



# Kansas HOSA State Officer Team STAYS BUSY



*By Megan Nance, Kansas HOSA Chaplain, Pittsburg High School*

This year, the Kansas HOSA Fall Leadership Conference was held at Wichita State University in Wichita, KS on October 13, 2006. During the conference, round table presentations on various health-related education programs were presented by the Wichita State University College of Health Professions, WSU Undergraduate Admissions, WSU College of Education, WSU School of Liberal Arts and Sciences, and Wichita Area Technical College. Topics included the physician assistant program, dental hygiene, communication science and disorders, speech-language/audiology, health service management and community development, medical technology, nursing, physical therapy, pre-medicine, and athletic training. Paul Jackson, M.S., of Wichita Area Technical College, presented "Patient Education-Communication Skills for Health Care Workers." He taught us how to communicate with patients in the most effective way. One of the highlights of this conference was the election and installation of the 2006-2007 Kansas HOSA State Officers.

The first duty assigned to the State Officer team was to attend a Joint CTSO Officer Training Workshop at the Best Western Hotel in Emporia, KS. Joining us in the training were State Officers from TSA (Technology Students Association) and BPA (Business Professionals of America). Bryan Fiese was the facilitator during our two days of training. Throughout this event, we got to know our fellow officers and develop our leadership and communication skills. During one activity, about half of our state officers were hypnotized.

In January, 2007, our Kansas State Officer team attended the Joint CTSO Citizenship Day, held in our state capital, Topeka. A speaker discussed different ways to talk with our senators and representatives about our student organization. We then met and ate lunch with members of the Kansas Board of Education, as well as employees of the Kansas Department of Education, Kansas Board of Regents, and Washburn University School of Applied Studies, and advisors and state officers from all eight CTSOs. Jessica Leon, the Kansas HOSA Vice-President, represented Kansas HOSA by giving a five-minute speech before the group during the luncheon. In addition, Lateece Griffin, Kansas HOSA Historian, visited and represented Kansas HOSA at the Kansas Board of Education meeting during the morning of the event. Next, we toured the capital building and had the opportunity to make appointments with our local legislators to talk about Kansas HOSA. This event improved our speaking skills greatly and taught us the proper and most effective way to share our information.



This has been my first year as a member of HOSA, and I have already learned so much. I have developed leadership, teamwork, and communication skills; I've become very close to students from many different places; I've gotten to see different towns and schools; and I have been able to observe some of the different careers the medical field has to offer. HOSA is an amazing opportunity, and I have no doubt it will help me in my future as I pursue a career in the medical field.

**Kansas HOSA State Officer Team attends Joint CTSO Officer Training – pictured from left to right: Lateece Griffin, Historian; Megan Nance, Chaplain; Jessica Leon, Vice-President; Jerry Carmona, Sentinel; Emily Vanderford, President; Miles Crowley,Parliamentarian; Tiffany Farrow, Secretary; Bryan Fiese, Facilitator for CTSO Joint Officer Training; and Brittany Green, Treasurer. Not pictured: Shyanne Sutton, Reporter.**



# Florida HOSA

**S**alutations National HOSA. My name is Jude Alcide and I am currently the Southern Vice President, Postsecondary for Florida HOSA. I am in the last semester in the Physical Therapist Assistant program at Indian River Community College and ready to start at the University of Florida this May to major in Athletic Training.

At this time, the Florida HOSA state team is preparing for the State Leadership Conference set for April 12<sup>th</sup>-15<sup>th</sup>. All regional conferences have been held and the winners chosen. The Florida HOSA state team is hard at work planning to pull off a remarkable conference.

Prior to being elected as a Florida State officer, my mission was to bring HOSA to the forefront to health professionals and more postsecondary programs.

The weekend of February 2<sup>nd</sup>-3<sup>rd</sup> 2007, I attended the Florida Physical Therapy Association-FPTA (Florida Association under the American Physical Therapy Association-APTA) Student Conclave at the University of Florida in Gainesville, where student physical therapists (SPT's)/ student physical therapist assistants (SPTA's) networked among each other. In conversation with the other SPT's/ SPTA's I found that there wasn't enough education on HOSA at the postsecondary level. Currently I am communicating with the students at the University of Florida to further inform them on HOSA issues. The students at the University of Florida are very open-minded and look forward to knowing more about HOSA.

*I can speak for Florida HOSA when I say that there is a great amount of excitement with the National Leadership Conference coming to Orlando, Florida. We anticipate participating at the conference and we're positive that it is going to be one of the greatest health care experiences ever. See you in June!*



# East Haven Principal Lends Unique Support For Medical Reading

When East Haven Connecticut HOSA Advisor Nancy Tipping first convinced a team of three students to compete in the Medical Reading Event, she wasn't sure how to keep the students focused and enthusiastic throughout the reading of the five required books. When she confided her concerns to Vanessa Reale, East Haven High's principal, she got a big surprise. Mrs. Reale immediately came up with the idea of discussing the books over lunch, and she volunteered to treat the students and also excuse them from class for 3 discussion sessions leading up to the State Leadership Conference. The students chose to have pizza, subs, and Chinese food with their discussions. Mrs. Reale also offered a substitute to Mrs. Tipping so she would be free to attend the group discussions.

At the first "Book Discussion Lunch", they discussed "Germ Freaks" and "The Pact". The questions used to stimulate discussion were the result of a meeting between the HOSA Advisor and the school Reading Specialist who was also enlisted to help. This was a very productive lunch not only in assisting students to analyze the books but also in maintaining their enthusiasm.

In February they will discuss "The First Woman Doctor" and "The Cruellest Miles", and in March "Baby ER".

As a result of these efforts, the students are feeling upbeat and proud of their reading accomplishments and other students are interested in this event. This has been the first full year of HOSA at East Haven High School and next year, the plan is to send two Medical Reading Teams to the State Leadership Conference.



# Quitman, Arkansas HOSA members are fighting for AUTISM SPEAKS!

Twenty-six HOSA members from Quitman High School have come up with new strategies to raise money for Autism research. We've taken our yearly coin war and created incentives for students to support our cause. HOSA members designed and created "Sticker Cards", small medicine bottles, and zipper bags for every elementary student. Every time an elementary student fills the medicine bottle with coins (it will hold 39 cents in pennies), he/she receives a sticker for his/her sticker card; a 3 x 5 filled zippie bag will earn five stickers. When the sticker card is filled (it has spaces for 20 stickers), the student receives a prize. For each subsequent card, the prize value increases. Also the class that raises the most money per student will receive a movie party in December.

A week before the coin war began, packets were sent home with students containing an informational letter to parents, autism flyers, a medicine bottle and zippie bag. The bottles and bags were decorated with the Autism Speaks logo and contest instructions. The coin war was scheduled for November 1 through November 17, but by October 30, we had raised approximately \$1,400.....AND we hadn't even officially begun.



Quitman, Arkansas HOSA members Stephanie Ingram, Krystal Grove, and Lindi New rest after stuffing 350 packets for elementary students!

HOSA members are also competing for the chance to host the movie party for elementary. First-year members are racing against second-year members to see who can raise the most money by November 17. Our twenty-six HOSA members alone have raised money amounting over \$400 to date.

The contest isn't over, but we've surpassed our \$2,000 goal. If a little chapter with 26 members can raise money amounting to over \$2,000, think how much we could raise on the national level!

Other chapters wanting more information about our coin war can contact us at [hoyts@quitman.k12.ar.us](mailto:hoyts@quitman.k12.ar.us) <<mailto:hoyts@quitman.k12.ar.us>> .



# Helping Fight Cancer

## *One Smile at a Time*

*Written by Montana state officers: Ashton Habel, Luke Dutton, and Brittany LaSalle*

**G**reetings from the Big Sky state! In the state of Montana we have a unique camp offered to cancer patients, as well as their families. This year Montana HOSA has decided to make Camp Mak-A-Dream our state community service project. Camp Mak-A-Dream offers a variety of activities including swimming, ropes course, archery, outdoor games, hiking, fishing, crafts, and group cabin chat plus much, much more. This allows for the patients to just be kids, while, at the same time providing the needed medical facilities to administer appropriate medical care in a safe and comforting environment. Camp Mak-A-Dream also hosts retreats for adults with cancer each fall - the Ovarian Cancer Survivor's Retreat in September and the Women's Cancer Retreat in October. These four and five day retreats give participants the chance to relax, learn new things, share their stories and meet new friends who share a similar life experience. Camp Mak-A-Dream recruits over 100 volunteers and hires a limited number of paid, seasonal staff each summer. All applicants go through an extensive application and interview process to ensure the safety and care of the campers and participants.



We have challenged each chapter to sponsor at least one child. They have taken on this challenge through a variety of ways which include: selling concessions for sporting events, car washes, raffles, personal donations, along with many other unique fundraisers. If you have any questions or would like to support

our cause you can either contact us at [RHarris3@mt.gov](mailto:RHarris3@mt.gov) or go to the Camp Mak-A-Dream web site at [www.campdream.org](http://www.campdream.org).





# Speech-Language Pathologist

A lawyer giving a passionate closing argument in a trial, an opera singer hitting a “high C,” and a student presenting a history project—what do these people have in common? All of them rely on having strong voices and confident speech. Keeping this in mind, imagine the difficulties faced by someone born with a cleft lip or a stuttering problem. These are the people a speech-language pathologist helps.

It is the role of the speech-language pathologist, or speech therapist, to diagnose, assess, and treat disorders (physical or mental) resulting in communication or swallowing difficulties. The therapist works with patients of all ages, and the disorders to be treated vary from age to age. He might work with a baby who has difficulty feeding, a dyslexic elementary school student who has trouble reading or an elderly stroke victim. All of these people could potentially be brought to a speech therapist. Other potential patients include people with hearing impairment, trauma victims, or patients with Parkinson’s disease.

Speech-language pathology is also important in the treatment of autistic patients. People with autism frequently suffer from undeveloped communication skills, which can make it hard for them to integrate into society. The speech therapist can assist these patients with increasing their ability to express themselves in an effective way.



In order to become a speech-language pathologist, you must obtain at least a Master’s Degree, become licensed in the state you will be practicing and pass a national evaluation test offered by the Praxis Series of the Educational Testing Service. Many states also require you to attend an accredited graduate program in speech-language pathology.

A large number of speech therapists are employed by educational services, especially preschools and elementary schools, because the earlier a speech-language disorder is discovered, the easier it is to correct the problem and ensure proper development. Therapists are also employed by hospitals, private practitioners, nursing care providers, home health services, day care centers, and outpatient departments. A growing number are beginning to work in correctional facilities and youth detention centers.



Effective speech and language is a virtual necessity in today’s society, and its lack can be very detrimental. This is why the speech-language pathologist is such a critical health care profession for those people who suffer from the large number of speech-related disorders.



# ARC Lights the Way for Autism

Lateece Griffin, Kansas HOSA Historian, Wichita West High School



This year's National Service Project for HOSA is Autism Speaks. Autism, which affects 1 in 166 individuals, is a developmental disorder that impairs social skills. The disorder, which can be mild or very severe, makes it difficult for a person to communicate and relate to others. It is also associated with repetitive behaviors and the need to follow strict routines. Autism is the nation's fastest-growing developmental disability but receives less than 5% of the research funding for less widespread childhood disorders.



The ARC Light of Sedgwick County, located in Wichita, Kansas, is a non-profit organization that provides services and support for individuals with developmental disorders (autism, Down syndrome, epilepsy, mental retardation, cerebral palsy) and their families. The ARC (formerly the Association of Retarded Citizens) provides services including Youth Education & Summer Socialization Program (Y.E.S.S.), a ten-week summer program for children with developmental disorders, and various education presentations to create awareness of developmental diseases. The ARC is funded by United Way of the Plains, Sedgwick County, and donations from the community.

A popular fundraiser held annually is the "Lights on St. Paul." The ARC creates a Christmas lights display consisting of over 700,000 lights and more than 100 displays spanning three blocks to benefit their programs. It's free to the community, but donations are greatly appreciated. One cold winter night in December, 2006, the HOSA chapter of Wichita West High School volunteered to help collect donations from the dozens of cars filled with families driving through the three block exhibition

At this time, there is no way to detect autism and there is no cure. More research funding and community awareness to the prevalence of autism is needed to lead to a cure. For more information visit [www.autismspeaks.org](http://www.autismspeaks.org) and [www.arc-sedgwickcounty.org](http://www.arc-sedgwickcounty.org).





# Migraine Headache

## WHAT IS A MIGRAINE HEADACHE?

More than 28 million Americans — three times more women than men — suffer from migraine headaches, a type of headache that's often severe. A migraine headache is a severe pain felt on one, and sometimes, both sides of the head. The pain is mostly in the front around the temples or behind one eye or ear. Besides pain, you may have nausea and vomiting, and be very sensitive to light and sound. Migraine can occur any time of the day, though it often starts in the morning. The pain can last a few hours or up to one or two days.

The cause of migraine headaches is unclear, but there are commonalities in people who have them.

- **Most often, migraine affects people between the ages of 15 and 55.**
- **Many people have a family history of migraine.**
- **They are more common in women.**
- **Migraine often becomes less severe and frequent with age.**

## WHAT CAUSES MIGRAINE?

Although much about headaches still isn't understood, some researchers think migraines may be caused by functional changes in the trigeminal nerve system, a major pain pathway in your nervous system, and by imbalances in brain chemicals, including serotonin, which regulates pain messages going through this pathway.

During a headache, serotonin levels drop. Researchers believe this causes the trigeminal nerve to release substances called neuropeptides, which travel to your brain's outer covering. There they cause blood vessels to become dilated and inflamed. The result is headache pain.

Because levels of magnesium, a mineral involved in nerve cell function, also drop right before or during a migraine headache, it's possible that low amounts of magnesium may cause nerve cells in the brain to misfire.

### Migraine headache triggers

Whatever the exact mechanism of headaches, a number of things may trigger them. Common migraine headache triggers include:

- **Hormonal changes.** Although the exact relationship between hormones and headaches isn't clear, fluctuations in estrogen and progesterone seem to trigger headaches in many women with migraine headaches. Women with a history of migraines often have reported headaches immediately before or during their periods. Others report more migraines during pregnancy or menopause. Hormonal medications, such

as contraceptives and hormone replacement therapy, also may worsen migraines.

- **Foods.** Certain foods appear to trigger headaches in some people. Common offenders include alcohol, especially beer and red wine; aged cheeses; chocolate; fermented, pickled or marinated foods; aspartame; caffeine; monosodium glutamate — a key ingredient in some Asian foods; certain seasonings; and many canned and processed foods. Skipping meals or fasting also can trigger migraines.
- **Stress.** A period of hard work followed by relaxation may lead to a weekend migraine headache. Stress at work, home, or school also can instigate migraines.
- **Sensory stimulus.** Bright lights and sun glare can produce head pain. So can unusual smells — including pleasant scents, such as perfume and flowers, and unpleasant odors, such as paint thinner and secondhand smoke.
- **Physical factors.** Intense physical exertion, including sexual activity, may provoke migraines. Changes in sleep patterns — including too much or too little sleep — also can initiate a migraine headache.
- **Changes in the environment.** A change of weather, season, altitude level, barometric pressure or time zone can prompt a migraine headache.
- **Medications.** Certain medications can aggravate migraines

## ARE THERE DIFFERENT KINDS OF MIGRAINE?

Yes, there are many forms of migraine headache. But, the two forms seen most often are classic and common migraine.

**Classic migraine:** With a classic migraine, a person has these visual symptoms (also called an "aura") 10 to 30 minutes before an attack:

- **sees flashing lights or zigzag lines**
- **has blind spots or loses vision for a short time**

The aura can include seeing or hearing strange things. It can even disturb the senses of smell, taste, or touch. Women have this form of migraine less often than men.

**Common migraine:** With a common migraine, a person does not have an aura, but does have the other migraine symptoms, such as nausea and vomiting.



## WHEN SHOULD YOU SEEK HELP FOR HEADACHES?

Nearly half of the people in the United States who have migraine do not get diagnosed and treated. The National Headache Foundation (<http://www.headaches.org>) suggests talking to the doctor about headaches if:

- **you have several headaches per month and each lasts for several hours or days**
- **your headaches disrupt your home, work, or school life**
- **you have nausea, vomiting, vision, or other sensory problems**

## WHAT TESTS ARE USED TO DETERMINE IF ONE HAS A MIGRAINE?

If you think you get migraine headaches, talk with your doctor. Before the appointment, write down:

1. **Frequency of headaches**
2. **Pain location**
3. **Length of headaches**
4. **When the headaches happen, such as during your menstrual cycle**
5. **Other symptoms, such as nausea or blind spots**
6. **Any family history of migraine**

The doctor may also do an exam and ask more questions about health history. This could include past head injury, sinus or dental problems, or medicine use. By just talking with the doctor, enough information may be obtained to diagnose migraine.

Vision tests, a computerized tomography (CT) head scan or magnetic resonance imaging (MRI) — a diagnostic imaging procedure that combines a strong magnetic field, radio waves and computer technology to produce clear images of your internal organs, including your brain may be used in the screening.

## CAN STRESS REALLY CAUSE MIGRAINES?

Stress is the most common trigger of headache. Studies have found that it is the day-to-day stresses, not these major life changes, that are most linked to headaches. Learning to make time for you and finding healthy ways to deal with stress are important. Some things you can do to help prevent or reduce stress include:

- **eating a healthy diet**
- **being active (at least 30 minutes most days of the week is best)**
- **doing relaxation exercises**
- **getting enough sleep**

It may be helpful to pinpoint which factors in life cause stress. Avoid some of these stresses. For other stresses that can't be controlled, try to think of ways ahead of time to help cope with them.

## HOW ARE MIGRAINES TREATED?

Even though migraine has no cure, work with the doctor to develop a treatment plan that meets the patient's needs. The plan should include ways to treat the headache symptoms when they happen, as well as ways to help make the headaches less frequent or severe. It may include all or some of these methods.

**Lifestyle changes:** Finding and avoiding things that cause headache is one way to reduce how often attacks happen and how painful they are. Diet, the amount of stress in life, and other lifestyle habits may add to getting migraines. Eating a healthy diet, avoiding smoking, and reducing alcohol intake may help improve your headaches. Learn stress reduction techniques and find other positive ways to cope with stress. Try to get on a regular sleep pattern.

**Medicine:** There are two ways to approach the treatment of migraine headache with drugs: prevent the attacks, or relieve the symptoms during the attacks. Many people with migraine use both forms of treatment. Some medicines used to help prevent attacks include drugs that were designed to treat epilepsy and depression. To relieve symptoms during attacks, your doctor may start by telling you to take over-the-counter drugs such as aspirin, acetaminophen, or NSAIDs (non-steroidal anti-inflammatory drugs) like ibuprofen. If these drugs don't work to give relief, the doctor can prescribe types of drugs called ergotamines or triptans. Ergotamines narrow the blood vessels, which helps the migraine's throbbing pain. Triptans are new types of drugs that relieve pain by both narrowing blood vessels and balancing the chemicals in the brain. Hormone therapy may help some women whose migraines seem to be linked to their menstrual cycle.

**Alternative methods:** Biofeedback has been shown to help some people with migraine. It involves learning to control how your body reacts to stress to reduce its effects. Other methods, such as acupuncture and relaxation, may help relieve stress. Counseling can also help if you think your migraines may be related to depression or anxiety.

### For More Information:

**American Council for Headache Education (ACHE)**  
Phone: (856) 423-0258  
Internet Address: <http://www.achenet.org>

**Migraine Awareness Group: A National Understanding For Migraineurs (MAGNUM)**  
Phone Number: (703) 739-9384  
Internet Address: <http://www.migraines.org>



# Emphysema

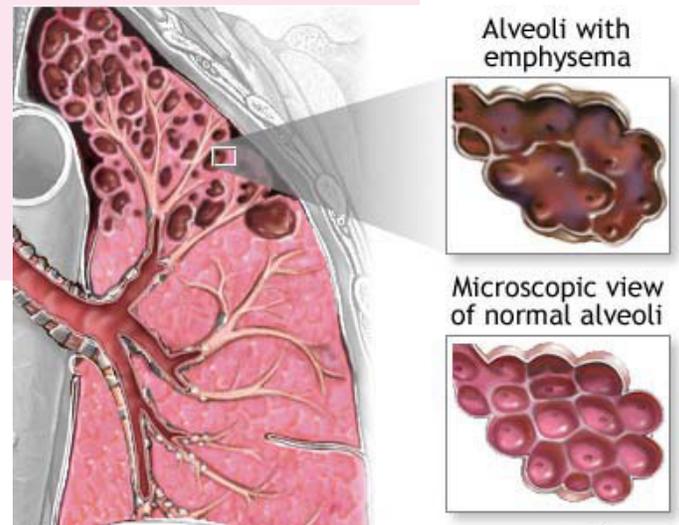
Emphysema is a disease of abnormal and permanent enlargement of the air spaces distal to the terminal non-respiratory bronchioles, accompanied by destructive changes of the alveolar walls. The disturbance of lung function results in loss of elastic recoil, airways to collapse on exhalation, and chronic airflow obstruction. Most individuals are diagnosed with emphysema after several pulmonary function tests.

There are four main types of emphysema. Panacinar emphysema is when all alveoli within the acinus are affected to the same degree. This type is seen in emphysema associated with alpha1-antitrypsin deficiency and unilateral hyperlucent lung syndrome. In centriacinar emphysema, alveoli arising from the respiratory bronchiole or the proximal portion of the acinus are most affected. In paraseptal emphysema the enlarged air spaces are located at the periphery of the acinus. Lastly there is irregular emphysema which forms in the vicinity of scars.

Cigarette smoking is the most important etiologic factor in the development of both emphysema and chronic bronchitis. Emphysema is rare in those who've never smoked. Other factors may include that of environmental air pollutions and hereditary deficiency of alpha1-antitrypsin.

Patients with emphysema usually present with shortness of breath and scant sputum production. They may have barrel-shaped chests and use pursed-lip breathing even at rest. Shoulders are frequently rounded because of shortening of the pectoral muscles. The typical type A COPD patient, one with a predominately emphysematous component, is called a "pink puffer".

Medical treatment may include most importantly cessation of smoking and prevention of respiratory infections. Also, prophylactic immunizations against influenza and pneumonia are recommended. Emphysema can last up to 20 to 40 years of life in the absence of airway obstruction. Prognosis for the patient with emphysema is better than that of someone with chronic bronchitis.





# Music Therapy in Healthcare

Shelley Stoker, Music Therapist

“If we consider our human biology in terms of musical form rather than mechanical construction and our response to biological challenges as a repertoire of improvisations, we may find that disease restricts our ability to improvise new solutions to challenges—in musical terms, restricts our ability to play improvised music” (Aldridge, 1993). Music therapy is swiftly becoming a major component to the healthcare field. Music therapists have the ability to work in a variety of settings from a neonatal intensive care unit to geriatric facilities to psychiatric wards and everywhere in between.

“Music Therapy is the clinical and evidence-based use of music interventions to accomplish individualized goals within a therapeutic relationship by a credentialed professional who has completed an approved music therapy program” (American Music Therapy Association definition, 2005).

Music therapy is a research-based practice that provides the healthcare industry with research that is both qualitative and quantitative. The use of music in the medical setting dates back to the writings of Aristotle and Plato. Music therapy began being noted in the healthcare field during World War I and World War II as music therapists began working with veterans. The emotional and physical benefits that veterans experienced led to physicians beginning to hire music therapists as a part of the medical team.

Today more and more hospitals are beginning to hire music therapists to approach many different issues of their patients. “Music is used in general hospitals to: alleviate pain in conjunction with anesthesia or pain medication; elevate patients’ mood and counteract depression; promote movement for physical rehabilitation; calm or sedate, often to induce sleep; counteract apprehension or fear; and lessen muscle tension for the purpose of relaxation, including the autonomic nervous system” (www.musictherapy.org, 2007).

*Music therapy can address a patient’s fear, anxiety, pain, rehabilitation issues, and much more. As the world watches the field of music therapy grow, the healthcare industry will be a big part of that growth.*

The education to becoming a music therapist involves a myriad of training. A music therapist must obtain a bachelors degree from a school with an approved music therapy program. While taking courses a music therapist must take many classes in music, psychology, biology, human development, and many more. After completing the coursework, a music therapist then must complete a six-month internship at an approved internship site. After completing all the educational requirements, the music therapy candidate is then eligible to sit for the music therapy boards administered by the Certification Board for Music Therapists. There are also masters and PhD programs in music therapy.

*For more information on music therapy go to: [www.musictherapy.org](http://www.musictherapy.org)*

#### References

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<http://www.musictherapy.org>.

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# Physicians Assistant

*By Landon Stoker  
Region I Vice President*

A Physicians Assistant, commonly known as PA, is a relatively new and growing field in the world of medicine. A PA is a highly trained medical profession that performs a lot of the same procedures that are done by the physicians. One difference between a physician and a PA are that they are always required to be under the supervision of a physician. It can be related to a tech of some kind working under the nurse in that specialty.



In 1965 the PA profession started at Duke University. The program only consisted of four military corpsman within the PA ranks. It is has now grown to over 130 PA programs nationwide and with over 42,000 practicing physician assistants.

The schooling in becoming a PA is considerably shorter than that of a physician. In general, most PA programs are a two year program, past the undergraduate degree. The schooling also includes classes consisting of lectures and also hands on experience within diverse specialties within the healthcare field. The pre-requisites for this program include biology, PD biology, and microbiology, English, humanities, general chemistry, organic chemistry, some classes of college math, and psychology.

Many PA programs offer a way to take night classes for those that are trying to change their choice of careers. Comparative to that of a medical student, PA students go through schooling and then clinical experience after. The schooling of a PA is compared to the first and third years of a medical student. PA programs consist of nine to twelve months of classroom education, and then twelve to fifteen months of clinical experience after that.

A PA's base pay starts off at \$71,000 annually. Many PA's are allowed the opportunity to choose their hours. The outlook for a PA is really good. For every graduating PA there are 7.5 jobs for them. It is also projected to be increasing by 53%. Choosing the career of a physicians assistant is another alternative for those looking to be part of the medical field, but do not want to complete the years of medical school.

Information provided by: Health Provisions Advisement Center in Provo, Utah  
Web Site: [//healthpro.byu.edu](http://healthpro.byu.edu)

Picture from web site: American Academy of Physicians Assistants



# Stress

**By definition, stress is a state of mental or emotional strain or suspense.**

## **What causes stress?**

Stress is very common and may be brought on by a situation, mental state, or the actions of others.

## **What are the signs and symptoms of stress?**

To name only a few...

- Problems with memory
- Confusion
- Poor judgment
- Repetitive of continual thoughts
- Fatigue
- Hair loss
- Weight gain or loss
- High blood pressure
- Chest pain, irregular heartbeat

## **How do you manage stress?**

*The most important thing to remember when you are under stress is to breath. Taking deep breaths can put you at ease and allow you to deal with with the situation at hand.*

You can also...

- *Exercise regularly*
- *Get enough sleep*
- *Maintain a balanced diet*
- *Talk to others about your feelings*
- *Reduce caffeine and sugar*

*You can even take up yoga!*



# Diabetic Neuropathy

Diabetic Neuropathy is a peripheral nerve disorder caused by diabetes. Diabetic Neuropathy symptoms are the following numbness, pain, or tingling in the feet, or legs. Symptoms may go unnoticed for a long time, and flare up suddenly and affect specific nerves so that an affected individual will develop double vision or dropping eyelids or weakness of muscles. The main focus in treating Diabetic Neuropathy is to relieve discomfort and prevent future tissue damage. Part of the treatment is controlling blood sugar levels by diet and medication. It is usually helpful to patient to walk, take warm baths, or using elastic stockings to relieve leg pain. There is research being done by the NINDS.



# ...the stealth health care workforce crisis

**T**he nursing workforce crisis dominates the imagination of both institutional leaders and policymakers in health professional education and service delivery. The well-documented projected shortfall of over 800,000 nurses by the year 2020 focuses the mind of many and has brought real attention to the chasm of care that too few health professionals will breed. But, as dramatic as this situation will be, it pales in comparison to similarly driven shortfalls in other health professional groups. And, as important as shortages in pharmacy, medicine, and even dentistry might become, they will also fail to reach the depths of the **looming crisis in the allied health professions.**

**More than twice the size of nursing, the over 200 allied health professions** together represent the other core of the health care workforce that not only run the machines of our high-tech health care system, but also provide much of the face-to-face care and specialized services that make the health system work. These health professionals range from entry-level positions which require short training periods and relatively low wage rates to some doctorate prepared professionals who can generate private practice incomes that rival physicians.

The shortage of workers in the allied health professions is driven by many of the same dynamics that are shaping the nursing shortfall:

- aging workforce,
- increased demand for care and services,
- greater opportunities for women,
- a shrinking or inadequate number of educational programs, and
- faculty shortages

But, unlike nursing, workforce issues in the allied health professions remain hidden because they are understood in the context of one professional group

at a time, not as a crisis for an entire professional community. In practice settings such segmentation is in some ways even more treacherous for care delivery organizations than the one presented by nursing. Because the numbers of radiological technicians or clinical laboratory scientists are so small when compared to the overall number of nurses employed, they might be missed as a critical area for concern. But, in such small service lines three or four retirements, or a decision to move to higher paying jobs as a group, can mean severely limiting or perhaps even temporarily shutting down the services provided by the laboratory.

Allied health varies from nursing in some other ways as well. Because allied health programs are more likely to be located in public education settings and, like most health professional educational programs, are expensive to operate, they are susceptible to budget shortfalls at the state or institutional level. This has put pressure on allied health programs; when issues arise it may be easier to close these programs than their nursing counterparts. Nearly 25 hospital-based medical technologist programs closed each year from 1995 to 1997. Our largest state, California, has only 9 programs and about 50 graduates per year to fill hundreds of job openings. Because graduates make lower salaries than many other health professionals it is not as feasible to supplement the educational budgets by charging higher tuitions or moving entire programs to private institutions.

One flip side of this development is that the growing shortage of workers in these critical areas represents much, if not most, of the employment opportunity for entry-level workers over the next few years.

**According to the U.S. Department of Labor's Bureau of Labor Statistics listing in 2004, of the 30 fastest growing occupations in the entire labor market, about half are jobs in the allied health fields (iv). As the population ages and demands more care, while more allied workers retire, the level of the opportunity will only rise, as will salaries.**





There are several things now underway that will begin to address the issue. The Allied Health Reinvestment Act is making its way through Congress and merits the attention and support of the care delivery community, particularly the leadership of the hospital community.

It provides much needed funds to support and hopefully enlarge these programs. Just as essential, it brings needed attention to the issue.

The proprietary educational sector has begun to recognize the growing need in this area. They see allied professions as more attractive for entry than nursing because of lower entry barriers and a shorter training time for entry-level positions. Many of these providers have developed significant distance learning or e-learning platforms that will be attractive to students and employing institutions alike as sponsors of such efforts.

New or rediscovered arrangements in traditional educational offerings are also cropping up. Hospitals in some regions are beginning to see the availability of an adequate workforce as a public good, not just a competitive advantage. In turn, they are exploring much deeper engagement with education, an engagement that goes beyond short-term financial support. Collectively and individual, hospitals are once again reconsidering owning the capacity to educate and grant degrees internally. This not only gives them ready access to graduates, but allows for more effective education and clinical practice ladders to emerge. For example, Kaiser Permanente, in partnership SEIU, developed career ladder maps for 60 job classifications in order to encourage career advancement for incumbent workers. Hospital Councils manage to put competitive issues aside in order to strategically address workforce needs that impact all members across the board. **As a part of such innovations deeper integrations into high school vocational educational programs are also being reconsidered.**

There are other things that the professions themselves can do:

- reconsider approaches to multi-skilling,
- improve, streamline or eliminate the current accreditation system of new programs,
- partner strategically with nursing and more completely
- capture the contributions of all of allied health and the cost in terms of expense, patient safety and lost quality.

**Because of its inherent invisibility, allied health is the sleeper workforce crisis. It needs attention now.**



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## Rochester Public Schools, Rochester Community and Technical College and Mayo Clinic Unveil New Health Science Careers Center

In January of 2006, Rochester Public Schools announced a community collaboration with Rochester Community and Technical College (RCTC) and Mayo Clinic to expand the District's Health Science Careers Program (formerly known as the Medical Careers Program). On February 1, 2007, the partners unveiled their new Health Science Careers Center.

The Health Science Careers Center is designed to allow the Health Science Careers Program to expand to meet the needs of students and the growing demand for health-care professionals. The facility boasts 11,000 square feet of state-of-the-art classroom and lab space, which can accommodate 270 students.

*“The nursing lab provides 14 stations, complete with furniture and equipment found in real patient-care settings,”*

“The nursing lab provides 14 stations, complete with furniture and equipment found in real patient-care settings,” says course instructor and registered nurse, Chris Kuhn. “There are even working patient call lights so students can practice watching for the signal and meeting patient needs in a timely manner.”

“All students now have access to wireless-laptop technology to supplement research,” adds instructor and registered nurse, Bonnie Barnett. “And because the facility provides space for presentations to 60 students at a time, we can now have guest speakers from the Mayo Clinic on a regular basis.”

The Health Science Careers Program is a year-long course open to high school juniors and seniors. Appropriate for both pre-college and pre-technical programs, students learn the industry requirements for a number of health-care careers, from doctors, nurses, and first responders to pharmacists, dentists, and veterinary technicians. Students also study human anatomy and physiology and participate in hands-on activities with medical equipment such as hospital beds, blood pressure cuffs, and stethoscopes. This course is a Nursing Assistant State Approved Program that integrates a national student organization called Health Occupations Students of America (HOSA) into the classroom learning.

The Health Science Careers Program allows students to earn credits toward both high school graduation requirements and college. RCTC provides articulation agreements for students to earn college credits that apply to RCTC programs.

The District has offered the Health Science Careers Program for more than 20 years. In the fall of 2003-04, RCTC generously made classroom space available and the program was moved to the Heintz Center. At that time, 61 students were enrolled in the program. Enrollment had nearly tripled by late December 2006, when 167 students moved into the new Health Science Careers Center.

*The Health Science Careers Program is a year-long course open to high school juniors and seniors.*





# HOSA Salutes Alumnus

## Michael Gooch, RN, BSN, CEN, EMTP



**Michael Gooch**, newly-elected Secretary to the HOSA, Inc. Board of Directors, represents HOSA on many levels since 1993. Michael's story shares how HOSA really makes a difference!

Michael, a 1995 Giles County High School graduate, is a flight nurse for Vanderbilt Medical Center's Life Flight program. At roughly 2,000 flights per year caring for critically injured patients, Michael's job is high pressure and fast paced—definitely

not for the meek, weak or energy-challenged. Michael also works part-time at two additional high stress jobs as an emergency department nurse at Southern Hills Medical Center and an EMT paramedic at Williamson Medical Center.

After hours, Michael continues to pour himself into the service of health care. He teaches continuing education for nursing and paramedic students. He speaks to middle and high school students about health career opportunities, coaches HOSA members preparing for state and local competitions, and is in demand as a judge for the competitions. He is an advisor for a medical explorer post and a volunteer firefighter for the Pulaski Fire Department.

Michael was introduced to the health field through scouting. An Eagle Scout, he joined a medical exploring post in high school, where he was allowed to shadow paramedics on Giles County ambulance runs. (Current regulations no longer allow this practice.) His sophomore year, Michael began taking health sciences courses and joined HOSA. For the next three years, Michael served in state and local HOSA leadership positions. Michael's HOSA Bowl team placed first statewide and among the top ten national teams for two consecutive years. (HOSA Bowl tests individual and team knowledge about health science education, health occupations, HOSA and parliamentary procedures in sequential rounds of elimination.)

Although Michael's initial interest was in practicing medicine, he shifted his focus when exposed to the wide range of duties and practice opportunities in nursing. As a high school sophomore, he observed both an emergency nurse and physician at a HOSA job shadowing day sponsored by Hillside Hospital. Michael was intrigued by the autonomy and range of duties in emergency nursing, and impressed by nursing's fast track educational options. He then set out on a career ladder that secured his dream job of flight nursing within six years of high school graduation. Each rung brought him employment that financed and facilitated his next goal. Michael's progression included:

- Certified Nurse Technician (now CNA), obtained his junior year through the health sciences curriculum (1994).
- First job while still in high school: nurse assistant at an NHC healthcare facility (1994-1997).
- Associate Degree of Nursing (1997) and EMT Paramedic (1999) at Columbia State Community College.
- BSN at Middle Tennessee State University (2001).
- First nursing position in emergency department at Hillside Hospital (1997-1999).
- Emergency nurse at Southern Hills Medical Center (1999 - present).
- Flight nurse appointment at Vanderbilt University Medical Center (2001 - present).

Michael loves his work. "Flight nursing is very skill-oriented, very technical," he said. "It is protocol-driven. I do surgical procedures that only doctors could do 10-15 years ago." He enthusiastically promotes the benefits of nursing to young men at Oakland and Richland High Schools, where he works with HOSA advisors. "There are so many options," he continued. "Nurses can go into informatics, anesthesia, pharmaceuticals, education or be a nurse legalist . . . After three years of nursing, you can be a travel nurse and go anywhere." For a young single with no family responsibilities, Michael said the money is good and the opportunities are boundless.

What is next for Michael? Probably an MSN, he said. Vanderbilt University Medical Center has tuition programs and advanced clinical positions that will enable him to realize his next goal.

Michael was named Outstanding HOSA Alumnus of the Year at the June 2003 National Leadership Conference in Atlanta, a well-deserved honor. Michael is an outstanding role model for HOSA, nursing and health careers in general.

Michael's story is energizing and uplifting. It is even more exciting to contemplate how many more stories like Michael's are out there—or could be. What can we do to nurture these budding healthcare heroes?

First, we can search local schools and career prep organizations – even our own employee ranks—for outstanding individuals like Michael Gooch who are envisioning their futures. We can provide career information, clinical and shadowing experiences, mentoring and tuition assistance. We can provide them jobs with schedules that accommodate their academic responsibilities. We can nurture them, celebrating their mileposts and achievements. We can tend them as part of healthcare's garden. "We must tend them as part of healthcare's garden, or risk losing them to another career choice."

# Guess Who's Coming to Dinner

**Audience:** This icebreaker can be used with a group of HOSA members who already know each other or who are just getting acquainted.

**Materials:** Name tent, 1 per participant (or use a large index card)  
Markers

**Number of  
Participants:** Unlimited

**Purpose:** Getting to know each other, learning more about each other

**Time:** 5 – 30 minutes, depending on the size of the group

1. Hand out materials, 1 name tent or large index card per participant.
2. Tell the group that you are playing a game titled “Guess Who’s Coming to Dinner.”
3. Each person gets to invite one person to dinner. This can be any living person in the world.
4. Explain that he/she will have one hour to dine and talk with this person. “The only “magic” we can do is bringing the person of their choice to dinner. The location is a quiet dining room, just you and the person you choose.”
5. Give the group 2 – 5 minutes of “think time” to think carefully about whom they would invite. At the end of the time limit, each person should write his/her invited dinner guest’s name on the name tent.
6. One at a time, have participants reveal their choice and explain why they chose this person.
7. Debriefing is optional. It may be interesting to look at the category of dinner guest that was invited. Was it someone famous? Was it someone the participant knows? Was there a specific reason for inviting the chosen guest, such a desire to influence that person?
8. Conclusion – Thank participants for sharing.



## LEADERSHIP ATTRIBUTES:

# Learning from the Greats

*James Cartwright  
Region II Vice President*

**A**s a leader, people will always tell you to “blaze your own trail”, which is good advice, but don’t let it get to your head. The world’s most successful leaders gathered much from their precursors. Dr. Martin Luther King, Jr. adopted the nonviolent civil disobedience that Mahatma Gandhi used during the Indian Independence Movement for the purposes of the American Civil Rights Movement. Another excellent example of leaders learning from their predecessors is that of Alexander the Great. One of the greatest military minds in history, he was tutored by none other than Aristotle, a leader in thought and an innovator in his own right. For much of Alexander’s life, he looked to Aristotle for counsel and guidance.

**“blaze your own trail”**

**“if we do not learn history,  
we are doomed to repeat it”**

In learning from other leaders, it is important to not only know their successes but their mistakes as well. As many a history teacher would tell you, “If we do not learn history, we are doomed to repeat it”. That is why it so critical to read not only the works of the outstanding individuals, but also their biographies.

One can come to know a great deal about an individual simply by sharing in their experiences through the written word. Remember not to limit yourself to books, however. Absorb as much information from as many sources as you can, be it through the worldwide web, cinema, television, or whatever means you discover.

In leadership roles in your community, events are bound to occur which will be similar to ones you have been exposed to through study. In these situations, it is paramount that you draw on the actions of historical figures before making a final decision.

Throughout your quest for knowledge, blaze your own trail, but always make use of the paths that were cleared for posterity. If we don’t take full advantage of the examples of earlier periods, then all the works of those before us will be in vain. The past is one of your greatest resources, don’t forget to tap into it.

**The past is one of your  
greatest resources ...**

## MEDICAL RESERVE CORPS SPOTLIGHT

The Health Occupations Students of America (HOSA) is a national student-based nonprofit organization endorsed by the U.S. Department of Education and the Health Science Technology Education Division of the Association for Career and Technical Education (ACTE). HOSA has more than 80,000 members in 2,500 secondary and postsecondary chapters in 44 chartered state associations nationwide. Its mission is to promote career opportunities in the health professions and to enhance the delivery of quality healthcare.

In fact, HOSA is the only student organization addressing the nation's healthcare workforce shortage by promoting career opportunities in the health professions in elementary, middle school and secondary educational institutions. HOSA is committed to building a pipeline through which a continuous flow of qualified students will enroll in Health Science Technology Education programs and participate in HOSA chapters. Since 1976, HOSA has recruited, developed and encouraged more than 1.2 million students to pursue a career in the health professions. The HOSA, Inc. Board Chair, Sandra Parker (MS) stated, "Our goal is to double HOSA membership by 2010 by encouraging our HOSA chapters to provide unique opportunities for HOSA members to seek opportunities for personal and professional growth to enhance their Health Science classroom experiences."

In this post 9/11 and Hurricane Katrina world, HOSA has encouraged its 2,500 chapters to partner with local community-based organizations. There are considerable examples of HOSA members being first responders in emergencies given the healthcare skills developed in Health Science Technology Education programs and the skills developed in leading and participating in student-led HOSA projects and activities. Numerous HOSA members volunteered in their respective communities impacted by hurricanes last year.

"Because of our HOSA members and chapter advisors' strong desire to be an active participant in emergency preparedness in local communities, we believe there could be a synergistic relationship between HOSA and the Medical Reserve Corps resulting in providing trained volunteers to compliment the impressive work by MRC across the country," expressed Dr. Jim Koeninger, Executive Director.

HOSA chapters are active within their communities on a volunteer basis, addressing priority issues of the Surgeon General such as improving health literacy and increasing disease prevention.

For more information, please visit the HOSA Web site at [www.hosa.org](http://www.hosa.org) or email [hosa@hosa.org](mailto:hosa@hosa.org).

***Our goal  
is to double  
HOSA  
membership  
by 2010***





## The Nursing Shortage

### The Nursing Shortage Website

<http://www.nursingshortageinfo.com>

This website includes a few statistics and narrative information on the nursing shortage, and includes topics such as patient care, nurse training, opportunities, temporary nursing, travel nursing, and addressing the shortage.

The site provides a good introductory overview about the nursing shortage but lacks good current statistics and data.

### ANA Nursing World: Reading and Reference Room

<http://www.nursingworld.org/readroom/fsshortage.htm>

This website by the American Nurses Association provides detailed and current information about the nursing workforce shortage. Topics include nursing shortage indicators, contributing factors, effects of the nursing shortage, legislation and strategies, and strategies to reverse the new nursing shortage.

We like the fact that everything is on the same page so that searching is simple. There are a number of links for additional information and web searching.

### Discover Nursing

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

This comprehensive nursing site, sponsored by Johnson & Johnson, is jam-packed with information about the nursing profession. It includes links to nursing statistics, benefits and salaries, nursing education programs, and scholarships. This is the ideal site for future nurses who want to find everything they need to know about nursing. Instructors will want to click on the link to “free materials” to find out what is available for their classrooms.

### American Association of Colleges of Nursing

<http://www.aacn.nche.edu/Media/shortageresource.htm>

The AACN Nursing Shortage Resource page includes detailed information about the nursing faculty shortage, as well as a long list of reports related to the shortages in the nursing profession. It includes an updated Nursing Shortage fact sheet that can be downloaded in PDF format and summarizes the most recent shortage data. It also contains state nursing workforce reports for all 50 states.