Stroke

Strokes occur whenever the blood supply to a part of your brain is severely reduced or interrupted, which results in the brain tissue being deprived of oxygen. Within a matter of minutes, the brain cells begin dying off. Strokes are a medical emergency. Prompt medical treatment is a necessity. Early action can help to minimize the amount of brain damage you incur, as well as any potential complications.

Strokes can be prevented and treated. In the general population, there are far fewer dying from a stroke now than what there were 15 years ago. Being able to control the main risk factors, such as smoking, high blood pressure and high cholesterol, can go a long way in reducing the amount of stroke sufferers. Medication has also improved, and statins, blood thinners, blood pressure medication and other heart medications can help to reduce the likelihood of a stroke.

Stroke Anatomy

There are three main components of the brain – the cerebellum, the cerebrum and the brainstem – all of which have their own distinct set of functions. The cerebrum is the largest of all components, as well as the most developmentally advanced portion of the brain. It controls several of the higher functions, such as speech, emotion, higher intellectual functions, sensory stimuli integration, fine motor control and final pathways for movement.

The cerebellum, which is the second largest region, handles balance, coordination and movement control. The brain stem is the last pathway between the spinal cord and the cerebral structures. It controls an array of different functions, such as heart rate, respiration, wakefulness, blood pressure, attention and arousal.

The left part of the cerebrum controls the right side of the body, while the right part of the cerebrum controls the left side.

How to Treat a Stroke:

1. **Medication**
   In cases of an ischemic stroke, you need therapy using clot-busting drugs within 4.5 hours into the vein. The sooner they are administered, the better. Quick treatment will reduce any complications from the stroke. Doctors might have to insert a catheter into an artery through your groin and thread it into the brain to release TPA into the area where the stroke is happening.

2. **Clot Removal**
   Doctors will often use a catheter to maneuver a small device into the brain and grab the clot to remove it from the affected area.

3. **Carotid Endarterectomy**
   In this procedure, the surgeon will remove any fatty deposits from the carotid arteries running alongside the neck and into the brain.

4. **Stents and Angioplasty**
   In this procedure, the surgeon will insert a stent and balloon onto the tip of the artery in the groin and guide it up to the blocked carotid artery in the neck. The balloon is inflated in the narrow artery and the stent is inserted into the opening to prevent the artery from becoming too narrow.

Taking Aspirin to Prevent Stroke

In 2014 the Food and Drug Authority (FDA) advised that taking aspirin daily may not prevent a heart attack or stroke. And long term use could cause bleeding. Some medical experts believe that taking aspirin when you are having a stroke may reduce the possibly negative effects from the stroke, but this would depend on the type of stroke the patient is having (ischemic or hemorrhagic). So the official advice is to wait until you are assessed by a doctor before taking any medication. The doctor might first want to do a CT scan of the brain to assess the damage/bleed.

Tips:

- One of the main things you can do is to keep your blood pressure at an optimal level. Manage stress, exercise and limit sodium and alcohol to help get your blood pressure in check.
- Smoking increases your risk of stroke, so quitting can help minimize your risk.
- Eat less fat and cholesterol to reduce the amount of plaque in your arteries.
- Being overweight can contribute to a number of health problems, so you want to try and get your weight under control.
- Manage diabetes with exercise, medication, diet and weight control.

