

Palm Drive Hospital  
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# **STROKE**

## **(BRAIN ATTACK)**

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### **Your Care in the Hospital**

### **And**

### **At Home**

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*Welcome to Palm Drive Hospital*

Please review this information about your health condition. We want you to be involved in the decisions affecting your care. If you have family members, caregivers, or friends caring for you, please have them read this information.

Each person has a unique health condition. If you have any questions, please ask the doctors, nurses and therapists caring for you.

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# Your Care in the Hospital

## What is a Stroke (Brain Attack)?

A stroke (brain attack) occurs when a blood vessel (artery) bringing blood to the brain is blocked or has burst. This lack of blood flow causes the brain cells to die. This may result in a loss of certain body functions, such as inability to speak or move a part of the body. This depends on two things:

- which part of the brain was damaged
- how severe the attack was

Stroke is the third leading cause of death in the United States after heart disease and cancer and is the leading cause of serious and long-term disability.

There are two types of strokes: ischemic and hemorrhagic.

1. **Ischemic strokes:** account for about 80% of all strokes. Ischemic strokes happen when the blood supply to the brain is blocked. There are two main types of ischemic strokes:
  - a. **Thrombotic strokes:** are the most common type of stroke. These strokes are caused by a blood clot (thrombus) in an artery blocking blood flow to a part of the brain. These blood clots are usually formed in arteries damaged by atherosclerosis, or **plaque**.
  - b. **Embolic strokes:** are caused by a wandering clot (embolus) that is formed elsewhere (usually in the heart or neck) which clogs an artery.
2. **Hemorrhagic strokes:** account for about 20% of all strokes. Hemorrhagic strokes happen when there is a rupture of an artery causing bleeding within the skull. There are two types of hemorrhagic strokes:
  - a. **Intracerebral hemorrhage:** bleeding occurs within the brain itself.
  - b. **Subarachnoid hemorrhage:** bleeding occurs on the surface of the brain in the subarachnoid space (between the brain and the skull). Most often it is caused by a ruptured aneurysm (a blood-filled pouch that balloons out from an artery wall) or arteriovenous malformation (AVM, a tangle of blood vessels that is congenital).

## Your Hospital Stay

Your hospital stay can vary. On average, people stay in the acute care hospital from 3-6 days after an ischemic stroke and possibly longer after a hemorrhagic stroke. The length of stay also depends on (1) if surgery is required, (2) if the cause of the stroke has been determined, and (3) if any additional therapy is required.

## Understanding Your Medications in the Hospital

### Immediate Treatment for Ischemic Strokes

#### **Clot Busting Medication**

You may receive medications in the vein (intravenously) to treat an ischemic stroke. These medications, called *thrombolytics*, help break up the blood clots caused by the stroke. In general, this treatment must be given within 4.5 hours after the start of a stroke then blood thinners may be used to prevent further clots from forming.

The major risk of these treatments is bleeding. This bleeding can be quite severe and may be life threatening.

#### **Ischemic Stroke Prevention**

An important part of your stroke care includes taking medications that prevent any further blood clots from forming. You may receive one of the following two types of clot prevention medications:

1. **Anticoagulants (“blood thinners”):** Coumadin (Warfarin) or Heparin
  - **Purpose:** To prevent any new blood clot formation.
  - **Action:** These medications prevent blood clots from forming or growing.
  - **Possible side effects:** Bleeding or bruising.
  - **These medications require frequent blood testing and close monitoring by your doctor.**
  
2. **Antiplatelets:** Aspirin, Clopidogrel (Plavix), Dipyridamole/Aspirin combination (Aggrenox)
  - **Purpose:** To prevent thrombotic strokes.
  - **Action:** Antiplatelets prevent blood clots from forming or growing.
  - **Possible side effects:** Bleeding or bruising.
  - **These drugs do not require blood testing.**

### **WARNING SIGNALS of BLEEDING**

Let your doctor and nurse know if you have any signs of bleeding such as:

- easy bruising
- bleeding when you brush your teeth
- dark brown urine
- dark brown, red or black stool
- cuts that won't stop bleeding

## Surgical Treatments and Interventional Radiology Interventions

### Ischemic Strokes

**Some strokes are caused by a blockage to the carotid arteries.** These arteries are located on both sides of the front side of the neck. Blockage of these arteries can greatly increase the risk of a stroke.

- \* **Carotid Endarterectomy (CEA)** is a surgical procedure that may be considered if the cause of your stroke is blockage of the carotid arteries. This surgery removes the blockage.
- \* **Carotid angioplasty and stenting:** *Angioplasty* is a procedure that opens the blocked artery. The doctor inserts a catheter (thin tube) with a small balloon around it into the artery. The balloon is inflated to open up the blood vessel. The doctor may also place a hollow mesh tube called a *stent* into the artery to hold it open. Like carotid endarterectomy (CEA), this operation can lessen the risk of another stroke.

### Hemorrhagic Strokes

**Subarachnoid Hemorrhage (SAH):** The treatment for this type of stroke can vary. Surgery or endovascular (catheter) coiling may be recommended by your doctor.

- \* **Surgery—clipping the aneurysm through craniotomy:** This involves drilling a hole in the skull to allow the surgeon to directly repair the aneurysm. A metal clip is placed at the base of the aneurysm, sealing it off completely.
- \* **Coil Embolization:** This involves packing the aneurysm with super thin coiled threads. This procedure is performed from within the blood vessels and is considered less invasive than open surgery.

At Palm Drive Hospital we work closely with state-of-the-art specialists at California Pacific Medical Center in San Francisco. They have agreed to accept any of our patients who require these surgical interventions.

**Intracerebral Strokes (ICH):** This type of stroke is usually treated with medical therapy, although surgical treatment may also be done.

- \* **Medical: Lowering of blood pressure and control of bleeding** with medications to stop bleeding can be used.
- \* **Surgery: Removing the clot** through a hole drilled in the skull.

## Tips to Help Yourself Following a Stroke (Brain Attack)

Once you have a stroke or TIA, you are at greatly increased risk of another stroke. You need to watch for signs or symptoms of stroke so you can call your doctor and prevent further brain injury. **Time lost is Brain Lost!!!**

- Let your doctors, nurses and/or therapists know right away if you have any of the following warning signs of a stroke. There are 3 easy *SYMPTOMS* to look for to tell if a person has just had a *stroke*:
  1. Facial droop is best seen when the person smiles.
  2. Arm: Ask the person to hold out their arms with hands facing up and close their eyes. One side will drift down in a stroke. Weakness/loss of sensation may be seen in an arm or leg.
  3. Speech: slurred, inappropriate words, or must.
- Ask for help from your nurse the first few times when you are able to get out of bed.
- Work with your case manager to make plans for your rehabilitation needs or going home.
- Obtain information about stroke and secondary stroke prevention (risk factors). This includes blood pressure control, blood sugar control, dietary considerations, weight control and the stopping of cigarette smoking. (See “Medical Conditions that Increase Your Stroke Risk” further on in this brochure.)
- If you smoke, now is the time to stop. If you want suggestions on how to quit while you are here, talk with your doctor and nurse.
- Call the California Smokers’ Help Line at 1-800-NO-BUTTS (1-800-662-8887) for support and a list of resources in your county to help you stop smoking.

## Planning Your Activities

- Depending on what you can do, start moving slowly by turning in bed, sitting in a chair, or walking to the bathroom. The nurses will assist you with these activities until you are safe to do them on your own.
- A physical therapist will teach you how to move safely and how to correctly position the part of your body affected by the stroke. This is especially important if you have any difficulty moving around or in moving your arms or legs.
- An occupational therapist will work with you to relearn activities of daily living such as eating, drinking, dressing, writing, reading, toileting, etc.
- A speech or occupational therapist will help you find the best way to communicate if you have having trouble speaking or understanding spoken words.
- A speech therapist will work with you if you have difficulty swallowing. The speech therapist will help train you to eat and will recommend the best types of foods you need.

## About Your Diet

- You will have your regular consistency diet if you are able to eat and swallow safely.
- A dietitian will work with you to help you choose a balanced diet.

- If you use dentures and/or glasses, please have your family or friends bring them to the hospital.

## If You Have Swallowing Difficulty

- A speech therapist and a dietitian will help you find the best types of food for you to eat and show you ways to swallow safely.
- **Use the following techniques to prevent food from going “down the wrong way” into your airway (lungs):**
  - \* Sit upright in a chair for meals.
  - \* Take small bites and eat slowly. Give yourself time to chew your food.
  - \* Take one bit or sip at a time.
  - \* Avoid talking with food in your mouth.
  - \* Avoid using a straw to drink liquids.
  - \* Make sure you swallow everything in your mouth and do not have any food left behind in your mouth.
  - \* Sit up for about 30 minutes after you finish a meal before you lie down.

## Your Treatment and Tests

- **Oxygen therapy:** if needed.
- **Intravenous (IV) fluids:** may be given into your vein until you are able to drink fluids.
- **A feeding tube may be placed:** if you are not able to swallow foods or drinks.
- **A urinary catheter (small, thin tube):** is sometimes inserted into your bladder to help you pass urine. It will be taken out when you no longer need it.
- **“Neuro Checks”:** Your nurse and doctor will do frequent checks to see if the stroke has affected your thinking, memory, and the movement of your arms and legs. They will ask you to tell your name, the date, and your present location. They will check the reaction of your eyes to light and the strength and movement of your hands and feet. In assessing your progress, some of the things they ask you may seem repetitive, but they are very useful.
- **Swallowing Study:** This test will be done if you are having any difficulty swallowing.
- **Head CT scan and/or MRI scan:** shows pictures of your brain and can tell what kind of stroke you have had and its location.
- **Carotid Ultrasound:** This test may be done to look at the arteries on the sides of your neck.
- **Echocardiogram:** This test may be done to look at your heart and heart valves.

## Getting Support from the Medical Team

- Stroke is a serious condition that can cause some disabilities. This may be shocking and hard to cope with for you and your family. You and your family may feel depressed, anxious, frustrated, and angry after a stroke. If you have any of these feelings, please share them with us.
- Doctors and nurses are available to listen to your concerns and feelings, as well as RN case managers and social workers.
- RN case managers are available to assist you with getting ready to go home.
- RN case managers and social workers are available to assist with concerns related to finance and your home situation.
- Case managers are available for help in emergencies or particularly difficult situations. They can also give you information about community resources for assistance over the long term.
- Financial counselors are available if you have questions or concerns about your health insurance.

## Arranging Your Transportation Home

- You should be able to go home safely in a family member or friend's car.
- Ask to speak with a case manager if you will need help getting home or help getting up the stairs. Most insurance will not pay for your transportation home.

## Preventing Another Stroke (Brain Attack)

About 1/3 of all stroke survivors will have another stroke within 5 years. There are many stroke risk factors that can be controlled such as high blood pressure, smoking, high cholesterol, and irregular heartbeat. Therefore, it is very important that you work with your doctor to determine the most likely cause of your stroke and the best course of treatment for you. Living a healthy lifestyle and having potential medical problems regularly treated and closely followed, you may reduce your risk of having another stroke.

## Medical Conditions that Increase Your Stroke Risk

### High Blood Pressure

High blood pressure (hypertension) increases your risk of having a stroke 4 to 6 times. High blood pressure is a leading cause of stroke, but it is treatable. Continuously high blood pressure causes blood vessels to develop plaque, damages the endothelial surface of the blood vessels, and promotes plaque rupture and the formation of blood clots. Blood clots can block the blood vessel locally or can break off and embolize the brain. High blood pressure can increase the likelihood that small, thin/weak walled blood vessels rupture producing a bleed inside the brain.

Current guidelines recommend that all stroke patients maintain a normal blood pressure (120/80 or below).

**What you can do:**

- Check your blood pressure regularly. If it is more than 135/85, tell your doctor. Current guidelines recommend a target BP of 120/80 or below.
- Eat low fat, low salt foods.
- Stop smoking.
- Exercise regularly at least 3 times a week (15-40 minutes each time). Check with your doctor before starting an exercise program.
- Take medications prescribed by your doctor to control your blood pressure.

## **Diabetes**

Diabetes (high blood sugar levels) increases your risk of having a stroke two to three times.

**What you can do:**

- Follow the diet recommended by your doctor or nutritionist.
- Exercise regularly at least 3 times a week (15-40 minutes each time). Check with your doctor before starting an exercise program.
- If you are overweight, talk to your doctor or nutritionist about how to lose weight.
- Take medications as prescribed for your diabetes. Tight blood sugar control will reduce your risk even more.

## **Heart (Cardiovascular) Conditions**

Conditions such as heart failure, previous heart attack, heart-valve disease and especially atrial fibrillation (irregular heartbeat that is not temporary of the left atrium, which is the left upper chamber of the heart) can put you at a great risk of stroke. If left untreated, atrial fibrillation can increase your risk of having a stroke four to six times.

**What you can do:**

- Have regular check-ups with your doctor.
- Take medications prescribed by your doctor for your heart condition.

## **Smoking**

Smoking doubles your risk of having a stroke. If you smoke, **STOP** today. In addition to harming the lungs, smoking also damages blood vessel walls, hardens the arteries, makes the heart work harder, and raises blood pressure. If you stop smoking today, with 2-5 years your risk of stroke will be the same as that of someone who has never smoked.

**What you can do:**

- Ask your doctor for help in quitting smoking
- Call the California Smokers' Help Line at 1-800-NO-BUTTS (1-800-662-8887) for more information on smoking cessation.

- If you are in the hospital, you can speak with a nurse who counsels patients on smoking cessation. We can also give you a pamphlet with helpful tips and a referral for individual or group support.

### **High Cholesterol Levels**

Excess cholesterol can settle on artery walls and lead to the eventual blockage of these vessels. It may put you at an increased risk for stroke.

#### **What you can do:**

- Know your cholesterol numbers.
- Eat a diet that is low in cholesterol and fat, especially saturated fat. High cholesterol and fat are found in egg yolks, meat, and dairy products.
- Exercise regularly at least 3 times a week (15-40 minutes each time). Check with your doctor before starting an exercise program.
- Take medications prescribed by your doctor.

### **Heavy Alcohol Consumption**

Having more than 2 alcoholic drinks per day can increase your blood pressure, can increase your risk for stroke by 3 times, and can lead to liver disease and more.

#### **What you can do:**

- If you drink alcoholic beverages, consult with your doctor regarding the risk of a stroke associated with your alcohol consumption.
- Limit and amount of alcohol you drink per your doctor's instructions or to less than 3 oz. of liquor, 8 oz. of wine, 24 oz. of beer a day, or 2 drinks per day.

### **Illicit Drug Use**

Drugs such as cocaine, amphetamines, and heroin can increase your blood pressure and cause irregular heartbeats that can lead to a stroke.

#### **What you can do:**

- Ask your doctor about a treatment program to help you stop taking these drugs.

### **Infections**

Viral and bacterial infections may increase the risk for stroke.

#### **What you can do:**

- Maintain good oral, dental, and bodily hygiene.
- Thorough hand washing after using the rest room and before touching any part of your face (nose, eye, mouth).
- Consult with your doctor about any unusual or persistent infection and any slow or non-healing wound.

## **Narrowing of Carotid Arteries**

Carotid arteries are large blood vessels on either side of your neck where plaque formation can occur.

### **What you can do:**

- Consult with your doctor. Ask about the condition of your carotid arteries and whether it contributes to your risk of stroke.
- Take your prescribed blood-thinning medication.
- Your doctor may suggest surgery or angioplasty to remove plaque to prevent a stroke. This will depend on the amount of the carotid blockage you may have.

## **Obesity / High Cholesterol-fat Diet / Lack of Exercise**

Obesity, high cholesterol/fat diet, and lack of exercise may increase your risk of stroke. These risk factors can cause high blood pressure, heart disease, atherosclerosis, and diabetes.

### **What you can do:**

- Control your weight. Consult with your doctor regarding an appropriate weight for you.
- Change to a healthy diet: low cholesterol, low fat, plenty of whole grains, fruits and vegetables (4-6 servings per day).
- Exercise regularly at least 3 times a week (15-40 minutes each time). Check with your doctor before starting an exercise program.

## **Stress**

Psychological stress influences the development and progression of atherosclerosis. Stress can raise blood pressure and intensive stress can markedly raise blood pressure. Therefore, stress can be particularly dangerous in a person with high blood pressure and atherosclerosis conditions. Researchers agree that a lessening of stress or the conversion of abnormal stress to normal stress may indirectly help the stroke-prone person.

### **What you can do:**

- Try stress relieving techniques such as physical exercise, relaxation exercises, meditation, and involvement in leisure activities.
- Express your feelings and concerns with loved ones, your medical doctor and staff.

# Your Care at Home

## Making Your Follow-up Appointment

You will need to see your doctor 1 to 2 weeks after you go home.

## Understanding Your Medications at Home

Please see anticoagulants and Antiplatelets medications for ischemic stroke prevention in the section heading *Understanding your Medications in the Hospital / Ischemic Stroke Prevention*.

## Warning Signs of a Stroke (Brain Attack)

If you have neurological symptoms that are different from, or much worse than your original symptoms, contact your physician immediately or call 911 — **DO NOT WAIT**.

We are able to treat certain types of strokes (brain attacks), but the treatments must be given in a hospital and within 3 hours after symptoms of brain attack first appear.

**TIME LOST IS BRAIN LOSS. So..... do not wait, every minute counts!**

**F A S T** will help you recognize symptom(s) of a *stroke*:

- **Face:** Facial droop is best seen when the person smiles.
- **Arm:** Ask the person to hold out their arms with hands facing up and close their eyes. One side will draft down in a stroke. Weakness / loss of sensation may be seen in an arm or leg.
- **Speech:** slurred, inappropriate words, or mute.
- **Time to call your physician right away, or 911.**

## Planning Your Activities

- Do as much for yourself as you can at home. Plan for breaks and get enough rest. You can also plan activities out of the house.
- Practice the skills and exercises you were taught in the hospital.

- Take every opportunity to use your weak limbs. Recovery may continue over several months if you use your weak limbs as much as possible.
- Some people continue to receive therapy at home or come to the hospital for outpatient therapy.
- Talk with your doctor about when you can go back to your usual activities.
- You may feel tired after a stroke for several reasons:
  - \* You may have less energy than before.
  - \* You may have as much energy as before, but you are using it differently.
  - \* You may feel more tired due to emotional rather than physical changes.
  - \* You may have depression which is a treatable illness that happens to many stroke survivors. Symptoms include: lack of energy, lack of motivation, lack of concentration, or not finding enjoyment in anything. Talk to your doctor about an evaluation for clinical depression if tiredness continues.

## About Your Diet

Prepare the proper kind of food as recommended by your speech therapist and dietitian.

## Tips on Personal Care & Safety at Home

### **Bathing:**

If you are weak on one side or get dizzy, use a shower chair. Your occupational therapist will help you decide the best shower chair for you.

### **Preventing Injuries:**

- Place things within reach in all rooms; don't reach out for things.
- Use all assistive devices properly.
- To prevent falls avoid using a bath rug inside the bathroom and remove any rug that is not nailed down.
- Clear up all barriers in your room, the hall, and doorway.
- Learn how to prevent a future stroke (brain attack) by following instructions given in the section on secondary stroke prevention.
- **Call 911** or use a lifeline in an emergency situation.

## Emotional Changes After a Stroke

After a stroke, emotional changes may occur. Emotional changes may come from a biological cause due to the stroke, or from a psychological cause related to the effects of the stroke.

### **Biological Causes:**

- Emotional lability with rapid mood changes. You may experience episodes of crying or laughing that do not seem to match your mood.
- Post-stroke depression is characterized by feelings of sadness, hopelessness, helplessness, irritability, and/or changes in eating, sleeping, and thinking. Treatment for post-stroke depression may be necessary. Inform your doctor if you have any of these symptoms and take prescribed medications as indicated.

### **Psychological Causes:**

- Psychological causes are part of adjusting to the changes brought on by a stroke. These changes may include feelings of frustration, anxiety, anger, apathy, lack of motivation, and/or depression or sadness. Often by understanding the effects of stroke and acknowledging these feelings, one can begin to deal with the emotional changes. Address these issues with your doctor.

### **How Can I Cope with my Changing Emotions:**

- Do not judge your feelings as “good” or “bad.” Let yourself cope without feeling guilty about your emotions.
- Talk to people who understand what you’re going through such as other stroke survivors and health care professionals (for example: doctors, nurses, therapists, and social workers). Ask about a support group.
- Think of yourself in a positive way. Allow yourself to make mistakes. Give yourself credit for the progress you have made (large and small). Get enough exercise and seek enjoyable activities.
- Consult your doctor and, if needed, ask for a clinical evaluation and treatment for depression.

## **More Ways to Learn**

### **Visit the following Web Sites:**

- American Stroke Association: [www.strokeassociation.org](http://www.strokeassociation.org)
- National Institutes of Health: [www.nih.gov](http://www.nih.gov)
- National Library of Medicine: [www.nlm.nih.gov/medlineplus/stroke.html](http://www.nlm.nih.gov/medlineplus/stroke.html)
- Peninsula Stroke Association: [www.psastroke.org](http://www.psastroke.org)
- Stroke Net: [www.strokenetwork.org](http://www.strokenetwork.org)

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References: American Heart Association; American Stroke Association; Castillo-Richmond, et al. Effects of Stress Reduction on Carotid Atherosclerosis in Hypertensive American. *Stroke*. 2002; 341:568

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**Note:** This information is not meant to replace any information or personal medical advice which you get directly from your doctor(s). If you have any questions about this information, such as the risks or benefits of the treatment listed, please ask your doctor(s).