher than in controlled social drinkers. So, it comes down to: What is the definition of a drink?



U.S. physicians consider one drink as equal to:

- 0.5 U.S. fluid ounces of alcohol
- In metric equivalents: 15 cc = (cubic centimeters)
- In U.S. fluid units - *the bartender's guide* - one "drink" corresponds to:



- Y about 5 ounces (a wineglass) of wine. Or,
- Y 1.5 ounces (= a shot) of whiskey or any hard liquor (80% proof = 40% alcohol)
- Y one 12 oz beer, at 4% alcohol

What is alcohol 'proof'? - a measure of how much ethanol (ethyl alcohol) is present in an alcoholic beverage. It is numerically approximately twice the alcohol content *i.e.*, 100% proof contains 50% alcohol. Rum is usually 86% proof.

WHAT'S A TEETOTALER?

A teetotaler is one who totally abstains from alcohol, an abstemious person.

What about the origin of this word? As far back as 1800 "tee-totally" was an emphatic form of "totally", a lexical phenomenon where the initial letter of a word is repeated for emphasis. The first application of teetotal to drinking was in a speech by Richard Turner, a member of the British Temperance Society, in which he urged everyone emphatically to abstain tee-totally from all forms of alcohol.

Ref: The Mail Archive:
www.mail-archive.com

HOW DOES A "BREATHALYZER" WORK?

The alcohol a person drinks shows up in the breath. It is first absorbed from the GI tract "as is", taken into the bloodstream and then into the lungs where it moves, across lung tissue membranes, specifically the air sacs or alveoli.



The alcohol concentration of alveolar air is directly related to the alcohol concentration in blood. As the alcohol in the alveolar air spaces is exhaled, it can be detected by the breath alcohol-testing device.

However, there is still much debate among the legal and scientific communities about the variables involved that can cause confusion. Citizens should be aware of the prevailing laws in a particular state.

"Breathalyzer" is an actual brand name by a specific manufacturer; however, it has become a genericized trademark for all such instruments.

Emerging terms and acronyms:**by Elena Sgarbossa, M.D.***T-rays, EAR, generation Rx, and maternal profiling*

Medical translators, writers and editors are now likely to come across the terms *T-rays*, *EAR*, *generation Rx*, and *maternal profiling*. What do they mean?

T-RAYS is short for terahertz rays, a type of radiation that in the electromagnetic spectrum encompasses the frequency range from 0.1 to 10 terahertz, i.e., between microwaves and infrared frequencies. *T-rays* oscillate at a trillion cycles per second (“tera-” refers to a factor of 10 to the power of 12, or one trillion). Terahertz radiation had remained unexplored until recently because it is difficult to generate. Advances in laser technology have led to the devising of convenient terahertz imagers, some of which have been tested in security applications such as the detection of chemical and biological agents.

Diagnostic applications are also under development. *T-rays* penetrate just a few millimeters below the skin and thus can image areas of the body that are difficult to scan with other methods such as X-rays. Contrary to x-rays, *T-rays* are non-ionizing. They do not damage tissues nor are harmful to health. Terahertz imaging is currently under advanced evaluation for the detection of skin and breast cancers.

[http://www.sciencedaily.com/
releases/2007/08/070807135649.htm](http://www.sciencedaily.com/releases/2007/08/070807135649.htm)
<http://www.worldwidewords.org/turnsofphrase/tp-tra1.htm>

EAR stands for Early Acute Rejection, Endovascular Aneurysm Repair, and several other medical terms. It also means Electronically Activated Recorder. The *EAR* is a small device that can “hear”—i.e., become periodically activated in the presence of ambient sound, and digitally record it. The *EAR* is useful for behavioral research; it can be worn on a person’s

belt or a purse and sample snippets of conversations without relying on self-reports. Data has been collected, for example, on conversations of men vs women. Their analysis allowed Matthias Mehl, an assistant professor of psychology at the UA, and other researchers (the team of *EAR* developers) to challenge the findings published in a book that “a woman uses about 20,000 words a day, while a man uses only about 7,000.” For months, the investigators logged the daily conversations of undergraduate students who wore the device. On average, women spoke 16,215 words daily and men spoke 15,669 words. The difference—the authors point out in their article “Are Women Really More Talkative Than Men?”—is not statistically significant, and is much smaller than the differences between the most and the least talkative persons within the same gender. The least talkative male spoke just a little more than 500 words a day, while one of the most talkative men in the study used 47,000 words.

[http://www.sciencedaily.com/
releases/2007/07/070705152953.htm](http://www.sciencedaily.com/releases/2007/07/070705152953.htm)
dingo.sbs.arizona.edu/~mehl/EAR.htm

GENERATION RX seems to have two usages. In one, *generation Rx* (published as part of a book title) refers broadly to people of all ages in America who take prescription drugs to treat conditions previously not treated with medicines or not treated at all.

The most widespread usage of *generation Rx*, however, refers to young people—specifically children and teenagers—who take or abuse medicines that are either over-the-counter (OTC) or prescribed (Rx) to them or to someone in their household. A study conducted a few years ago by the Partnership for a Drug-Free America showed that one in five teenagers had tried prescription painkillers—and nine percent had

tried cough syrup— to get high. The teens had access to the drugs in their homes, often in their parents' medicine cabinets. Most teenagers interviewed said that experimenting with legal drugs was much safer than using illegal drugs such as cocaine or ecstasy.

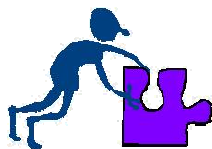
http://www.thevillagenews.com/story.php?story_id=27733
http://pediatrics.about.com/cs/mentalhealth/a/generation_rx.htm

MATERNAL PROFILING does not refer to patient profiling (i.e. to the array of demographic, medical and social indices that can be targeted to

improve a mother's health or her children's, born or unborn). It refers to employment discrimination against a woman who has, or will have, children. A Cornell University study found that among women with the same resumes and job experience, mothers were offered \$11,000 less in starting pay than non-mothers.

The term *maternal profiling* was popularized by MomsRising, an advocacy group promoting the rights of mothers in the workplace. The term was included in the New York Time's list of newly coined buzzwords for 2007.

<http://www.post-gazette.com/pg/06260/721997-109.stm>
<http://www.momsrising.org/node/710>

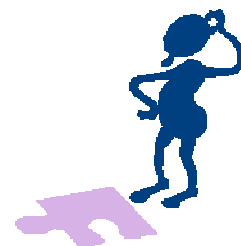


MATCH



1. cirrhosis
2. diabetes
3. hypertension
4. shoulder problems
5. gluten-sensitivity
6. Galen
7. regional enteritis
8. Parkinson's disease
9. coronary heart disease
10. obesity
11. Bilroth and Halsted
12. Medicare
13. physician extenders
14. Hippocrates
15. ulcerative colitis

- a. sugar
- b. salt
- c. wheat
- d. alcohol
- e. cholesterol
- f. bariatric surgery
- g. PAs and NPs
- h. pioneers in American surgery
- i. bloody diarrhea
- j. movement problems
- k. overhead sports
- l. citizens over 65 yrs
- m. Father of Medicine
- n. Roman physician
- o. Crohn's disease



Answers on page 24

by Rafael A. Rivera, M.D.

PART I

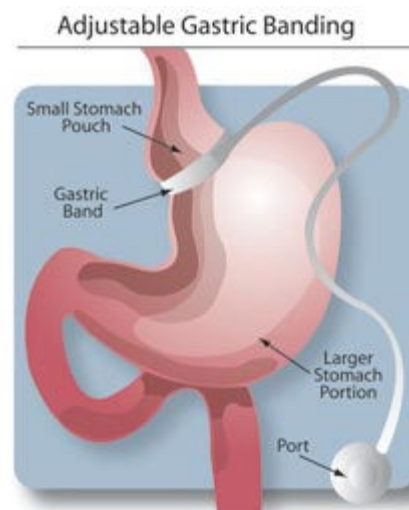
Facts:

- ✓ Obesity is defined as excess weight.
- ✓ Excess weight is in the form of excess fat.
- ✓ Excess fat accumulates primarily under the abdominal wall, also in hips and glutei.
- ✓ Excess body fat leads to diabetes and all the major complications attributed to diabetes *i.e.*, hypertension, heart disease, stroke - the leading causes of death in the US. This combination of factors has been called 'the perfect (medical) storm'.
- ✓ Also, obesity leads to certain cancers (colon, rectum, prostate), orthopedic problems, fatty liver, GERD, gout, gallstones, sleep apnea, reproductive problems, osteoarthritis.
- ✓ The mechanism by which excess fat interferes with insulin regulation or action is not entirely known. It seems that before insulin can do its job of removing sugar from the blood stream and putting it into cells, it must first attach to special 'hooks' known as insulin receptors on the surface of cells. Fat stored in cells internalizes these receptors so insulin loses its attachment and is unable to carry out its function. This area is presently receiving a lot of serious attention.
- ✓ Conventional diet and exercise is an approach that is followed by very few. The latest approach is surgery for obesity; so far, this has produced much better results.

The incidence of obesity among adults and children has more than doubled in the last two decades. Approximately 30 percent of adults and 25 percent of children are considered obese, as defined by federal standards. Besides the aesthetic concerns, childhood obesity is recognized as a major factor, not only in health, but in future social problem. Adults who were

obese as children are less likely to marry or obtain a higher education.

It is also recognized that dietary recommendations have very little effect. The epidemic of obesity and obesity-induced diabetes is such that dramatic measures such as surgery for obesity, known as



bariatric surgery, is now on the increase for both adults and children. "It's the best therapy for diabetes that we have today, and it's very low risk." (1)(2)(3). The study was a 2 - year comparison

"Lap-B Surgery System"

is the brand name of the adjustable band shown on the illustration. It's a silicone belt that goes around the upper part of your stomach creating a newly formed pouch that serves as your "resized stomach". The band is secured in place with sutures. The access port is placed underneath the skin in the upper part of your abdomen. Injecting saline into the port inflates the band, which further restricts food intake or, conversely, fluid can be removed to loosen the grip. Initially only a liquid diet is tolerated along with medication, supplemental vitamins, etc. The band is adjusted in the doctor's office.

between randomly assigned obese diabetic patients to either gastric banding (see illustration) or conventional diabetic therapy. The results were clear and striking. After 2 years, complete remission of the diabetes was obtained in 73% of the gastric banding patients vs only 13% of those treated with conventional (diet) therapy. Of course, as always in

Medicine, there is the need for duplication of results by other independent groups and further studies.

The National Institutes of Health (NIH) requirements for Lap-Band surgery or any other more invasive weight loss surgery, like gastric bypass, have not changed since the 1990s: a body mass index (BMI) of between 35 and 39 with associated co-morbid conditions such as diabetes, hypertension, high cholesterol. If the BMI is greater than 40 no associated medical problems are necessary. It is common to have a support groups of patients who have had this type of surgery and those who are considering it to be as fully informed as is necessary <http://www.yourplasticsurgeryguide.com/bariatric/lap-banding.htm>

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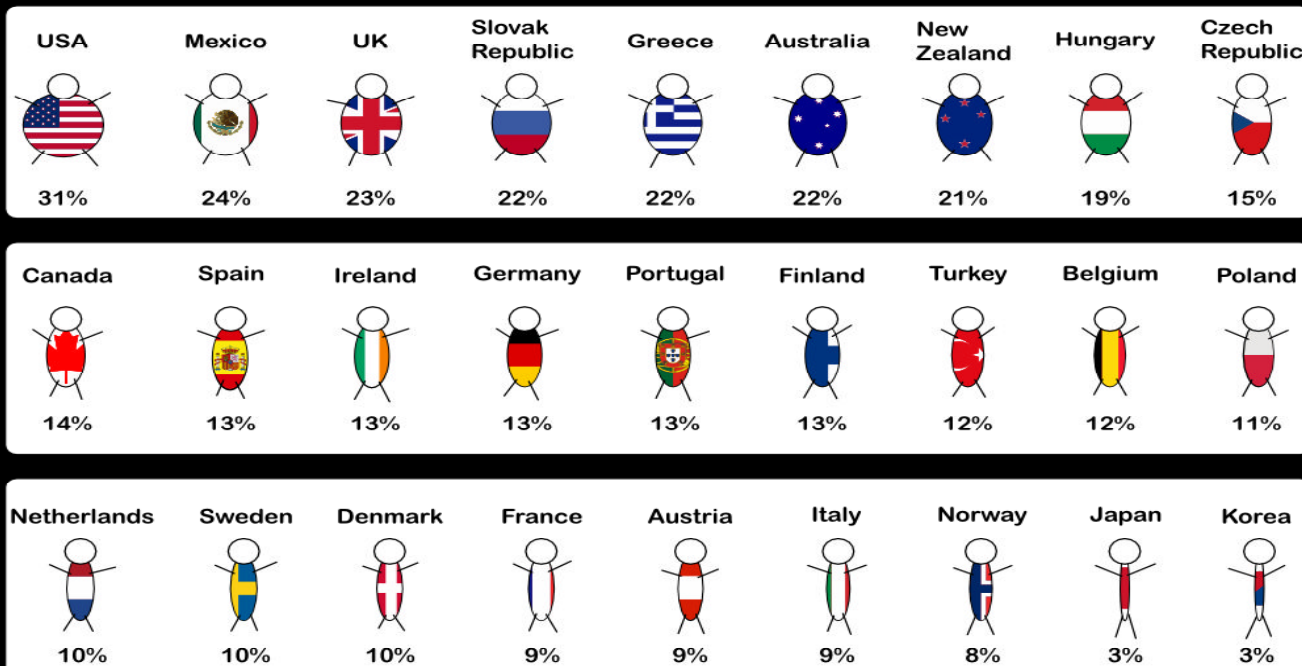
belly fat = love handles = beer gut potbelly

What is BMI? Body Mass Index, also known as the Quetelet Index is a statistical measure of the weight of a person according to height. Specifically, it is defined as the person's body weight divided by the square of their height. (http://en.wikipedia.org/wiki/Body_mass_index). Also visit <http://www.nhlbisupport.com/bmi/> to get your personal BMI. In general the BMI categories are:

Underweight = <18.5. Normal weight = 18.5 - 24.9 Overweight = 25 - 29.9 Obese = 30 or greater

Obesity is a world-wide problem with the USA leading the way

OBESITY: The percentage of the population older than 15 with a body-mass index greater than 30.

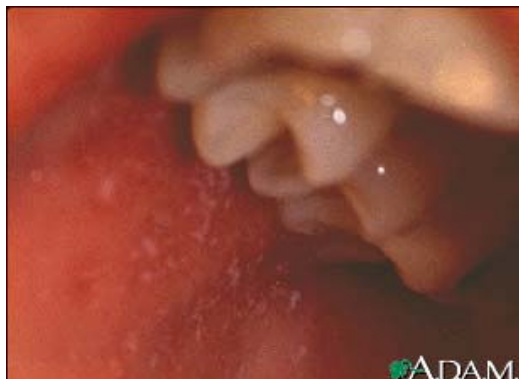


Data taken from:
<http://en.wikipedia.org/w/index.php?title=Image:Bmi30chart.png&oldid=107854217>

Drawing by:
<http://www.WellingtonGrey.net>

A little bit of everything

Who's Aunt Minnie? - Aunt Minnie is a colloquial term used in medicine, particularly



KOPLIK SPOTS (Illustration above)

Small, irregular, red spots seen on the buccal mucosa of the inside cheek, considered put something here pathognomonic of measles, seen a few days before the rash appears

Radiology, to refer to radiographic appearances that are so characteristic of a particular condition that they are considered unmistakably representative of that particular diagnosis. As soon as you see it, you know what the diagnosis is! Like seeing Aunt Minnie walking down the street, you'll recognize her anywhere. There is another more serious medical word: **pathognomonic** - with the same meaning, a particular sign that when present, in effect, makes a diagnosis.

<http://en.wikipedia.org/wiki/Pathognomonic>

fellow, again - for a comprehensive review of the uses of the word **fellow** in American medicine see *Caduceus*, Summer 2003. In the meantime: the most common use of the word **fellow** in medicine is as short for **fellow-in-training**, referring to a physician pursuing subspecialty training. There are at present over 30 **primary medical specialties**, in American medicine. These are such areas as internal medicine, surgery, anesthesiology, emergency medicine, radiology, etc. Most primary specialties have **subspecialty areas**; for example, the primary specialty of internal medicine has subspecialty areas such as: cardiology, gastroenterology, hematology,

etc. While a physician pursues training in a primary specialty he is referred to as a **resident**, going through **residency** in XXX. When a primary specialist decides to subspecialize, the subspecialty training is called a **fellowship** and the physician pursuing said training is a **fellow-in-training**, or simply a **fellow** in XXX subspecialty. The first postgraduate medical year of training, which used to be called **internship**, has been eliminated by the American Medical Association. Every training year following graduation is now simply stated as postgraduate year, PGY 1-2 -3... 9-10,12 Ref: <http://www.abms.org/>

incidental surgery - also called *secondary* or *concomitant* surgery, refers to the prophylactic removal of other organs besides the ones intended to be removed as the principal reason for the surgery. This occurs primarily during abdominal surgery with the two most common additional organs removed being the appendix and a stone-containing gallbladder. These organs are removed with the patient's consent for incidental surgery as well as the primary surgery. The appendix is removed because it does not have any known function other than becoming infected, which requires removal anyway (see below). Unless there are clear contraindications patients who have asymptomatic gallstones who have colorectal surgery should have a concomitant cholecystectomy. (Ref: Annals of Surgery 219(5), May 1994). In addition, there are incidental splenectomies - the removal of the spleen - which may occur either to facilitate needed surgical exposure during the course of surgery in the upper abdomen, or because of uncontrollable bleeding due to an accidental capsular tear of the spleen. (Ref: Annals of Surg 183(2), Feb 1976). Absence of the spleen, however, does carry certain medical risks.

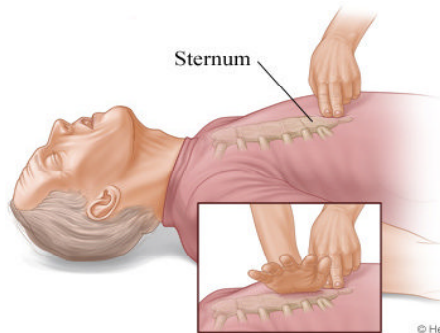
Is the human appendix good for anything?

- Recent research from Duke University suggests that the appendix may act as a reservoir for good bacteria that normally live in the intestinal tract. After a bout of severe infectious diarrhea or a course of antibiotics that clean up, so to speak, the bowel the appendix may be helpful in repopulating the intestinal tract. The current practice still is to remove

the appendix when it becomes infected, as in acute appendicitis, or remove it as an incidental procedure (see below) during the course of abdominal surgery for another reason.

anesthesia awareness - refers to the unusual experience some patients can have while under general anesthesia. Even though they are seemingly asleep and unconscious, they still report being able to hear the conversation of those around and experience pain or pressure. More to come on the Summer 08 issue of *Caduceus*.

CPR - push harder and faster. CPR is the well-established acronym for *cardio-pulmonary-resuscitation*. The *cardio* portion refers to chest compressions to maintain blood flow to the brain and vital organs. The *pulmonary* portion refers to the delivery of mouth to mouth breaths. The previous 2000 guidelines called for 15 chest compressions for every two rescue breaths, each breath lasting a second. This known ratio of compressions to breaths rose to 30 chest compressions for every two breaths. However, very little progress was recorded



in the CPR survival rate, according to the American Heart Association - even though 4 out of 5 heart attacks occur in the home and many are witnessed by family members. The current thinking emphasizes uninterrupted chest compressions with the slogan - "push hard, push fast", try to maintain a chest compression ratio of 100 per minute, allowing the chest to return to its normal position between compressions. When you compress the chest deep enough, you create a vacuum that pulls in air. Two observational, retrospective analysis of survival after cardiac arrest found that chest compression-only CPR (just CP) is just as affective as standard CPR. If there is an automatic external defibrillator (AED) at hand a single shock appears to be enough. Studies

have shown that cardiac arrests treated by volunteers trained in both CPR and the use of an AED have twice the chance of survival than those assigned to



C P R - a l o n e response units.

Proper place to place the heel of your hand for chest compression. Locate the tip of the sternum, as the

figure shows, then replace the fingers with the heel of the hand.

Circulation 2007 Dec 18;116:2900

Circulation 2007 Dec 18;116:2908

Universal Symbol for AED



When you see this symbol it means that an automated external defibrillator (AED) is available.

intervention - a word with many meanings - colloquially speaking it means to come between points of time or events, to interfere, to occur or lie between, to interpose. Medically, it is an abridged way of saying surgical intervention. In today's procedure oriented medical environment it may refer to a diagnostic test or maneuver, not necessarily performed by a surgeon. Non-surgically trained physicians perform diagnostic and therapeutic interventions that may be diagnostic or therapeutic or both. For example, cardiologists, place intravenous or intra-arterial catheters for diagnostic imaging of the coronary circulation, followed by placement of balloons for dilatation of narrowed arteries and subsequent placement of stents to maintain the newly established patency. These professionals are interventional cardiologists. Aside from medicine, a chronic alcoholic or drug user may experience yet another form of intervention, which means the coming together of family and friends as a group to confront him or her with the reality of addiction and the need for intensive medical intervention by addiction specialists.



by Suzanne Couture and
Rafael A. Rivera, M.D., FACP



HO
HAT
HEN
HERE

See CADUCEUS, Fall / Winter 2007



| ABBR | ENGLISH | ABREV | ESPAÑOL | REF |
|---------------------|--|--------|---|-----|
| | admission date | | fecha de ingreso/internación/hospitalización | |
| AM | <i>ante meridiem</i> | | por la mañana | 1 |
| AMA | against medical advice | | contra criterio medico | |
| ASAP | as soon as possible | | lo antes posible | |
| b.i.d. (bid or BID) | <i>bis in die</i> , twice a day | | dos veces al día | 2 |
| | before breakfast | a. De. | antes del desayuno | 1 |
| | before dinner | a. Ce. | antes de la cena | 1 |
| | before eating | a. Co. | antes de la comida | 1 |
| biw | twice a week | | dos veces a la semana | |
| BPM | beats per minute | | latidos por minuto | |
| | breastfeeding period | | período de lactancia | |
| | coagulation time or clotting time | | tiempo de coagulación | |
| D/C | discharge, discontinue | | dar de alta, discontinuar | |
| | delayed closure | | cierre tardío | |
| DOB | date of birth | | fecha de nacimiento | |
| EDD | estimated date of delivery | FPP | fecha propuesta de parto | |
| EDD/EDC | estimated date of delivery/ confinement | FEP | fecha estimada de parto | 3 |
| | elective (surgery) | | cirugía electiva (también se le llama cirugía opcional): una operación que el paciente elige tener, la cual no necesariamente es esencial para continuar su vida en óptimas condiciones | 4 |
| | emergency (surgery) | | cirugía de emergencia (también se le llama cirugía de urgencia): una operación que debe realizarse de inmediato como resultado de una condición médica urgente | 4 |

| ABBR | ENGLISH | ABREV | ESPAÑOL | REF |
|--------|--|--|---|-----|
| EOL | end of life (for devices) | EOL (remains in English) | batería agotada | |
| ETA | estimated time of arrival | | hora estimada de llegada | |
| | expiration date | | fecha de vencimiento o de caducidad | |
| | fasting | | en ayunas | |
| | gestational age: length of pregnancy after the first day of the last menstrual period (LMP), expressed in weeks and days | | edad gestacional | |
| T1/2 | half life (T1/2) of a drug: time required for the concentration or amount of drug in the body to be reduced by one half of its initial value. | T1/2 | vida media de una droga, vida media plasmática | |
| HS | <i>hora somni</i> , at bed time | | a la hora de dormir, al acostarse | |
| | incidental surgery: surgery that would not have been performed in the absence of the definitive procedure (ex: an exploratory laparotomy leads to a definitive surgical procedure through the same incision) | | cirugía incidental | 5 |
| | incubation time | | período de incubación | |
| LMP | [date of] last menstrual period | FUM | fecha de la última menstruación | |
| LOA | leave of absence | | permiso para ausentarse, licencia temporal | 6 |
| NOC | <i>nox</i> , night | | noche | |
| P(ROM) | (premature) rupture of membranes | | rotura/ruptura (prematura) de membranas | |
| PCA | patient-controlled analgesia | | analgesia controlada por el paciente | |
| PM | <i>post meridiem</i> | | por la tarde | 1 |
| PM | <i>post mortem</i> | | después de muerto | 1 |
| | prematurity | | nacido ante el termino normal de la gestación; precocidad | 7 |
| PRN | <i>pro re nata</i> , as needed | | según sea necesario | 8 |
| PT | prothrombin time | TP | tiempo de protrombina | |
| PTT | partial thromboplastin | TTP o PTT (remains in English) | tiempo de tromboplastina parcial | |

| ABBR | ENGLISH | ABREV | ESPAÑOL | REF |
|---------------------|---|-------|--|-----|
| q.d. (qd or QID) | <i>quaque die</i> , once a day | | una vez al día | 2 |
| q.i.d. (qid or QID) | <i>quarter in die</i> , four times a day | | cuatro veces al día | 2 |
| q_h | If a medicine is to be taken every so-many hours, it is written "q_h"; the "q" standing for "quaque" and the "h" indicating the number of hours. So, for example, "2 caps q4h" means "Take 2 capsules every 4 hours." | | cada X horas (ej., q2h = cada 2 horas) | 2 |
| qh | every hour | | cada hora | |
| qtd | every third day | | cada tercer día | |
| qwk | once a week | | una vez a la semana | |
| SDS | same day surgery (outpatient procedure) | | cirugía diurna, cirugía ambulatoria, procedimiento ambulatorio | |
| t.i.d. (tid or TID) | <i>ter in die</i> , three times a day | | tres veces al día | 2 |
| TBA | to be announced | | estar por anunciarse | |
| tiw | three times a week | | tres veces a la semana | |
| TOD | time of death | | hora de la muerte | |
| | transit time | | tiempo de tránsito | 9 |
| VBAC | vaginal birth after cesarean | | parto vaginal después de cesárea | |
| YTD | year-to-date | | año a la fecha/hasta la fecha | |

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| http://www.elpartoesnuestro.es | 3 |
| http://www.uchospitals.edu/online-library/content=S04496#C | 4 |
| http://www.health.gov.bc.ca/msp/msptutor/multiple_surgery.html | 5 |
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Caduceus

A PUBLICATION OF THE MEDICAL DIVISION OF THE AMERICAN TRANSLATORS ASSOCIATION

SPRING 2008

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A NEW REGULAR FEATURE

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Earlier Times



by Cynthia E. Roat, MPH

AN EMERGING DISCIPLINE

Original article printed in the January 2000 ATA Chronicle; updated February 2008 at the request of the Medical Division of ATA

Communication is the very heart of health care. A patient describes her symptoms, a doctor asks careful questions, a diagnosis is suggested, a treatment plan negotiated. Listening and understanding what was said is the basis of the whole process. But what happens when provider and patient come from different cultures, speak different languages and cannot understand each other at all?

This is the scenario encountered by thousands of people each year in hospitals and clinics across the United States. For the 21 million immigrants, refugees, and Native Americans, who told the 2000 US Census that they speak English “less than very well,” language and cultural differences become a terrible barrier to accessing quality health care from mainstream medical providers. Providers, on their side, are finding their practices becoming more multilingual and multicultural every year. The traditional use of family and friends to interpret is being discredited, as disasters of miscommunication are being translated into liability suits and complaints to the Office for Civil Rights (see inset). Separated by a language and cultural gap that makes healing very difficult, both patients and providers are turning to a new professional who holds the keys to communication: the health care interpreter.

What is a health care interpreter?

Health care interpreters are bilingual individuals, trained in interpretation skills and medical terminology, who facilitate understanding in communication between people speaking different languages in health care settings. You’ll find them in

hospitals and clinics, at emergency rooms and diagnostic imaging services, in workman’s compensations exams, blood banks, dialysis centers, and a variety of mental health venues. They interpret for everything from clinic registration to psychiatric evaluations, from routine annual exams to bone marrow transplants, from chest X-rays to angioplasty. Theirs is the voice of the patient describing symptoms or asking anxiously for the results of the lab tests; theirs is the voice of the doctor explaining how to take the medication or sharing the news that there is no hope for a sick child.



Health care interpreters provide services through multiple arrangements. A small percentage are full-time staff members, with a 40-hour workweek and benefits, while many more are independent contractors with hospitals or interpreter agencies and are paid only for the time they interpret. Some are scheduled for appointments days or weeks ahead, while others are on-call or respond to pages. They provide services face to face, over the telephone, by videoconference or in some combination of all these.

This is, however, an emerging discipline. Most interpretation in health care settings is still provided, unfortunately by a variety of other people who have been neither screened nor trained, and who do not self-identify as being interpreters. In many places around the country, patients are still being expected to bring a family member or a friend to interpret, although this practice is not in compliance with the 1964 Civil Rights Act. Even more common is the use of unscreened, untrained bilingual clinic staff to interpret, commonly Medical Assistants, medical technicians, receptionists, or even janitorial or food services staff. They interpret, often at a high personal cost, out of a desire to be of service. The lack of screening and training, however, translates

into inaccurate interpreting and misunderstandings -- sometimes with serious consequences.

Slowly, health care institutions are becoming more aware of the difficulty of interpreting and the problems attending poor quality interpretation. An increasing number of institutions are seeking to professionalize their language services, first by recognizing interpretation as a specialized skill and role, and then by beginning to screen and train their interpreters. What does that process look like?

Screening, Training and Certification

Screening of a potential interpreter's language skills varies in formality and rigor. On one end of the spectrum, some institutions simply accept at face value a person's claim that (s)he speaks a certain language. Some institutions have written screening tests, usually focusing on knowledge of medical vocabulary and basic medical concepts. Some parts of the test may be bilingual. Other institutions may combine this with a short informal oral interview, conducted by a speaker of the candidate's language pair, to give a general assessment of the candidate's fluency. More formal (and more expensive) is a structured oral screening test, using a scale developed by the American Council of Teachers of Foreign Languages (ACTFL). There are several companies in the US that will apply such a structured oral screening over the telephone and provide a written assessment of the candidate's level of language skill. Finally, some programs screen by requiring some level of formal education in the non-English language combined with TOEFL (Test of English as a Foreign Language) scores.

Training is equally as varied. As mentioned earlier, most interpretation in the health care field is still

being done by people with no training. Where training is available, it varies from a short "orientation," in which the interpreter role and ethics are introduced and superficially discussed, to full year certificate programs based at a college or university, which may total over 300 hours of instruction and practicum time.

In a survey of 23 medical interpreter training programs done in 1997, the most common length of training was around 40 hours. The National Council on Interpreting in Health Care is currently working on National Standards for Health Care Interpreter Training Programs that should be released in early 2009.

Formal certification is relatively rare. At the time of this writing, only the Department of Social and Health Services of the State of Washington has a validated process in place to certify medical interpreters, which is done in seven languages. Language Line Services also certifies health care interpreters in an over-the-phone test developed for telephonic interpreters. California has a "medical interpreter" certification related to its court interpreter certification program, but it is not focused on clinical interpreting per se. For more information on health care



interpreter certification, see *Certification of Health Care Interpreters in the United States: A Primer, a Status Report, and Considerations for National Certification*, available for free download from The California Endowment at www.calendow.org.

How an interpreter is screened, trained and certified, then, depends largely on where s/he lives, the specific organization s/he works for, and the language pair s/he interprets.

Just another venue?

Is the health care field simply one more venue in which professional interpreters may work, or is there something fundamentally different about medicine that requires special skills and approaches to interpreting?

Certainly, interpreting in any field involves listening and understanding meaning in one language and an attempt to reproduce the most equivalent meaning possible in another language. All interpreters must be committed to accuracy and have flexibility and stamina. Like other venues, health care has its own specialized vocabulary that must be learned to be able to understand and reproduce meaning.

However, medical settings create some interesting dynamics that require special skills of a health care interpreter. For example, most health care interpreting is done in a triadic setting, with the patient, the provider and the interpreter in close proximity. The process is collaborative, not adversarial, and the level of trust present among all the players will have a major impact on the outcome for the patient. Patients often identify with the interpreter and expect him or her to “take care of things.” The topics being discussed are often highly personal, sometimes acutely painful. Other situations can be emergent, with blood everywhere and time of the essence. Interpreters can be exposed to physical and emotional trauma, and to difficult ethical issues; sometimes the interpreter’s own health can be compromised.

These situations require successful health care interpreters to have a curious ability to be both warm and caring and, to a certain extent, detached. They must inspire a patient’s trust, and then allow that trust to shift to the provider. They must be able to guide the flow of an interpreted session while staying in the background, helping patients and providers to focus on each other even when they seem more comfortable talking to the interpreter instead. They must be committed to supporting the patient-provider relationship while still being willing to intervene if they believe that a misunderstanding is taking place. They must stay calm under pressure, focused in the face of tragedy, unfazed by the often unusual things they hear or see. They must have exceptional people skills and good personal boundaries. And they must do all of this in an environment where people are sick and in a hurry and often have no idea what the interpreter’s job is. Health care interpreters have neither the anonymity

of the booth nor the formality of the courtroom to shield them. They are daily on the front lines of the human experience, knowing that an error on their part could potentially have a profound impact on a patient’s life.

Why would anyone want to do this work?

When asked this question, healthcare interpreters seem to have no problem answering. The opportunity to help people on a daily basis access something as important as health care is a major motivator for these interpreters. Patients are often effusive in their gratitude, and providers as well are coming to appreciate the importance of a clear and accurate interpretation. The work is never boring, always varied, always challenging. Healthcare interpreters get to see areas of healthcare practice that very few non-clinical staff every witness. For those with a love of language and medicine, this is the perfect job.



Future of the field

Comparing the demands made of a health care interpreter and the state of interpreter screening and training today, it is clear that the field has a long way to go. However, there are reasons to be hopeful that health care interpreting will continue to grow as a more professional discipline. The first of them is simply demographics.

Consider these statistics from the US government: as of 1996, 900,000 legal immigrants were being admitted to the US every year, and in 1997, one out of every ten US residents was foreign born. Fourteen percent of US residents speak a language other than English at home. And the limited English proficient population of the U.S. grew from 6.1% to 8.1% between 1990 and 2000. We are an exceedingly diverse population here in the US, and a multiplicity

of languages is both one of our great strengths and great challenges. Even though immigrants and refugees are learning English at an unprecedented rate, continued immigration and high rates of relocation within the US mean that almost all health care facilities in the country are reporting an increase in the number of limited English speakers whom they serve.

There are also legal pressures on health care institutions that are boosting the demand for qualified health care interpreters. In addition to the civil rights issues discussed earlier, medical centers are feeling some pressure from powerful institutions such as The Joint Commission and the National Council for Quality Assurance (NCQA). Both institutions have included standards for culturally and linguistically competent care as part of their accreditation process.

Finally, there is growing evidence to suggest that paying for an interpreter up front may actually be cheaper in the long run for the health care system than paying for the potential outcomes of miscommunication, such as increased number of visits, inaccurate diagnosis, inappropriate procedures, ER visits and hospitalization. Our health care system is increasingly a managed care system, in which a service provider receives a set payment for each patient whose care he manages. Under this kind of a system, hospitals and clinics become concerned about the overall cost of caring for a patient over time, since they only receive a certain set fee per patient.

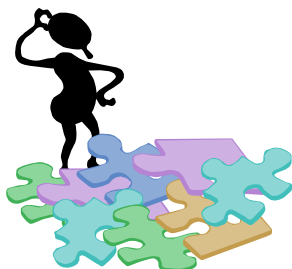
Because of these forces, a curious shift started in the early years of this decade. From asking "Why do we need interpreters?" health care administrators started asking, "How can we provide language access in the most effective, efficient way?" Clearly we are still a

long way from providing an interpreter for every patient who needs one, but this change is a significant advance signaling that major improvements will not be passing.

The final ray of hope comes from the many efforts being made on many levels to raise awareness and skill in interpreting. The National Council on Interpretation in Health Care (NCIHC) has completed a national consensus-building process resulting in a single National Code of Ethics and National Standards of Practice for Interpreters in Health Care. Work has started on National Standards for Training Programs. A National Coalition has formed to begin work on a National Certification process. The number of state-based interpreter associations focused on health care interpreting has increased to 30. Listservs, websites, and local, regional and national conferences connect people who are working on health care interpreting all over the country and help to disseminate new ideas and materials and stimulate discussion of key issues. A growing number of medical schools such as that of the University of Washington include classroom instruction on how to communicate through an interpreter. In meeting rooms and boardrooms and examination rooms, many small steps are being taken to move health care interpreting from the realm of an ad-hoc, chance process to a discipline of skill and art. The end result will be a new specialty in the old profession of interpreting and, more importantly, improved health care for the many patients whose very lives may depend on the quality of the communication facilitated by the health care interpreter.

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Answers to Match

1 - d

2 - a

3 - b

4 - k

5 - c

6 - n

7 - o

8 - j

9 - e

10 - f

11 - h

12 - l

13 - g

14 - m

15 - i

by Zarita Araujo - Lane LICSW
and Vonessa Phillips Costa

Over the past few months, in various trainings and from the feedback of active interpreters, I have realized that many medical interpreters share the feeling that although, in theory, the standards of practice created by organizations such as IMIA, CHIA and NCIHC serve a purpose, in practice each interpreter must do what s/he feels is “best” for the patient.

This belief is prevalent among interpreters who have not received formal training since the publication of these Standards (1997-2005). Many of these “grandfathered” interpreters are extremely proficient when it comes to language fluency and message conversion skills, but they lack an updated outlook on the ethics and role boundaries of our profession. Often, these are the interpreters who take the lead in training newcomers to our profession in community programs and even at the college level.

So many interpreters have dedicated so much of their time and efforts to the reduction of health disparities that, whether consciously or unconsciously, they begin to feel they deserve to make up their own policies regarding “good interpretation” as long as they have the patient’s “best interests” in mind. While looking out for a patient’s interests can bring positive results, a misdirected advocacy can also do much to harm the patient-provider relationship.

Here are some stories I have heard in recent conversations with active interpreters.

“Patients from my cultural group don’t understand how things work in America. So after we see the provider, I give the patient the contact information for local social service organizations. Doctors are very busy, and it’s not right to take too much of their time when I myself can direct the patient to specific services.”

“I once interpreted for a poor family that had come to the U.S. for medical treatment. They had very little money and felt quite isolated due to the language barrier. So I went to church and told their story to my congregation. Soon, the family began to receive visits from church members. I know this helped them feel better during their stay in this country.”

*“If I’m interpreting and I feel that the patient should get a second opinion,
I probe the patient to see if this is what s/he wants. After I interpret the provider’s diagnosis, I ask the patient (in the target language, of course), ‘Do you want to see another doctor?’”*

“One provider was so rude to my patient, that at the end of the session, I offered to rebook the patient’s appointment with a different provider. I never want any of my patients to be seen by that provider!”

What were your thoughts as you read these interpreters’ comments? Was there one statement that bothered you more than another? If so, why?

I did a little research on the term “advocate”. Using an Internet language reference, I found, among others, the following definitions:

1. A person who speaks or writes in support or defense of a person, cause, etc.
2. A person who pleads for or in behalf of another intercessor.
3. One who argues for a cause.
4. To push for something.

The concept of the interpreter as an “advocate” is outlined in several current standards of practice. The National Council on Interpreting in Health Care states, “When the patient’s health, well-being or dignity is at risk, an interpreter may be justified in acting as an advocate.” Similarly, the California Healthcare Interpreters Association comments, “In this role, interpreters actively support change in the interest of patient health and well-being.” Clearly, then, the medical interpreter may need to step into the “advocate” role from time to time. But do the current Standards support any of the above-mentioned interventions?

Current Standards support the concept of the interpreter as one member of a cross-dimensional healthcare team. That team may also include a wide

range of professionals, such as physicians, physician assistants, nurses of all levels and specialties, social workers, medical and nursing assistants and other personnel, both clinical and non-clinical. At times, the interpreter may be the first member of this team to become aware of a patient's needs. But does this mean that the interpreter is always the best person to meet those needs? Or, is the interpreter more of a facilitator bringing the needs of the patient to the attention of the professional best equipped to assist the patient at that moment?

For example, in the case of the patient in need of social services, is the interpreter the best person to decide which organizations would best serve the patient? Or, is there a staff member, a provider or social worker, better equipped to make that decision? The International Medical Interpreters Association requires interpreters to "ensure that concerns raised during or after an interview are addressed and referred to the appropriate resources." As an example, these Standards state that the interpreter should 'encourage the provider to make the appropriate referrals' and that the interpreter who 'takes it upon him/herself to solve the problem' is in fact indicating a lack of mastery (lack of professionalism).

While an interpreter may advocate on behalf of a party or group to correct mistreatment or abuse, is it appropriate to go ahead and reschedule a patient's appointments or to advise the patient to seek a second opinion? The NCHIC standards recommend a different approach to addressing possible mistreatment, "An interpreter may alert his or her supervisor to patterns of disrespect towards patients."

What would happen if the interpreter were to confront the provider directly? CHIA comments, "The health care provider or staff member may resent the interpreter's efforts. They might react in a way that actually diminishes quality of care or access for the patient. Lasting resentment may have a long-term impact on the interpreter, resulting in a less effective working relationship. Depending on the type of patient

advocacy intervention and whether the action is discussed with the patient, interpreters also risk usurping patient autonomy in determining how their cases are handled."

In the case of the interpreter who altered her congregation to the plight of a patient's family, do you not feel that she crossed professional role boundaries, the least of which, patient confidentiality? Could it be that the patient's family resented this breach of their private information and the many visits that followed this unsolicited intervention?

In short, professional interpreters must follow professional guidelines. While old habits can be hard to break, keeping pace with the advances in medical interpretation will benefit us as interpreters. It will also promote healthier relationships between the providers and the patients we serve. Before taking action as a patient advocate, take a deep breath and mentally revisit the "Six W's" that help us to differentiate between our own opinions and what may actually be best for the patient. Ask yourself:

- Who owns this information? (In the case of a perceived patient need)
- Whose job it is to share the information?
- With whom can I share it?
- Who is going to be affected by my actions?
- What does the law say?
- Would a professional interpreter association support my action?

It takes humility to acknowledge that we don't always know what's "best" for our patients. Sometimes our perspective is slanted by our own personal biases. But as long as we operate within the parameters set forth in our professional standards, we will be protected in our work as professional medical interpreters.

Resources:

<http://www.mmia.org/standards/standards.asp>
<http://www.nchic.org/mc/page.do?sitePageId=57768&orgId=nchic>
<http://www.chia.ws/standards.htm>

ONLINE MEDICAL LINKS

COMPREHENSIVE SITES

★★★★ **Health On The Net Foundation** - this is an extraordinary multilingual site (Eng - Fr - Ger - Spa - Port - Ital - Dutch). Should you enter, for example, Dental Prosthesis you will get a hierarchy of information slot that lists all possible aspects of the topic to choose from: definition, synonyms, research articles, web resources, medical images, medical news, medical conferences, clinical trials and more depending on the main subject requested

<http://debussy.hon.ch/cgi-bin/HONselect?browse+C14.907.800>

★★★★ **MedBioWorld** - this site links you to all online medical dictionaries plus acronyms, abbreviations, encyclopedias and glossaries, including a Multilingual Glossary of technical and popular medical terms in nine European Languages

[http://www.medbioworld.com/MedBioWorld/TopicLinks.aspx?type=Reference%20Tools&&category=\(All\)&&concept=Medicine](http://www.medbioworld.com/MedBioWorld/TopicLinks.aspx?type=Reference%20Tools&&category=(All)&&concept=Medicine)

★★★★ **MediLexicon** - this site contains links to medical abbreviations, medical dictionary, ICD-9 search (definitions and codes used to code and classify mortality and morbidity date, drug search, medical equipment & surgical instruments and other areas such as hospitals, associations, pharmaceuticals, etc.

<http://www.medilexicon.com/>

★★★★ **healthfinder.gov** /// site of the US Dept. of Health and Human Services will link to:

- Medline plus Medical Encyclopedia (every page is also available in Spanish)
- Deciphering medspk
- Kids Health Dictionary

★★★★ **MedlinePlus: Medical Dictionary** - has been replaced by the Merrian-Webster Medical Dictionary

<http://www.nlm.nih.gov/medlineplus/plusdictionary.html>

★★ **Medical Matrix** - Guide to Internet Clinical Medicine, Specialties, Diseases, Clinical Practice, Literature, Education, Healthcare Professionals

<http://www.medmatrix.org/index.asp>

★★ **HEALTHLINE** - Health Search Engine: Diseases, Conditions, Drugs, Symptoms, Dictionary of Health and more.

<http://www.healthline.com/>

The Free Dictionary links to Medical, Legal and Financial Dictionaries, Acronyms, Idioms, Encyclopedia

<http://www.thefreedictionary.com/>

OneLook. - multipurpose site that links to dictionaries, reverse dictionaries, glossaries, definitions, translations and other possibilities.

<http://www.onelook.com/>

Mediindia.net - this site has among many others sections, Homeopathic Medicine, Alternative Medicine, Doctors Lists, Directory of US Hospitals, and more.

<http://www.mediindia.net/>

MedicineNet.com - multipurpose medicine site produced by doctors. Sections include: Diseases and Conditions, Symptoms and Signs, Procedures and Tests, Medications, Health and Living and a MedTerms dictionary

<http://www.medicinenet.com/script/main/hp.asp>

ACRONYMS

Acronym Finder

<http://www.bioinformatics.org/textknowledge/acronym.php>

<http://www.medindia.net/acronym/Index.asp?page=2&startpage=1&Alpha=A>

This site contains some 461 medical acronyms as well as Latin medical terms

ACRONYMS - Medical & Professional Degrees and Credentials

http://www.sandiegobizmart.com/tools/t3_acronym_glossary.htm

ACRONYMS - Holistic Practitioners Certifications & Credentials

http://www.sandiegobizmart.com/tools/t3_acronyms_holistic.htm

MEDICAL DICTIONARIES

Med Terms Dictionary - part of MedicineNet.com

<http://www.medterms.com/script/main/hp.asp>

Nursing Dictionary

<http://www.rtstudents.com/rnstudents/rn-dictionary.htm>

Medical Transcriptionist Desk

<http://www.mtdesk.com/frame.php?frame=main>

Online Graphic Dictionary (VISUWORDS)

<http://www.visuwords.com/fullsize.php>

Dictionary of Cancer Terms (English and Spanish)

<http://www.cancer.gov/dictionary/>

National Cancer Institute Drug Dictionary

<http://www.cancer.gov/drugdictionary/>

SURGICAL SITES *(to be expanded)*

Online Surgical Dictionary

<http://onlinesurgicaldictionary.com/>

Plastic Surgery Dictionary

<http://www.aaronstonemd.com/plasticSurgeryDict.html>

American Brain Tumor Dictionary - by the Massachusetts General Hospital. Dictionary, Clinical Centers, Research, Education, Support Groups.
<http://neurosurgery.mgh.harvard.edu/abta/diction.htm>

GLOSSARIES

Glossarist - this site links you to medical glossaries and medical dictionaries

<http://www.glossarist.com/glossaries/health-medicine-fitness/medical.asp>

Managed Care Terminology Glossary

<http://www.pohly.com/terms.html>

Clinical Trials Glossary

<http://www.clinicaltrials.gov/ct2/info/glossary>

Biotechnology in Food and Agriculture Glossary

http://www.fao.org/biotech/index_glossary.asp

Glossary of Biotechnology and Genetic Engineering

<http://www.fao.org/DOCREP/003/X3910E/X3910E00.htm>

World Health Organization

<http://www.who.int/en/>

DENTAL TERMINOLOGY

American Dental Association Glossary of Dental Terms

<http://www.ada.org/public/resources/glossary.asp>

A Dictionary of Dental Terms

<http://www.bracesinfo.com/glossary.html>

Dental Terminology

<http://www.qualitydentistry.com/dental/terms.html>

Dental Terminology

<http://www.azda.org/Public/QA/Term.asp>

Dental Procedures Terminology

<http://www.dentalplans.com/moreinfo/dentaldefinitionsandprocedures.asp>

MEDICAL INTERPRETATION

Health Care interpretation - The Terminology of Health Care Interpreting - A glossary of terms

<http://www.ncihc.org>

ARCHAIC MEDICAL TERMINOLOGY

Archaic Medical Terms - a remarkable site. Not only old medical terminology, but folk and slang terms, symbols, abbreviations, common causes of death in the past and more.

http://www.paul_smith.doctors.org.uk/ArchaicMedicalTerms.htm

Old Medical Terminology - a long listing of old medical terms with its modern equivalents, in alphabetical order.

<http://www.rootsweb.com/~usgwkidz/oldmedterm.htm>

VARIOUS SUBJECTS

All about soaps - definitions and acronyms Eng > Spa

<http://www.ccnphawaii.com/glossary.es.htm>

Glossary of Vascular Terms

http://wwwp.medtronic.com/Newsroom/LinkedItemDetails.do?itemId=1199741324094&itemType=glossary&lang=en_US

ENLACES EN ESPAÑOL

Pequeño glosario ingles-español de terminos jergales y coloquiales en medicina 2da parte: K-Z Fernando Navarro: - Revista Panacea

Primera parte A-J

<http://www.medtrad.org/panacea/IndiceGeneral.htm#Vol 6 -21>

Segunda parte K-Z

<http://www.medtrad.org/panacea/IndiceGeneral.htm#Vol 7-23>

Vocabulario ingles - español de bioquímica y biología molecular

<http://www.biorom.uma.es/contenido/Glosario/index.html>

Wikilengua del español

<http://www.wikilengua.org/index.php/Portada>

Organización de Salud y Seguridad en el Trabajo

<http://www.mtas.es/insht/EncOIT/Index.htm>

Diccionario Reverso Collins para ingles, frances, español, alemán, italiano, ruso y chino

<http://diccionario.reverso.net/>

Diccionariop de siglas médicas y otras abreviaturas y términos medicos relacionados con la codificación de las altas hospitalarias

<http://www.scribd.com/doc/2085717/Diccionario-de-Siglas-Medicas>