

The Medical News Report, October, 2013

#21

This report will continue to have more segments on cervical spine surgery, healthcare issues, and some huge news about angioplasty on coronary arteries when a heart attack occurs. We will also discuss **cardiac arrest and chest compression only CPR.**

You can sign up for **Obamacare this month, but I would advise waiting awhile because of the expected glitches. You should know that for it to be successful, young healthy people have to sign up (with as much as 100% increase in premium) by the thousands. Did you know all they have to do is pay a \$95 fine if they don't. The fine will be added to their IRS bill in 2015. Also, did you know that if they get sick, they can run to their local Obamacare website and sign up then (since there is no waiting time and no pre-existing disease can block their insurance). **Which would you do?** Without this mass of young people signing up, Obamacare is going to be in trouble financially. On the other hand, 7 million Americans are predicted to sign up in 2014, and 5 million will be subsidized by the government. It is great to insure the working poor. I just hope we can afford what the insurance companies are going to do to our premiums. The upper 50% of the population is paying for the lower 50%. A tough situation.....I have read that premiums for the exchanges are apparently going to be lower than expected....It needs to be affordable for somebody.**

Subjects covered this month:

- 1. Cardiac Arrest/CPR/AEDs**
- 2. New information on angioplasty and stents in the face of a heart attack**
- 3. Good news for Big Pharma, bad news for hospitals**

4. **Robotic surgery...is it better?**
5. **Sleep—why do we need it, and what happens if we don't get enough—Part 1**
6. **Do you know “Molly”?**
7. **Cervical spine surgery—another edition of the spine series**
8. **October is BREAST CANCER AWARENESS MONTH- part 1 of an extensive breast cancer series**
9. **Follow up on report about mesh implant repairs for pelvic prolapse**



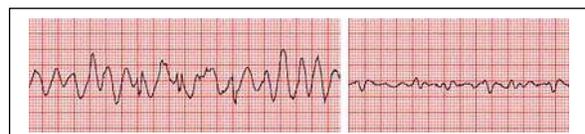
The LaMontes

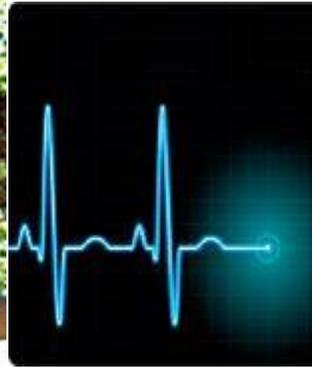
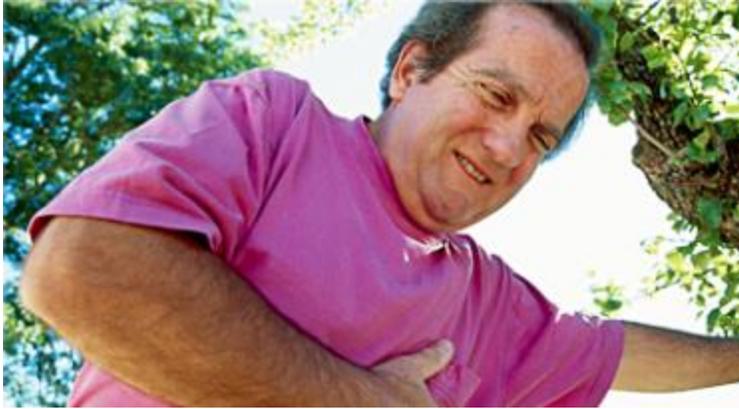
1. Cardiac Arrest and CPR/AED

There is nothing more devastating than to watch someone suddenly fall to the ground with no heartbeat. Actually there is a heartbeat, but there is no pulse. What actually is happening is **ventricular fibrillation and then cardiac standstill. This arrhythmia does not sustain any appreciable blood being pumped out of the heart. The heart is actually quivering from this event. You can check for a pulse, but you will not feel one. SO WHAT DO YOU DO?? STAND THERE AND FREEZE, OR DO YOU TAKE ACTION?**

Heart attack? Assume it is! Dial 911!

Ventricular Fibrillation





Normal EKG rhythm

Chest compression only CPR (cardio-pulmonary resuscitation), if started within 4 minutes of cardiac arrest and defibrillation is done within 10 minutes, there is a 40% chance of survival!! Every minute wasted loses 10% chance of recovery. The defibrillator will shock the heart and stop the heartbeat momentarily, and it is hopes that the heart will restart with a normal heartbeat.

IF A PERSON HAS NO MOVEMENT OR EVIDENCE OF BREATHING (GASPING IS A SIGN OF CARDIAC ARREST), ASSUME THIS IS A CARDIAC ARREST....IT IS TIME TO START CARDIAC MASSAGE BY QUICK COMPRESSIONS ON THE CHEST (100 COMPRESSIONS PER MINUTE). Don't be surprised if you hear ribs cracking. If you are doing CPR correctly, you can expect that in an older person. The latest technique does not recommend any breathing for the patient especially if a novice. This should be performed on anyone over 10-14 years of age (puberty). Infants, children, and drowning victims need breathing and chest compression. Compressing the chest 2+inches will force air out of the lungs and in between those compressions air will automatically rush into the lungs.

Watch the video attached.

Note: you must be over the patient with your elbows locked to perform chest compression and your hands need to be locked on top of each other.

There are steps you must take if outside in public:

- 1. Look around and be sure there is no impending danger in the immediate area (water standing under the patient, fire nearby, etc.)**
- 2. Yell for help (the new AHA course does not expect novices to be able to correctly check for a carotid pulse)**
- 3. Point to a person and tell them to dial 911. If you are alone with the victim, call 911 first and then begin CPR.**



Provide operator with:

1. Your location
2. Your phone number
3. Type of emergency
4. Victim's condition



4. **Make sure there is no movement or breathing (except gasping) by the person. Shake the shoulders and ask, "Are you OK?" If the person is in bed, pull the person on the floor (you must have a firm surface under the patient for cardiac compression to be effective).**
5. **Rip open their shirt and expose the bare middle chest (if AED is available)**
6. **Start cardiac compression (see technique) 100 times a minute**
7. **While starting compression, if in public, ask if there is an AED (automated electrical defibrillator) close by. Tell someone to go find one.**
8. **Every minute counts, and you will fatigue very quickly, so if someone else is there, alternate every few minutes. Try to continue compressions until EMS arrives. AED—automated electrical defibrillator are frequently available in public places.**

ZOLL AUTOMATED ELECTRICAL DEFIBRILLATOR (the type in Sky Valley)



As soon as the AED is available, PULL OUT THE CONTACT PADS; pull off the backing and place the two sticky pads on the upper chest on the RIGHT, and lower lateral chest on the LEFT (the pads are marked---If they are hairy, rip their hair away, shave or whatever it takes to get good contact with the skin, but don't waste time if by yourself.

9. The **AED** has automatic voice instructions, or pictures to guide you. Once the pads are on, turn on the machine if not automatic, and the AED will automatically start to check for a heartbeat. If there is none, the AED will automatically shock the patient. Before the shock is given, there will be a voice warning you "To Stand Back". Be sure you are not in contact with the patient or you will be shocked. The patient will jerk with the shock, and then the AED will check automatically for a heart rhythm. If there is none, the AED will shock again. The AED will not work unless the patient is in cardiac ventricular fibrillation. If not successful, turn AED off and restart chest compression. After a few minutes, try the AED again.

10. Hopefully by then the patient will start coming around or help will be there. **PLEASE NOTE:**

This instruction may differ slightly and in no way a substitute for taking a certified course from the American heart Association. I organized a CPR course a few weeks ago thanks to the Sky Valley/Scaly Mtn. Fire Dept. and we certified 10 local residents. Thank you!!

Hopefully the above will help you have the **courage** to act in case of have a an emergency, but most importantly sign up for a CPR course. **You have a chance of saving a life.**

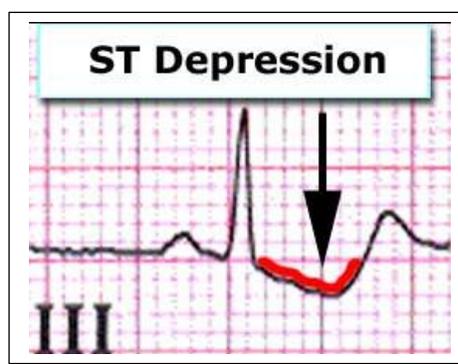
Also note, there are slight differences in brands that make AEDs, but the same principle applies. The Zoll company is the one that Sky Valley and Scaly Mtn. have. If you want to buy one for your home, check with the experts before purchasing, and make sure you know how to use it.

DON'T PROCRASTINATE! GET CERTIFIED!

Sky Valley, Georgia in October



2. New information on coronary artery stenting



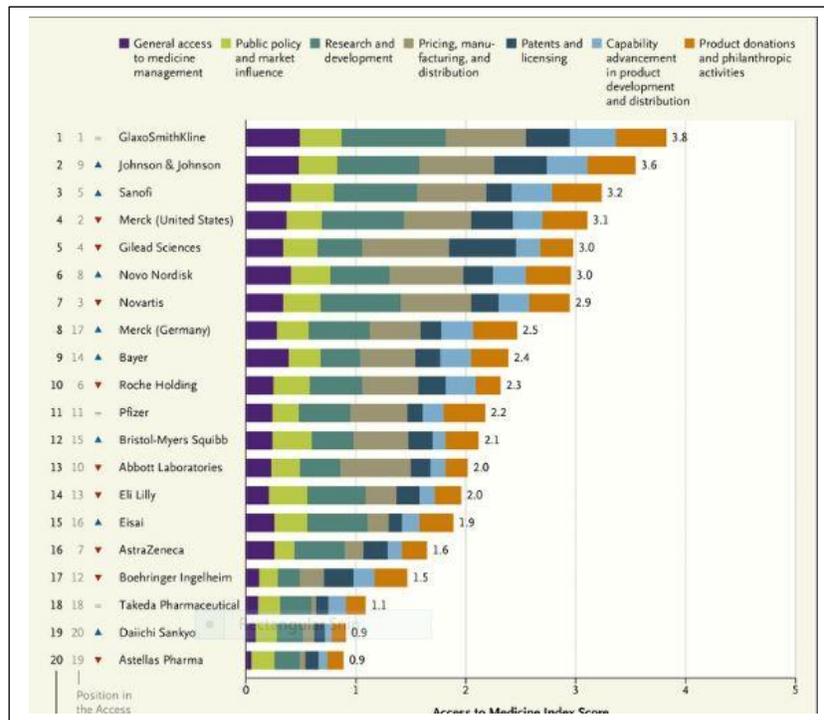
If a patient has evidence of an acute heart attack (EKG evidence of ST-segment depression—an electrical abnormality of the heart), the time from the ER door to having an angioplasty with a stent is critical. Time is just as important as it is in a stroke (3-4 hrs to get clot buster). The NEJM reported only a 3.7% risk of death if this time is 90 minutes or less. Later than 90 minutes, patients showed a 7.3% death rate. If someone with cardiac arrest has the good fortune of making it to the hospital, balloon angioplasty with or without a stent is critical. Now the NEJM reports increased survival rates and decreased death rates over 4 years if not only the blocked coronary is opened, but all coronaries with 50%+ blockage are stented too. This is brand new information!!! We will have to wait and see if insurance covers this more aggressive approach. It makes sense to me, since a 50% blocked vessel is more than likely to block off in the next few years. Remember, this is only for proven EKG evidence (and other tests) of an acute heart attack.



Inactivity is still the number one reason for heart disease, and 37% of our country has some form of heart disease. Proper diet plays a big role, and the Mediterranean Diet leads the pack (see above).

3. Some good news for Big Pharma, bad for hospitals

In a recent article, the 20 biggest pharmaceutical companies are providing medicine to developing countries at low cost. There is much more expense for these companies to provide medicine that does not require refrigeration, safer vaccines, access to treatment issues, etc. The countries include 2 billion humans. This is benevolent on one level but it does give these companies an opportunity to sell their drugs worldwide. The graph below shows how well these companies are doing with their generosity. Why do you care? These companies must be profitable to invest in research. It is only fair to point out that they need to be giving back. Helping developing countries is the right thing to do. Business is business, but they have taken a lot of hits lately with all the law suits for practices that are not lawful (bribery of doctors, marketing off-market uses, patent issues, paying generic companies to not start producing a generic form of a brand name, etc.). The graph is on the next page.



While I am complimenting Big Pharma, I have to scold hospitals. I read a weekly health reform email from IBJ, a firm in Indianapolis, and they cited a study put out by a Wash. D.C. Center for Studies on Healthcare Change. They stated that in Indianapolis the hospitals are charging 264% more for outpatient procedures than what Medicare pays for them. That means if you have a huge co-pay, you could be stuck with a big bill. The hospitals and doctors have to accept what Medicare pays, so the hospital just writes it off. But if you had private insurance, you could be in trouble. This study also pointed out that doctors and hospital's bills are routinely 10-20% more than what Medicare pays, but by law, you do not have to pay the difference, but private payer do. Why can't the health systems get their act together with insurance companies? Just like our tax system is so complex, so is the way a hospital calculates what they charge.

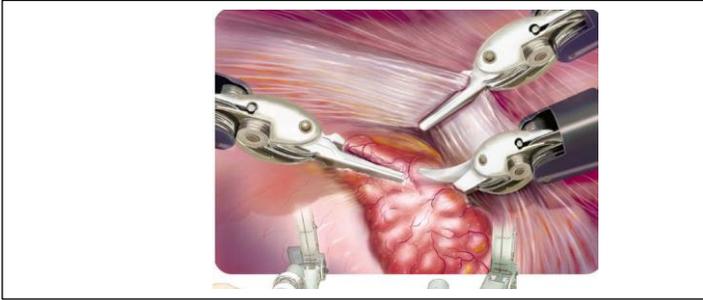
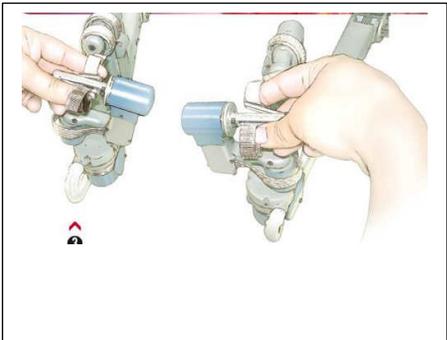
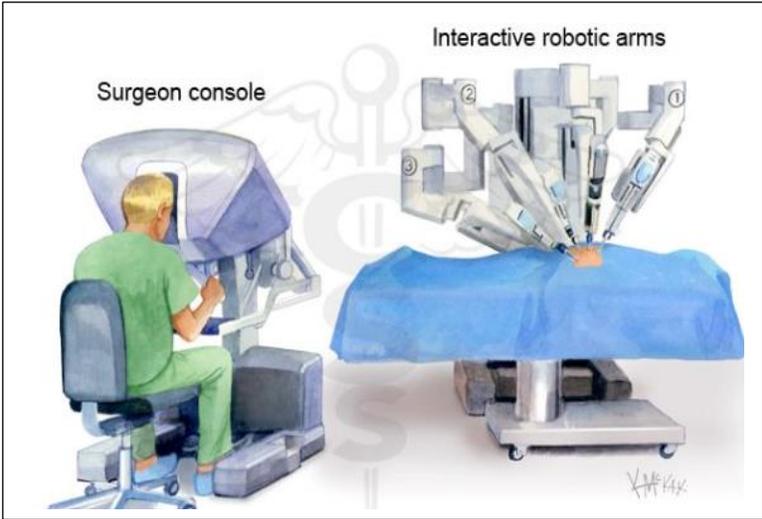
One last shot at Big Pharma. Doctors are really getting upset with them when it comes to the costs of cancer drugs. An average cost per month for these drugs can be \$10,000 per month. Doctors at Sloan Kettering refused to use one drug, and the drug company negotiated about a 50% discount. The doctors should be in on this fight.

Big Pharma does care, but it appears they care a lot more about the bottom line. However they make expensive drugs available to indigent patients, especially the working poor, donate millions to charitable organizations, and try to be good stewards. Yes, they still make billions, but without them..... we have less research. My friends in the industry tell me that they are cleaning up their images more effectively, but they have a long way to go to have a positive image with the general public. Prices for new drugs, especially cancer, are outrageous.

Sky Valley's own water fall!! Awesome(on the next page)



4. More information about Robotic Surgery



The Robotic system allows a doctor to perform surgery with several small incisions, which “arms are strategically placed to do the surgery. The surgeon sets and manipulates these arms in the operating table. These toggles allow very fine movement of these mechanical arms to do essentially what a surgeon would do with a hands-on procedure. Gynecologic and urologic surgery accounts for 10 out 12 procedures using the device. There have already been articles stating clearly that it gives no benefit for hysterectomy, and now we are seeing more complications from the device. Under-reporting of these incidents are coming out now. The company is being covered up with law suits. New technology has its benefits. Remember, robotic surgery is relatively new, and long term consequences of these technologies remains to be reported.

For prostate surgery, it was supposed to increase the ability of the surgeon to spare the nerves required to develop and sustain an erection. The system clearly is very operator dependent. 2% of complications are now being reported. Would those complications have occurred with open surgery? I have yet to read an article comparing these 2 options in the best of hands. No surgery or treatment is without complications and side effects.

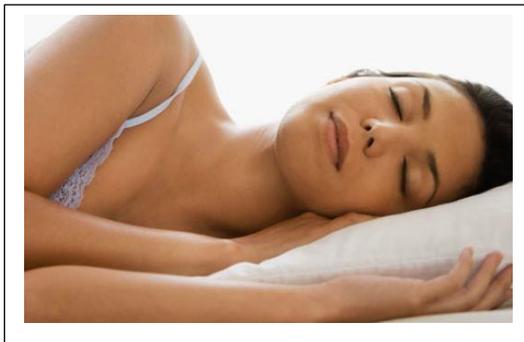
Over 2000 of these systems have been installed around the country in hospitals, and it is very expensive. It becomes a marketing tool to recruit patients, and it makes big bucks for hospitals. Robotic technique may be for you but do your homework. Does the extra cost seem worth it for a potentially better surgical technique? The jury is still out (not to make a pun!!).

Advances in technique such as robotic surgery or the use of the proton radiation instead of photon X-rays for certain cancers are wonderful when used appropriately. But in the era of cost-containment, Obamacare, etc., should we be paying thousands more for treatments that are no better than other less expensive techniques? Get more than one opinion if you are to undergo surgery using robotic technique or newer radiation techniques. I just read an article that stated several big insurance companies are in the process of paying much less than they originally agreed to pay for proton radiation treatment (\$35,000 vs. \$12,500 in some cases). A procedure fee should really be for treatment rather than the way it is treated. Of course, that is a controversial statement. Hospitals are in business to make money, and they are no different than any other business.

Below is the 15th hole of the Sky Valley golf course. Wow!!



5. Sleep—why is it necessary, and what happens without it? Part 1



Rest is necessary for all of us, and good natural sleep is medically necessary to function. From birth, we spend a third of our life sleeping, and when we are deprived, there are many risks for medical problems. For infants 16-18 hours are necessary, and teenagers require 9-10 hours of sleep a night. Adults require 7-8 hours, and for seniors, even more for some since REM occurs often and the deep sleep part of the cycle is less.

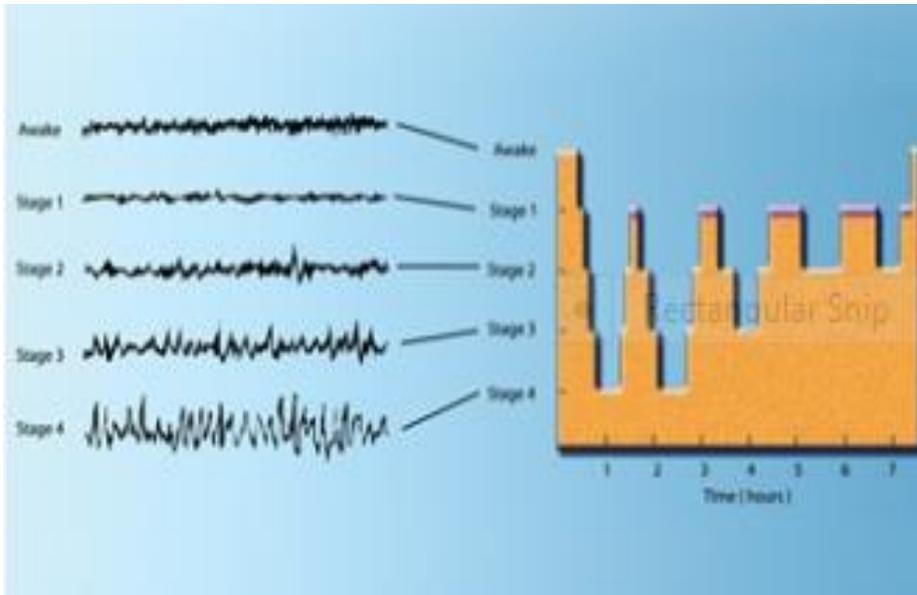
The risk of disease rises rapidly with poor sleep. It is one of the most common problems that take us to the doctor, and recent reports show that we are taking more and more sleep aids. 4% of adults take sleep aids, including sedatives and hypnotics. Women take more than men, and report more sleep disturbances. Use increases with higher education. If diagnosed with a sleep disorder, 16% are given sleep aids. It is reported that 50% of Americans have insomnia some of the time, and yet only 4% have prescribed certified sleep studies.

When we sleep, our brains are more active than when we are awake. Certain brain waves undulate through cycles at night from light to deep sleep and are necessary for restful sleep. This includes REM (rapid eye movement) sleep, which is quite deep and is when the body is the most relaxed. This is when you dream. With too much or too little REM sleep, we have problems.

Sleep hygiene is very important to create a positive environment for sleep. Sleeping environment is a must for good sleep.

5 stages of sleep—

See the diagram that shows the STAGES OF SLEEP WITH DIFFERENT BRAIN WAVES THAT DETERMINE THE STAGE.



Stage 1--There is decreased activity between wakefulness and stage 1. It is easy to awaken, and if you are awakened, you might feel you really aren't asleep. This stage lasts 10-15 minutes and is accompanied by sleep jerks (hypnic myoclonia).

Stage 2--The light sleep stage with intermittent peaks and valleys with positive and negative waves with periods of muscle contraction and relaxation. The heart rate slows and the body temperature drops.

Stage 3 and 4--These are characterized by increasing depth of sleep with more "delta sleep". If aroused at these stages, you will be slightly disoriented.

Stage 5--REM sleep--REM sleep begins about 90 minutes after going to sleep, and lasts about 10 minutes, increasing in length with each cycle. This stage is characterized by increasing brain activity, as if we were awake, and the eyes move under the lids back and forth. Respirations increase and can be erratic. It is during REM sleep that obstructive sleep apnea is the worse. It is also when we dream, and our body is as close to being paralyzed.



It is during these sleep cycles that the body rejuvenates. The immune system is enhanced, and bone and muscle cells are built, while tissues are repaired. Some say they only need 5 hours or so, but the body is just used to that amount. The body does not adapt to less sleep.

Sleep disorders such as insomnia should be evaluated based on an underlying cause. Those causes must be ruled out to make a correct diagnosis. Lack of good sleep leaves us groggy, foggy, irritable, fatigued, prone to depression and anxiety, and cranky. It impairs cognitive issues such as our judgment and memory, enhances the perception of pain, and aggravates many disease states including diabetes, heart disease, psychological diseases, and auto-immune diseases. Motor skills are impaired, with fatigue. We all have our own measurements for what we call a "GOOD NIGHT'S SLEEP". Only you can define that.

The International Classification of Sleep Disorders are divided into 8 categories. We will explore these, and I will report on these disorders in future reports. Sleep disorders creates big pharmaceutical business, and I will discuss the treatment (prescription and OTC) of these as well.

Classification of insomnia/sleep disorders (in the next few reports)

- 1. Sleep related breathing disorders (i.e. obstructive and central apnea)**
- 2. Hypersomnias of central origin**
- 3. Circadian rhythm disorders (shift work, etc.)**
- 4. Parasomnias (sleep walking, bruxism, night terrors, etc.)**
- 5. Sleep related movement disorders (restless leg syndrome)**
- 6. Narcolepsy with and without cataplexy**
- 7. Isolated symptoms**
- 8. Others**

A view from my deck!



6. Do you know Molly?

I doubt you know Molly, but there is a good chance your kids or grandkids do. Welcome to the latest street drug that will hit the playgrounds and dance clubs in America. I know you have heard of ecstasy or “X”. That is 3,4 methylenedioxy-N-methylamphetamine. This chemical has been around a long time, but it is now in a more purified form. It is MDMA to chemists, and “Molly” on the streets. Some even call it “Mandy”. Ask your family if they heard about “Molly”. Aren’t drug effects attractive?

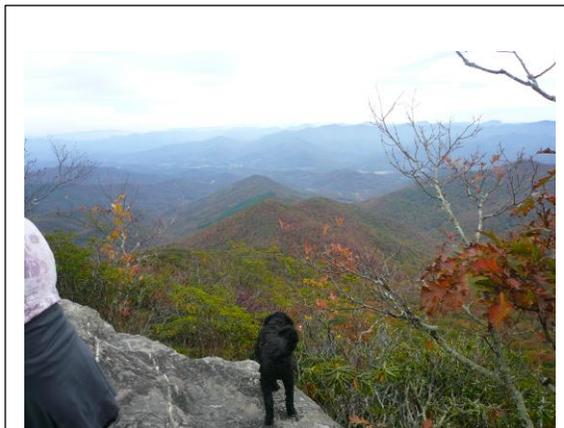


Symptoms include euphoria, a sense of intimacy, decreased anxiety, mild psychedelia (a little LSD on top of amphetamine). It has been used in special psychological unique sessions. It has been used in PTSD and terminal cancer patients with some good response. In 2008, it was estimated that 10-25 million people use it globally. It is especially common in dance clubs (“raves”). It is combined with other illegal drugs as well. And don’t forget your kids stealing your narcotics out of your medicine cabinet. Young people like to suck on candy especially one that is mentholated or peppermint. This drug enhances the taste. Side effects include grinding of the teeth, dry mouth, large pupils, jaw clenching, difficulty listening or concentrating, and decreased appetite.

There have been several deaths from overdoses. Overdose clinical signs include disorientation, muscle rigidity, convulsions, cardio-renal toxicity.

Drugs are alive and well. Do you still think pot and “bath salts” are innocent? They are called starter drugs for the real stuff. Be a responsible parent or grandparent and BE ON THE ALERT.

My dog, Bentley, is checking out the leaves from “Pickens Nose”. This is near where we live!



7. CERVICAL SPINE SURGERY



Ruptured disc

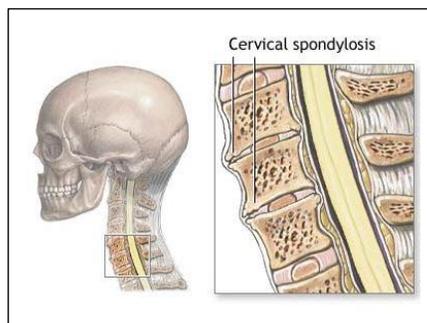
The neck has the part of the spinal cord that has connections to the heart, breathing, and movement of the arms and legs, therefore injury or surgery is more critical. I personally prefer neurosurgeons for cervical spine surgery, although there are outstanding specially trained orthopedists that are equally qualified.

Like any part of the spine, there are various reasons for needing surgical intervention.

1. Ruptured disc 2. Spinal stenosis 3. Arthritic spurs 4. Fractures 5. Tumors

The problem is impingement of the spinal cord or the spinal nerves causing numbness, tingling, pain, or weakness of the muscles of the neck, shoulders, and arm. The most common cause is arthritis. It can cause spurs to pinch the nerves as they go out between the vertebrae, or lipping of the vertebrae (spondylosis). A ruptured disc impinging on a spinal nerve or spinal cord can also be the cause. Spinal stenosis is also caused by arthritic changes on the inside of the vertebrae pushing on the spinal cord itself.

All of these conditions can go on for years without much trouble, and without warning cause severe pain, numbness, tingling, or weakness of the muscles that the nerves supply. Refer back to previous reports for more details.





Surgery on the cervical spine must include not only removal bone for exposure of the area in trouble but the disc which also may be pressing on the spinal cord (stenosis) or cervical nerves. For the lowest cervical spine vertebrae (C-5-6 and 6-7), the procedure can be done from the back (posterior) of the spine. The advantage from the posterior approach is the part of the vertebrae that is removed usually does not create instability, and therefore fusion is not necessarily required. Before the 1960s, most surgery was done from the back, but thanks to some innovative neurosurgeons (Cloward), the anterior approach was refined. This means a lower neck incision is required over the carotid, and exposure is quite easy to the front of the body of the vertebrae. Surgery from the front requires more bone to be removed, but gives better exposure to the areas needing treatment. Either a bone graft (from the hip or cadaver bone) or basket with screws filled with bone marrow and chips is used to fuse the vertebrae together. Loss of range of motion is also possible for some time or permanently. This is serious surgery, but in the face of muscle weakness from a pinched nerve will leave you a permanent deficit if not treated.



Complications are unlikely, but when they occur, they can be serious. Bleeding, spinal cord damage, and nerve damage to the vocal cord or spinal nerves can occur. Damage to the esophagus (perforation) can also occur. Postop swallowing trouble, however, is usually only for a short time, but can be prolonged. Rotating the larynx out of the way can cause swelling (since the endotracheal tube goes through the larynx to the lungs) and result in hoarseness.

Having had all 3 areas of the spine operated on personally has given me plenty of understanding what this surgery is all about, but if you have progressive weakness of certain muscles, you are considered a reasonable candidate for surgery. Numbness and tingling may go away, but if you wait to have surgery with muscle weakness, even with the best surgeon, you may not get all the strength back. Second opinions are recommended to give you more satisfaction that you are hearing the same message from the surgeon. Results are never guaranteed. Physical therapy is a must to recover. Have an expert therapist help you recover.

Physical therapy, massage, stretching, yoga, and a serious will to get better are required to get the best results and recover in a timely manner. The surgery does not always work, and it takes time for pain to go away. Stay in shape, get in shape, and remember, YOU ARE PART OF THE SURGEON'S TEAM, WHICH MEANS YOU HAVE WORK TO DO TO GET WELL.

8. October is breast cancer awareness month— recommendations for breast screening

The American Cancer Society is currently working on a literature review in cooperation with a contract with Duke University Medical Center to revise the breast screening guidelines. I am honored to be a member of that national committee, and we have devoted a great deal of time and money to be able to revise these recommendations. I have spoken about these screening guidelines before, and will provide a link to these current guidelines. We will not be prepared to announce these new recommendations until later next year. For now, I am comfortable with the ACS recommendations on www.cancer.org/breastscreening

The bottom line is to talk with your doctor about when and how often you need to have a mammogram. A recent Massachusetts study showed that ¾ of women that die of breast cancer did not have routine breast screenings. That only goes for totally asymptomatic women. The ACS still recommends starting with a base mammogram at 40. That could change for anyone with genetic predisposition, implants, family history, etc. Remember, breast cancer before 50 is usually more aggressive, and MAMMOGRAMS SAVES LIVES! Studies prove these points. If a cancer in the breast is palpable, you have already lost valuable time, are still very curable. The earlier the better!!

There has been plenty of controversy when the USPTF (US Preventative Task Force), which has been firing out different recommendations on many cancers, and has confused the public. There is no question, that false positives create morbidity (unnecessary biopsies, infections, damage, unneeded stress, extra tests). Also false negatives can occur that falsely relieve you of stress, and that is why any group (including the ACS) will tell you to discuss this with your doctor.

Studies continue to show that cosmetic breast implants create difficulty in diagnosing very early cancers. There are special techniques for patients with implants, but there is no guarantee. One study reported that if a cancer is present in a breast with an implant, there is a 40% chance of the cases being diagnosed at a later stage. Big breasts that are very fibrous also are harder to diagnose cancer, even with special techniques. Of course, there are many subgroups that need special consideration, including family history, genetics, previous cancer, high risk factors-obese, diabetes, immune suppression, etc.). Breast cancer patients also have a higher risk of ovary colon, stomach, melanoma, pancreatic, and renal cancer. These are observational studies, and the reason is not totally clear. Genetics probably play a role yet to be clarified.

Prevention and early detection are two of the best tools we have for early diagnosis, treatment, and higher cure rates. I will report on this and many other aspects of breast cancer as we go through the next few months. For this report on screening guidelines, link up to the American Cancer Society's website www.cancer.org

The NCCN website is another www.nccn.org (This is the National Comprehensive Cancer Network)

In the next few reports, I will report on:

- 1. Risk Factors for breast cancer, including BRCA gene mutations, including preventative considerations**
- 2. Diagnosing and staging breast cancer**
- 3. Treatment considerations**
- 4. Long term anti-estrogen therapy-Tamoxifen**
- 5. Metastatic and recurrent breast cancer—Clinical Trials**
- 6. Survivorship issues—Rehabilitation, breast reconstruction, side effects**

9. Follow up on pelvic mesh implants for pelvic prolapse vs. no mesh

I came across a recent article that compared 3 year results with and without mesh implants for pelvic prolapse. Vanderbilt, Dept. of OB-GYN, reported no difference in results, and therefore is very cautious in recommending mesh implants. Severe complications with the mesh implant can occur (scar, pain on intercourse, continuous pain, bleeding, mesh extrusion, bladder and

rectal problems). Using the patient's own tissue is just as successful, with this study.

This completes the October report. Thanks for reading. Next month we will return to discussion of complications of type 2 diabetes—kidney disease. We will continue on the spine, and sleep disorders. There will be numerous short subjects that deserve attention. Enjoy football, the leaves, and cool weather. Stay healthy and well, my friends. Dr. Sam

