NORTHEASTERN PENNSYLVANIA
HEALTH CARE QUALITY UNIT

It's Your Health

Fall 2007

the Advocacy Alliance
Toll Free 1-877-315-6855
www.theadvocacyalliance.org

October is Brain Injury Awareness Month

This is a good time to discuss the incidence, cause, and treatment for brain injury, and some things that can be done to prevent brain injuries. In order to understand the implications of a brain injury, it makes sense to discuss the brain.

It is important to understand the complexity of the human brain. The human brain weighs only three pounds but is estimated to have about 100 billion cells. It is hard to get a handle on a number that large (or connections that small). Let's try to get an understanding of this complexity by comparing it with something humans have created–the entire phone system for the planet. If we took all the phones in the world and all the wires (there are over four billion people on the planet), the number of connections and the trillions of messages per day would not equal the complexity or activity of a single human brain.[1]

Annually, there are 1.5 million people in the U.S. that will sustain a traumatic brain injury (TBI) and 50,000 people will die as a result. There are currently over 5.3 million Americans living with a disability as a result of a TBI. Most of these injuries occur in males between the ages of fifteen and twenty-four, and in people over age 60. The most common causes of brain injuries are falls, motor vehicle accidents, workplace accidents, sports injuries, assaults, and bullet wounds.

Brain Injury is often called an "invisible epidemic" and is a devastating, and costly, health problem. Every 21 seconds a person in the U.S. suffers a TBI, which can leave victims with long-term cognitive impairments that limit their ability to function in normal daily activities. Many of those who become impaired may have difficulty remembering, learning, controlling their temper, living alone, earning a living, and getting from place to place. Traumatic Brain Injuries can range from very severe to mild. The reason the effect of an injury can be so dramatic is related to the way the brain is made and how it works.

Because of the brain we can think, feel, walk, run, jump, play, hear, see, communicate and understand where we are in space and time. All of these activities are controlled by different parts of the brain. Depending on which part of the brain has been injured will depend on what activities the individual will have difficulty with.

What are some of the signs, or symptoms, of a brain injury? A person with a brain injury may have a decreased level of consciousness, nausea, vomiting, unequal pupil size, listlessness, confusion, amnesia, dizziness, partial paralysis, numbness, shock, anxiety, difficulty learning, epilepsy or even death. The signs and symptoms may be subtle, and may not even appear until days or even weeks following the injury. They may even be missed because the person may look fine even though they may act, or feel, differently.

Early diagnosis and medical care is essential. The earlier the diagnosis is made, and treatment is started, the better the outcome. It is valuable for the brain injured individual to have a family member or caregiver who may be able to tell the medical staff what behaviors are normal for this person, and what seems out of the ordinary.

1 Taken from "Traumatic Brain Injury Survival Guide" by Dr. Glen Johnson, Clinical Neuropsychologist, Clinical Director of the Neuro-Recovery Head Injury Program.

Prevention is crucial. Among the elderly, fall prevention programs, driver's education, improved pedestrian safety practices, and suicide prevention programs may help to decrease the rates of head injury.

Many injuries and accidents can be related to high-risk behaviors, especially among younger individuals. These high risk behaviors may include: drinking and driving; the use of violence to resolve disputes; drug or alcohol use at work or during activities (i.e., boating, skiing, or skateboarding); not wearing seat belts; and not wearing a helmet when riding a motorcycle or bicycle. Increasing community awareness regarding the degree of risk inherent in these activities may help to decrease the incidence of accidents and injuries.

October is National Physical Therapy Month

The physical therapist (PT) has a very important role in the evaluation and treatment of the brain-injured individual. The PT will evaluate the strength, range of motion, flexibility, balance, coordination, body mechanics, endurance and general mobility of the individual. They will then develop a treatment program for them that will focus on increasing their level of function in whatever area it is needed. This treatment program will focus on education about the cause of the problem, instruction in exercises to improve function and encourage the participation of the individual, their family and/or caregivers in the treatment plan.

The PT will re-evaluate the treatment plan as needed, and monitor what protocols are working, and which ones may need to be modified. Very often the injured individual responds to the approach of the physical therapist because they are jointly determining the goals and effectiveness of treatment. This approach builds the injured individual's self esteem, increases their motivation, and reinforces their position as the most important person on the treatment team.

Depression and Suicide

More people die from suicide than from homicide each year in the United States. Suicide is a major, preventable public health problem. It was the 11th leading cause of death for all people in the US in 2004, accounting for over 32,000 deaths. It is estimated that between eight and twenty-five suicide attempts occur for each suicide death.

Why do people kill themselves? More than 90% of all suicides are committed by people who suffer from a significant psychiatric illness at the time of their death. Nearly 2/3 of all suicides are committed by someone with a mood disorder. Suicide attempts are most frequently associated with major depression.

In any given year, nearly 10% of the population suffers from a depressive illness. While not all people who suffer from depression attempt suicide, the greatest number of people who attempt suicide are those who suffer from depression. Many people with depression do not seek treatment, even though the vast majority of them can be helped.

Being depressed causes a person to have a narrowed view of their world, and their perception becomes distorted. The negative parts of their life seem to be constantly reinforced, and the positive parts are discounted. Over time, a sense of hopelessness, helplessness and worthless consume the person and it may seem that there is no solution.

Suicide, however, is not a solution to the problem. It is an end before a solution can be found. Most people who attempt suicide do not really wish to be dead, they do wish for their suffering to come to an end. Recognizing the symptoms of depression and the warning signs of suicide is critical in getting help for the person who is suffering.

Warning Signs of Suicide

- Talking about suicide.
- Statements about hopelessness, helplessness or worthlessness.
- Preoccupation with death.
- Loss of interest in things one cares about.
- Giving away prized possessions.
- Making final arrangements.

All warning signs of suicide must be taken seriously. Assure that someone stays with the person, and get him or her to a doctor or psychiatrist immediately. Do not hesitate to contact Emergency Medical Services (911) if you need help with getting help for the person.

For more information, you can go to:

www.nimh.nih.gov/suicideprevention

www.save.org

www.have-a-heart.com/suicide

Symptoms of Major Depression

- **Persistent sad or "empty" feeling.**
- **Feeling hopeless, helpless, worthless, pessimistic or guilty.**
- **Substance abuse.**
- **Fatigue or loss of interest in ordinary activities, including sex.**
- **Disturbances in eating and sleeping patterns.**
- **Irritability, increased crying, anxiety or panic attacks.**
- **Difficulty concentrating or remembering.**
- **Thoughts of suicide, plans or attempts.**
- **Persistent physical symptoms or pains that do not respond to treatment.**

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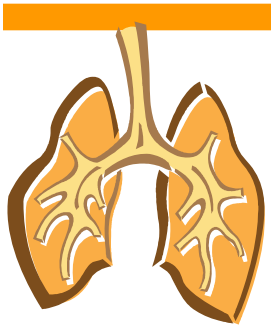
Check out these websites mentioned in this edition of "It's Your Health".

www.nimh.nih.gov/suicideprevention

www.save.org

www.have-a-heart.com/suicide



Pulmonary Rehabilitation

Take a moment to breathe in and breathe out. Was it easy? For people with restrictive lung disease, taking a breath is a laborious act. Pulmonary rehabilitation is an effective way to control symptoms and improve the ability to go about day-to-day activities. It is a multidisciplinary program of care for patients with chronic respiratory impairment that is individually tailored and designed to optimize physical, and social, performance and autonomy.

Educational sessions include:

- Breath retraining
- Role of medications
- Energy conservation
- Proper nutrition
- Dealing with lung disease

Benefits of Pulmonary Rehabilitation include:

- **Controlling and alleviating symptoms.**
- **Increasing exercise tolerance.**
- **Decreasing anxiety and depression commonly associated with pulmonary disease.**
- **Learning more about their disease.**
- **Feeling better about themselves.**

Who does Pulmonary Rehabilitation help?

Chronic Obstructive Pulmonary Disease (COPD)

COPD is a term referring to two lung diseases, chronic bronchitis and emphysema, characterized by obstruction to airflow that interferes with normal breathing. It does not include other obstructive diseases, such as asthma. Smoking is the primary risk factor for COPD. Eighty to ninety percent of COPD deaths are caused by smoking. Other risk factors include air pollution, industrial pollution, second-hand smoke, history of childhood respiratory infections and heredity. Chronic bronchitis is the inflammation, and eventual scarring, of the bronchial tubes. Bronchodilator medications are central to managing the symptoms of COPD.

Asthma

Asthma is a chronic lung disease that affects about 15 million Americans, more than five million of whom are under the age of 18. For a person with asthma, everyday things can trigger an attack. These things include air pollution, allergens, exercise, infections, emotional upset or certain foods. Typical symptoms include coughing, wheezing, tightness in the chest, difficulty breathing, a rapid heart rate and sweating. While asthma itself does not pose a threat to bone health, people with asthma tend to be an increased risk for osteoporosis. Pneumonia and influenza vaccines should be given to COPD patients.

The Connection Between Asthma and Osteoporosis

Osteoporosis

Osteoporosis is a condition in which the bones become less dense and more likely to fracture. Fractures from osteoporosis can result in significant pain and disability. It is a silent disease that can often be prevented. If undetected, it can progress for many years without symptoms until a fracture occurs. Anti-inflammatory medications, or steroids, are commonly prescribed for asthma. When taken by orally, these medications can decrease the calcium absorbed from food, thereby increase calcium lost from the kidneys and decrease bone formation. Asthma sufferers think dairy products trigger attacks, and this is true if the person has a dairy allergy. However, avoiding calcium rich dairy products can be damaging for children with asthma who need calcium to build strong bones. Since exercise often can trigger an asthma attack, many will avoid weight-bearing physical activities that are known to strengthen bones. These exercises include walking, jogging, aerobics and dancing. Osteoporosis, like asthma, is a disease without a cure but there are medications available to prevent and treat osteoporosis.

For people with asthma who have developed, or may develop, steroid induced osteoporosis, Fosamax is one medication that has been approved to treat this condition. Actonel has also been approved to treat and prevent osteoporosis. Because of their effectiveness in controlling asthma with fewer side effects, inhaled steroids are preferable to oral forms for prolonged use. The lowest possible dose, for the shortest period of time, that controls asthma symptoms is recommended.

Exercise to A Healthy Lifestyle

Exercising for strength, flexibility and cardiovascular health is a crucial aspect for successful pulmonary rehabilitation. Like muscle, bone is a living tissue that becomes stronger with exercise. The best kind of activity for your bones is weight-bearing exercise that forces you to work against gravity (i.e., walking, climbing stairs and dancing).

Researchers believe that listening to music helped people with severe respiratory disease to increase their fitness levels by making them feel less hindered by shortness of breath and distracting them from some negative physical symptoms. Using some sort of auditory distraction as a way to encourage exercise seemed to improve their functional performance. People who experience exercise-induced asthma should exercise in an environmentally controlled facility and participate in activities that fall within their limitations.

When necessary, medication is used to assist breathing during exercise. Bronchodilator medications work by relaxing and opening air passages in the lungs. They can be inhaled as aerosol sprays or taken orally. A person's reliance on steroid medication can be reduced by lessening exposure to asthma triggers.

BPH–What does it mean?

BPH stands for Benign Prostatic Hyperplasia, or hypertrophy, also known as lower urinary tract symptoms (LUTS) and previously referred to as Prostatism. In simple terms, it is a non-cancerous enlargement of the prostate gland.

The prostate gland, part of the male reproductive system, is about the size and shape of a walnut and weighs about one ounce. The gland is made of two lobes, or regions enclosed by an outer layer of tissue. It is located below the bladder, in front of the rectum and surrounds the urethra (a tube-like structure that carries urine from the bladder out through the penis). The main function of the prostate is to produce ejaculatory fluid.

Risk factors for developing BPH include increasing age and a family history of BPH.

The cause of BPH is not well understood. For centuries it has been known that BPH occurred mainly in older men and that it did not develop in men whose testes had been removed before puberty. As a result, researchers believe that the factors relating to aging and the testes may spur the development of BPH, but this is just one of several existing theories.

Symptoms of BPH stem from obstruction of the urethra and gradual loss of bladder function, which results in incomplete emptying of the bladder. BPH symptoms usually start after the age of 50 and 90% of men over the age of 80 have BPH. However, less than half of all men with BPH have symptoms, which may include:

- Slow or delayed start of the urinary stream.
- Weak urine stream.
- Dribbling after urinating.
- Straining to urinate.
- Strong and sudden urge to urinate.
- Incomplete emptying of the bladder.
- Needing to urinate 2 or more times a night.
- Urinary retention (complete inability to urinate).
- Incontinence.
- Pain with urination or bloody urine (may indicate an infection).

In order to assess the severity of the above symptoms, the American Urological Association BPH Symptom Score Index was developed. This diagnostic system includes a series of questions and asks how often the symptoms occur, which helps to categorize BPH from mild to severe.

Evaluation for BPH will consist of a thorough medical history, a physical exam including a digital rectal exam (DRE), use of the AUA BPH Symptom Index Score and urinalysis. Further testing may be done at the discretion of your doctor. BPH needs to be treated when the symptoms are severe enough to bother you or complications of BPH develop, including loss of kidney function, recurrent urinary tract infection or the inability to urinate.

Although, BPH isn't a precursor to prostate cancer and does not increase your risk of prostate cancer, it is possible to have BPH and prostate cancer at the same time. Digital rectal exam and prostate-specific antigen test (PSA) are two good detectors for of both of these conditions.

Treatment is based on the severity of symptoms, the extent to which they affect your daily life and any other medical conditions. Some possible treatments may include:

1. "Watchful waiting" may be an option if symptoms are mild to moderate and are not severe enough to make you want to seek medical treatment.
2. Lifestyle changes that may help include:
   - Limiting beverages in the evening and refraining from drinking one to two hours before bed to avoid trips to the bathroom during the night.
   - Limiting caffeine and alcohol intake as these can increase urine production, irritate the bladder and worsen symptoms.
   - Limiting diuretics and/or talking to your doctor about the dose, or time, you take them. Don't stop taking your diuretics without first talking to your doctor.
   - Limiting decongestants or antihistamines as use of these drugs can make it harder to urinate.
   - Urinating when you first feel the urge because waiting too long may over stretch the bladder muscle and cause damage.
   - Inactivity causes you to retain urine – so stay active.
   - Keep warm – Colder temperatures can cause urine retention and increase your urge to urinate.
3. Medications are the most common, and preferred, way to control mild to moderate symptoms of BPH unless your condition is severe enough to require surgery. Medications significantly reduce major symptoms for about two thirds of the men that try them. Alpha Blockers (i.e., Hytrin, Cardura, Flomax, and Uroxatral) relax the muscles around the bladder neck and making it easier to urinate. Alphareductase inhibitors shrink the prostate gland (i.e., Proscar, Propecia and Avodart).
4. Minimally invasive therapies are non-surgical ways to relieve BPH. They focus on enlarging your blocked urethra to increase urine and decrease the urine remaining in the bladder. These procedures include:
   - Transurethral Microwave Therapy (TUMT)
   - Transurethral needle ablation (TUNA) also called radiofrequency therapy.
   - Interstitial Laser Therapy (ILT)
   - Prostatic Stents – Metal coils inserted into the urethra to widen it and keep it open.
5. Surgery is usually recommended when non-surgical treatments fail, or if you have any of the following complications of BPH: frequent urinary tract infections, recurring episodes of urine retention, bladder stones, blood in your urine or kidney damage from urine retention. Surgical procedures include:
   - Transurethral resection of the prostate (TURP)
   - Transurethral incision of the prostate (TUIP)
   - Laser surgery
   - Open prostatectomy

Once a diagnosis of BPH is made, discuss your symptoms and options with your doctor. Ask your doctor these questions about each treatment: What is my chance of getting better? How much better will I get? What are the chances that the treatment will cause problems? How long will the treatment work?

Also, ask yourself these two important questions: If my BPH is not likely to cause me serious harm, do I want any treatment other than watchful waiting? If I do want treatment, which is best for me based on the benefits and risks of each?

Remember it is common for the prostate gland to become enlarged as a man ages, being aware of symptoms and treatments helps you and your doctor make an informed decision.

November is National Alzheimer's Disease Awareness Month

Alzheimer's disease is the most common form of dementia. By destroying brain cells, Alzheimer's disease causes serious difficulties with thought, memory and communication. Abnormal deposits of protein "plaques and tangles" in the brain lead to this cell destruction.

The 10 Warning Signs of Alzheimer's Disease

1. Memory loss that affects day-to-day function.
2. Difficulty performing familiar tasks.
3. Problems with language.
4. Disorientation to time and place.
5. Poor or decreased judgment.
6. Problems with abstract thinking.
7. Misplacing things.
8. Changes in mood or behavior.
9. Changes in personality.
10. Loss of initiative.

Although there is no single known cause, several factors may contribute to a person's risk of developing Alzheimer's disease. Age is the most common risk factor and the number of people with the disease doubles every 5 years beyond age 65. Family history and genetics may be other factors. Researchers are studying diet, environment, educational level and the presence of other health issues (i.e., high blood pressure, high cholesterol, heart disease and stroke) as other possible risk factors.

The symptoms of Alzheimer's disease begin with mild difficulties in memory, language and the ability to do simple tasks. As the disease progresses, these symptoms become more noticeable and serious enough for the person or their caregiver to seek medical attention.

Eventually, the inability to think clearly, failure to recognize familiar people, and the inability to maintain personal health may lead to the affected person needing total care.

There is no specific diagnostic test to diagnose Alzheimer's disease. Various medical examinations, laboratory studies, a mental status examination and talking with caregivers or family members, may help the physician make a diagnosis.

While a cure is not yet available, there are treatment and care giving options. Certain medications can improve quality of life and cognitive functions, including memory and reasoning. Antioxidant vitamins (i.e., Vitamin E) may be beneficial and strategies including regular exercise, providing a predictable routine and fostering independence can be valuable to the affected person and their caregiver.

Someone with normal age-related memory changes:

- **Forgets part of an experience.**
- **Often remembers later.**
- **Is usually able to follow written/spoken directions.**
- **Is usually able to use notes as reminders.**
- **Is usually able to care for self.**

Someone with Alzheimer's disease symptoms:

- **Forgets entire experiences.**
- **Rarely remembers later.**
- **Is gradually unable to follow written/spoken directions.**
- **Is gradually unable to use notes as reminders.**
- **Is gradually unable to care for self.**

P.O. Box 1368
846 Jefferson Avenue
Scranton, PA 18501

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Ideas for Our Newsletter?

Contact:

Sharon Falzone, Ph.D., Director
Northeastern PA Health Care Quality Unit
Toll-free at 1-877-315-6855 or
sf@theadvocacyalliance.org.