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STROKE: IT'S A BRAIN ATTACK!

YOU HAVE 3 HOURS.

6 hours is too late. The next day is too late. You had a stroke and you didn't want to go to the hospital. You wanted to wait and see if you got better. **YOU HAD 3 HOURS.....**to get the t-PA for your blood clot in the brain that would save your ability to speak, see, walk, and move normally. If you had gone to the Emergency Room in time, you might be able to use your right arm today. You might be able to see out of BOTH of your eyes.

STROKE...IS A BRAIN ATTACK! It is caused by an interruption in blood flow to the brain. Your blood vessels bring oxygen and nutrients to feed the brain cells. If this flow is interrupted, the brain cells start to die. When that happens, your brain has an attack. It is just like a heart attack to the heart. This can be caused by a blood clot cutting off circulation in the brain (an ischemic attack) or when a blood vessel in the brain bursts (a hemorrhagic stroke). It is serious and it requires immediate attention. If you think someone is having a stroke, call 9-1-1 right away! Time is the factor that makes the difference in becoming disabled or dying....and living with function. You only have 3 hours to get to the hospital, be assessed by the physician and to have t-PA implemented. This is the stroke protocol medication that busts up blood clots in your vessels and decreases the chance of further damage to the brain.

But, let's back up a little bit to look at what was going on in your body before you had this stroke. The National Institute of Neurological Disorders and Stroke lists 5 major signs of a stroke which include **SUDDEN:**

1. Face, arm, or leg numbness
2. Trouble speaking or understanding, confusion
3. Vision problems in 1 or both eyes
4. Loss of balance, trouble walking, dizziness, or coordination problems
5. Headache that is severe and there is no known cause

You wish now you hadn't waited to go to the ER. You know a lot more about stroke than you did before you had this one. There are so many disabilities a stroke can cause and each person is different in how it affects them. Stroke can cause:

- Death
- Coma
- Difficulty swallowing
- Loss of short-term memory
- Behavioral problems such as depression, impulsive behavior, inappropriate social behavior
- Aphasia (speech problems)
- Shortened attention span
- Loss of motor ability and muscle tone
- Loss of vision

- Loss of sexual function
- Loss of bowel and bladder control
- Paralysis
- Difficulty learning or retaining new information

What does this sound like? Do some of these symptoms sound like many of our consumers' disabilities?

There are preventative measures you can take to decrease your chances of having a stroke. The National Stroke Association lists the following risk factors for having a stroke:

- High Blood Pressure
- Alcohol (moderation only)
- Atrial Fibrillation
- Smoking (stop)
- High cholesterol
- Diabetes (control it)
- Diet (should be low salt, lower fat diet)
- Exercise (you must do it)

ACT FAST when you or someone you care about is having a stroke:

F=FACE Droops when smiling

A=ARM Arm drifts down as raised above head

S=SPEECH Slurring

T=TIME Call 9-1-1 if any of these signs occur.

INNOVATION IN STROKE THERAPY

To advocate in the best interests of our consumers as well as for ourselves and our loved ones, we have to be knowledgeable about the innovations that are out there and ask for them. Do you think that just because these things exist, that they will be offered to every individual that they may be effective for? It won't happen. Depending on where you live, who your physician is, and what hospital you end up in when you have your stroke...these innovative therapies may or may not be available to you. If you have a consumer or family member who is high risk for a stroke, you may want to find out what therapies are available at your hospital. In some areas, there may be several choices of where you could go...and one hospital will have the therapy whereas the hospital 3 miles away does not.



Thrombolytic medications came on the scene in the 1990s, offering the first jump ahead in stroke treatment from the 'wait and see' approach formerly used. These meds help to get blood flow going again after a clot or clots have blocked vessels in the brain. Activase® (Alteplase recombinant), also called t-PA (tissue plasminogen activator) was the first to be approved by the FDA for ischemic stroke treatment. These are the drugs that must be given as soon as possible to be effective. Remember, you only have 3 hours! If you are given this medication within 3 hours of a stroke, your chances are improved by 33% to recover with little or no disability after 3 months. It does come with its risks, the most common complication being brain hemorrhage, but studies show that there has not been a higher death rate due to t-PA. Stroke victims who wait and do not get to the hospital within the 3 hour window to be able to

get t-PA, could try out the fairly new Merci® Retriever approved by the FDA in 2004 and manufactured by Concentric Medical. This gives you more options beyond 3 hours and has been proven to restore brain circulation for stroke patients. It is a little corkscrew device that works by wrapping around the clot in the vessel and capturing it so it can be removed from the body. You can watch a demonstration of this device in use at www.stroke.org

Just a year ago, a new system that uses suction to grab blood clots in the brain and suck them out, was approved. The Penumbra System is available and offers physicians and patients more alternatives for dealing with acute ischemic stroke beyond the 3-hour range. The Penumbra System can be used within 8 hours of the onset of your stroke symptoms. So, you see, you still cannot sit at home and 'wait it out' to see if you had a stroke or not. Get to the ER!

Medical innovations are fantastic and they save many people's lives, but the truth is...you have the opportunity to be the innovator for your consumers and yourselves and families. Find out what your controllable Risk Factors are and control them! That's the way to keep from having a stroke. Are your consumers eating the wrong foods? Not exercising? Smoking? Have diabetes? Overweight? This greatly increases their risks. You can be the innovation in their lives to improve their health lifelong. To find out what your (or your consumers') STROKE RISK is, go to the National Stroke Association's website at www.stroke.org and go to the Stroke Risk Scorecard. Find the personal statistics for each of the Risk Factors (blood pressure, cholesterol, diabetes, smoking, atrial fibrillation, diet, exercise, family history of stroke) and see how you and your consumers measure up! Most of these things are controllable and can greatly improve chances of not having a stroke. LEARN MORE about stroke by going to the CDC's website and viewing free Podcasts related to this topic. There are 4 Podcasts that can be found and used as training with your consumers and staff at www.cdc.gov/Features/Stroke/. Many other resources are also found at that site.

WHAT IS A TIA?

A transient ischemic attack (TIA) is an event that happens in or around the brain that can cause symptoms which last less than 24 hours and then they go away. These are often called mini-strokes and are a warning sign of a possible impending stroke. They should not be ignored! TIAs usually do not cause permanent brain damage but more than 1/3 of people having TIAs go on to have an actual stroke at a later time. About 20% of people having TIAs will have a stroke within 2 years of their TIA episode.

The symptoms of a TIA and a stroke are the same. This is part of what makes a TIA so scary. Symptoms occur suddenly and include numbness or weakness of the face, arm, or leg (especially on one side), confusion, difficulty talking or understanding what is going on, trouble seeing with one or both eyes, problems walking, feeling dizzy, or coordination issues. If you or someone you know has these symptoms even for just a short time....do not wait....get to the Emergency Room. Even though you now know that TIAs will go away, you cannot wait to find out if what you are having (or what a consumer is having) is a TIA. If it is a stroke, it may be too late to get the best treatment possible if you wait.

So, if a TIA is like a mini-stroke, but the symptoms go away after awhile, then what causes a TIA? Why is it so dangerous?

Remember that a stroke occurs either when there is a complete block-

age of a blood vessel in the brain, or when there is an aneurysm that bursts and bleeds out into the brain. With a TIA, what happens is a blood vessel in the brain becomes partially blocked or only blocked for a short time, maybe from plaque buildup (how's your cholesterol?). It also may be blocked temporarily by a blood clot in another part of the body (like from the heart) breaking off and traveling to the brain. People with atrial fibrillation and other heart conditions can have this happen.

So what do I do to keep from having a stroke if I've had TIAs?

Your doctor may do some tests to determine the cause of your TIA. These could be blood tests to check for clotting problems, an x-ray or MRI of the brain, or tests to check for irregular heartbeat. Lifestyle changes such as diet and exercise will help. See your physician for recommendations for other treatments such as medications to control your high blood pressure, high cholesterol or heart disease. There are also several medications to help prevent blood clots from forming. Sometimes surgery, called endarterectomy, may be required to the carotid arteries in the neck that supply blood to the brain, to clean them out and stent them to keep them open. Prevention is key and quick follow up with ER and your physician if a TIA occurs!

KNOW YOUR STROKE TERMINOLOGY

Aphasia—difficulty understanding or creating speech, writing, or language due to damage in the speech center of the brain.

Apraxia—this is a movement disorder usually caused by damage to the parts of the brain responsible for voluntary movement. It is characterized by the inability to create purposeful movement.

Aneurysm—is a 'balloon' in the blood vessel where the vessel has stretched out. It can rupture, causing a stroke if it happens in the brain.

Brain Attack—is like a heart attack only it is in the brain and is caused by lack of oxygen to part of the brain.

Brain Stem—the part of the brain that connects with brain above and the spinal cord below. It controls basic, but vital, functions such as heart rate, breathing, etc.

Cerebellum—the smaller part of the brain at the back bottom section. It functions in move-

ment, rehearsed activities, coordination, and other functions.

Cerebrovascular accident (CVA)—is a hemorrhage or bleeding in the brain.

Cerebrum—is the larger upper part of the brain in which higher functions of cognition, personality, reasoning, hearing, vision, and many others, occur.

Dysarthria—can be caused by a stroke. It is difficulty speaking or forming words or language.

Dysphagia—can be caused by stroke and is characterized by difficulty swallowing and eating.

Embolism—is a blood clot that travels through the body. If it gets stuck in the brain, it can cause a stroke.

Hemiparesis—can be caused by stroke. It is weakness on one side of a person's body.

Hemiplegia—can be caused by stroke. This is paralysis on one side of a person's body.

Intracranial—means within the skull/head.

Ischemic—means lack of oxygen. An ischemic stroke is one in which death of part of the brain occurs due to lack of oxygen.

Paresis (paretic)—is an incomplete paralysis or weakness of the arms or legs.

Plegia—is lack of voluntary movement.

Thrombosis—is a blockage of the flow of blood through a blood vessel within the brain by a clot that formed within the brain.

Vertebral Arteries—there are 2 of these and they run up the back of the neck and join together at the base of the skull to form the basilar artery which supplies blood to some of the brain.

