



# Stroke Shield

**Eliminate the cause of ALL  
strokes right at the source**



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## **Chapter 1:**

### **Introduction**

Every second a person dies as a result of stroke. Every year, there are around 800,000 persons who are affected by stroke. The only other conditions that are considered more dangerous than stroke are heart diseases and cancers. The aim of this e-book is to help the reader understand stroke, how it occurs, factors that contribute to the condition and the treatment options.

There are different types of strokes. This e-book seeks to help the reader understand them and how to diagnose them. The e-book recommends that the reader should consult a medical care practitioner if any signs of stroke are noted in their early stages. This improves the chances of diagnosis and treatment.

Blood clots in the brain are a risk factor that contributes to strokes. This e-book seeks to help the reader understand the various causes of blood clots in the brain and how to diagnose the condition. The Stroke Shield helps you to understand how to eliminate the various causes of stroke right from the source. After reading the e-book, you will be able to detect blood clots in any part of the body and protect yourself as well as your loved ones from the serious health condition. The e-book also touches on the various treatment options for blood clots in the brain.

The best way of treating stroke is through prevention. The Stroke Shield looks at the various ways of preventing stroke such as diet, exercising and lifestyle changes. Poor diet is one of the leading factors that contribute to stroke. By making some simple changes to your diet, you can reduce your chances of getting stroke by up to 80%. The e-book looks at various types of foods that cause stroke as well as real solutions that can

help to reduce the risk of the disease. It also touches on meals that can be used to treat the condition.

The benefits of exercises in minimizing the risk of stroke cannot be underestimated. The e-book also shows exercises that are recommended for the prevention of stroke. After you read this, you will be able to make simple changes to your lifestyle that will help you reduce your risk of stroke and other health conditions.

Despite the seriousness of stroke, many people do not have the necessary information to prevent, diagnose or even treat the condition. This leads to late diagnosis that can cause a permanent damage of the brain and can also be fatal. However, you do not have to become part of the statistics. Read this e-book carefully and ensure that you follow the advice in it. You will have a long and enjoyable life without the threat of stroke or other health conditions.

## **Chapter 2:**

### **It stroke me**

Stroke occurs as a result of a problem in the blood supply to the brain. This could be due to a blockage of the blood supply or the rupturing of the blood vessel within the brain. Stroke is a serious medical condition and treatment should be sought as fast as possible.

It is important to diagnose stroke quickly. The quicker the treatment is administered, the less the damage that will be caused to the brain. For a stroke patient to be properly diagnosed and treated, they need to be at the hospital within 3 hours of the first appearance of the symptoms.

#### **2.1 Signs and symptoms of stroke**

With stroke occurring quickly, the symptoms appear all of a sudden with no prior warning. Some of the key symptoms are:

- Confusion which can be marked by trouble talking or understanding
- Headache which can be accompanied by vomiting and altered consciousness
- Trouble seeing in one or both eyes
- Numbness of the arm, leg or face particularly on one side of the body
- Trouble walking which can include lack of coordination and dizziness

Strokes can result in major and long term problems. While this depends on how fast the condition is diagnosed and treated, strokes can cause permanent or temporary disability. Some of the other key symptoms of the condition include:

- Bowel or bladder control problem
- Depression
- Weakness or paralysis in one or both parts of the body
- Pain in the feet and hands that worsen with temperature change or movement

- Trouble expressing or controlling emotions.

## **2.2 Tests to diagnose stroke**

Since they occur quickly, diagnosis should be done before the patient sees the doctor.

The FAST acronym is commonly used to indicate an onset of stroke.

- **Face drooping.** When the affected person tries to smile, one side of the face may drop.
- **Arm weakness.** When the person tries to lift up both hands, one of them may drift downwards.
- **Speech difficulty.** The affected person may have strange or slurred speech
- **Time to make the call to 911.** When you observe any of the above signs, it is time to call 911!!!

## **2.3 Types of Stroke**

There are 3 main types of strokes. These are hemorrhagic strokes, ischemic strokes and transient ischemic attacks (TIAs) or mini strokes as they are commonly referred to.

### **2.3. a. Ischemic strokes**

This is the most common type of strokes with up to 85% of the conditions being this type. The stroke is caused by a narrowing or blockage of the arteries connecting to the brain causing ischemia, a condition marked by a severe reduction in the flow of blood. The blockages are usually caused by blood clots forming either in the arteries that connect to the brain. The blood clots can also be formed further away before they are swept into the brain's narrower arteries. One cause of clots is the fatty deposits known as plaques occurring within the arteries.



*Hypertension can cause a rupture of the blood vessel as well as hemorrhagic strokes.*

### **2.3. b. Hemorrhagic strokes**

The major cause of hemorrhagic strokes is a blood leakage or bursting open of the major arteries in the brain. The blood that leaks into the brain pressurizes the blood cells and end up damaging them. When they burst open, blood vessels can spill blood on the surface or middle of the brain. This causes the blood to remain in the space between the skull and the brain. Some of the conditions that can cause the rupture include trauma, blood thinning medications, hypertension and aneurysms. Aneurysm is a condition that is marked by a weakness of the walls of the blood vessels.

### **2.3. c. Transient ischemic attacks (TIA)**

This is a different type of stroke that is marked by a short disruption of the flow of blood to the brain. One similarity between this kind of stroke and the ischemic stroke is that they are both mostly caused by blood clots or other debris. TIAs ought to be treated like medical emergencies despite the fact that the blockage of the artery is temporal. This is

because they act as warning signs of future risks of strokes and they show a presence of source of clot or a partially blocked artery in the heart. Medical experts suggest that a third of the people who suffer from a TIA end up having a major stroke within one year if they don't receive urgent treatment.

Hemorrhagic and ischemic strokes require different types of treatment. The only way to determine the type of stroke that a person is suffering from is by conducting a brain scan. The doctor will want to find out about the medical history of the patient as well as the symptoms. The medical practitioner can check the blood pressure of the patient or listen to the neck's carotid arteries. The health care provider can also check for signs of clotting on the blood vessels located on the back of the eyes. Blood tests can also be conducted to determine how fast the blood of the patient clots, the levels of chemicals in the blood and whether the patient has an infection.

CT scans can be used to show strokes, hemorrhages, tumors and other conditions that may be present in the brain. MRI scans that uses magnets and radio waves can create an image of the brain to determine if there are any brain tissues that are damaged. Another test that can be carries out to determine if a patient has stroke is carotid ultrasound. This is an ultrasound scan that helps to check blood flow of carotid arteries and to confirm if there are any plaques present. Cerebral angiogram involves the injection of dyes into the blood vessels of the brain to ensure that they are visible under X-ray. Another test is Echocardiogram which creates a detailed image of the heart to see if there are any sources of clots that could travel to the brain to cause stroke.

## Chapter 3:

### Blood Clots in Brain

One of the common causes of blood clots in the brain is injury to the vessels in the area. Some of the symptoms of the condition include dizziness, speaking difficulty, headaches, lack of coordination and many others. These are an indication that you should seek immediate medical help. At times, the clots will form inside the small veins close to the surface of the skin leading to redness in the area, swelling and pain. It is rare for superficial phlebitis to cause complications and the need for treatment may be minimal. However, the deep vein thrombosis (blood clots forming inside the larger and deeper veins) may lead to widespread symptoms in the affected area such as the leg and can lead to more serious problems.

It is possible for the blood clot to move from their original source and cause damage on other parts of the body. They can move from the deep vein thrombosis to the lungs causing a blood clot in the lung known as pulmonary embolism. This can be life threatening. An irregular rhythm of the heart can cause blood clots to occur in one of the chambers of the heart. This can travel to the brain to cause a stroke. Blood clots arising in the heart's arteries may cause a blockage of the flow of blood through the artery and cause a heart attack. When blood clots arise in the carotid arteries, they may travel to the brain to cause stroke.

There are many serious conditions and factors that cause blood clot in the body. These include:

- Antiphospholipid syndrome
- Certain drugs such as hormone therapy drugs, oral contraceptives and some medications for breast cancer

- Arteriosclerosis/atherosclerosis
- Factor V Leiden
- Deep Vein thrombosis
- A history of blood clot in the brain
- Heart arrhythmias
- Heart attack
- Obesity
- Heart failure
- Polycythemia vera
- Peripheral artery disease
- Pregnancy
- Prolonged bed rest or sitting
- Smoking
- Pulmonary embolism
- Surgery
- Stroke

When the blood clot occurs in the brain, it can lead to Ischemic stroke. A blood clot in the brain can also lead to a buildup of carbon dioxide and waste as the brain becomes unable to properly clear the waste. This can lead to the death of the cells around the blockage and the neurons in that part may stop working. This can lead to damage occurring throughout the body. Immediate treatment is necessary for blood clots in the brain if life threatening conditions are to be prevented.

### **3.1 Causes of blood clots in the brain**

There are several causes of blood clots in the brain and these include:

#### **3.2a Head trauma or injury**

Injury to the head, brain or neck can lead to the formation of clots in the brain. When bleeding occurs between the brain and the skull, the body may form a blood clot to stop bleeding. This may put pressure on the surrounding tissues of the brain. Head trauma can also lead to the formation of blood clots in the brain leading to an ischemic stroke.

### **3.2b. Clots that travel from other parts of the body**

These can travel to a blood vessel leading to the brain causing a blockage that may cause a cerebral embolism or embolic stroke. The travelling clots can cause damage to the other parts of the body before getting to the brain.

### **3.2c. Narrowing/hardening of arteries**

Atherosclerosis is the narrowing and hardening of arteries and can increase the risk of a brain clot. When pumping blood, hardening arteries are at a risk of tearing and this can cause the formation of a clot in the damaged area to prevent a clot from leaking into the body. The clots may prevent the flow of blood to the narrowed arteries leading to a damage of the surrounding cells.

### **3.2d. Superficial vein's inflammation**

This can increase the risk of a blood clot. When a high trauma injury causes the damage of a vein, it can be inflamed. This kind of inflammation can also be caused by a bacterial infection occurring in the vein and reducing the flow of blood to the surrounding area. The damaged area will have a higher risk of leakage, resulting in a clot. When there is an inflammation in the area, the blood clot may cut off the supply of blood to the cells in the surrounding area.

### **3.2e. Use of oral contraceptives**

The use of oral contraceptives increases the risk of blood clotting. This is especially so for women who are aged over 35 and have a history of clots.

### **3.3 Symptoms of clots in the brain**

There are many symptoms of a blood clot in the brain. These include:

- Speaking difficulties. The person may begin to slow his or her words and have difficulties speaking. This is especially so for patients with a blood clot on the left part of the brain.
- Headaches. These usually occur on one part of the brain and can be worsened by sneezing or coughing. They also impair physical activity or the movement of the head.
- Confusion. Patients with a blood clot may take longer to think or they may feel as if their thinking capacity is not where it should be. They may feel confused or take longer to understand things.
- Personality change. Blood clots can alter the personality of the patient. He or she may become maniac. A person who is normally energetic may also feel subdued.
- Depression. When a person suddenly develops depression, he or she should be checked for a blood clot in the brain. When all portions of the brain do not get enough oxygen, a person may suffer from depression.
- Loss of coordination. A person with a blood clot may find it difficult to move in the same coordination they are used to. The person may be unable to transfer object from one hand to the other.
- Seizures. People with blood clots may suffer from seizures that may last for up to 2 minutes. When the seizures last longer, they may be a sign of more severe conditions.

- Paralysis. One part of the body may become paralyzed when a person has a blood clot. Some of the key areas affected by this include the face, arm and legs.
- Ischemic attack. This is referred to as a mini stroke and it causes a dysfunction of one part of the body. When the condition escalates, it can turn to a full stroke.

### **3.4. Treatment for clots in the brain**

If you show any signs of blood clot in the brain, it is important to consult a medical practitioner right away. A CT or MRI scan can be used to diagnose the blood clot as well as the condition that causes it. To dissolve the clot, an anti-coagulant like an aspirin can be used. Aspirins can also prevent the formation of new clots. Patients at a risk of hypertension should not use anti-coagulants as they can interfere with their regular medications. At times, medications prescribed by doctors can interact with other medications including OTC drugs and herbal remedies. This can worsen the side effect. It is important for you to inform your health care provider of any medications that you may be taking including natural remedies or vitamin supplements.

#### **Side effects of aspirin**

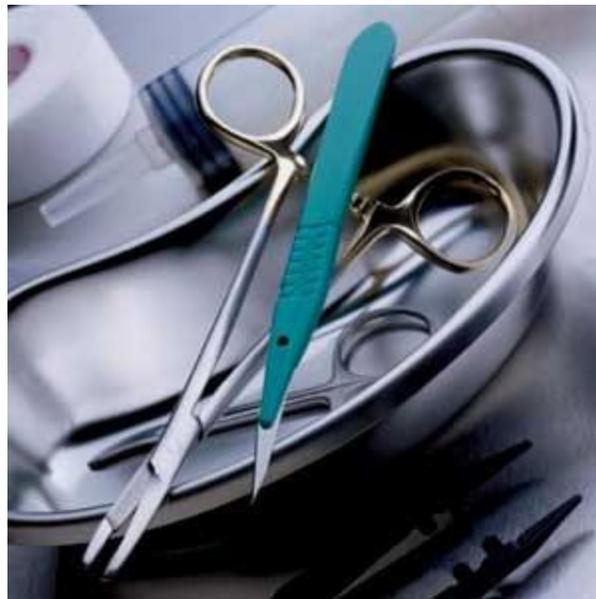
The side effects of Aspirin occur infrequently. These can include:

- Stomach/ duodenum ulcers which may cause gastrointestinal bleeding
- Nausea
- Abdominal pain
- Gastritis

At times aspirin can be toxic to the liver even though this is rare. Another rare but serious side effect of aspirin is intracranial hemorrhage. This is a bleeding that occurs in the brain tissues and it is similar to hemorrhagic stroke. In patients who already have kidney or liver diseases, aspirin can impair the function of the two organs. The serious side effects of aspirin such as bleeding ulcers and intracranial bleeding occur in less than 1% of the patients on the drug.

### 3.5 Surgery

In some cases, surgery may be used to remove the clot. To prevent additional injury, arteries can be opened and the plaque cleaned. If the patient is found to be at a risk of additional clot, a tissue plasminogen activator may be inserted into the vein. This will release the drugs that bust clogs into the brain from preventing a stroke.



## **Chapter 4:**

### **You are what you eat**

#### **4.1 No-no foods**

When it comes to strokes, prevention is the best option. Diet plays an important part in the prevention of stroke. There are five types of foods that have been linked to an increased risk of stroke. These include:

##### **4.1a Trans fats**

If you are keen about your health you should avoid any food that contain trans fats These include many processed or fried foods. Trans fats cause inflammation which is a hallmark of many serious diseases including heart diseases and stroke. With the risk of stroke increasing in middle aged women, women should particularly heed this advice as a major culprit is a poor choice of diet.

##### **4.1b Smoked and processed meats**

There are preservatives such as sodium nitrite and nitrate that are commonly found in smoked and processed meats and have been known to cause damage of the blood vessel. This increases the risk of stroke. On top of this, nitrates are usually converted into nitrosamines which are known to increase the risk of certain cancer. In one study on diet and cancer which was conducted by the World Cancer Research Fund, it was found that processed foods such as hot dogs, salami, bacon and other processed meat products may:

- Increase the risk of dietary diabetes by 50%
- Lower the functioning of the lungs
- Increase the risk of chronic obstructive pulmonary diseases (COPD)

Health experts suggest that these foods should be kept at a minimum. If you must eat the processed foods such as sausages, ham or bacon, follow these guidelines to reduce your risk.

- Choose uncured varieties with no nitrates
- Pick varieties with say 100% chicken or beef. This ensures that the meat has no by products such as chicken fat or skin.

- Select organic meats that are fed on grass
- Avoid meat containing preservatives or artificial colors/flavors
- Buy sausages from a local farmer who will guide you on the ingredients

### **4.1c Diet soda**

A recent research by the American Stroke Association concluded that a person who drinks one diet soda a day increases his or her risk of stroke by up to 41 percent. While there may be need for more research to confirm the potential risk of diet soda, there is enough evidence to prove that artificial sweeteners like sucralose and aspartame are dangerous to your health.

### **4.1d Vitamin D deficiency**

Vitamin D is the essential nutrient that is obtained from the sun. One research concluded that low levels of Vitamin D can double the risk of stroke in Caucasians. There are many benefits of vitamin D and these include improving the immune function, improved detoxification of mercury and significantly reducing the risk of cancer. A deficiency of Vitamin D is known to increase the risk of arterial stiffness which is a major cause of stroke. Other risks associated with a deficiency of vitamin D include:

- Increases the risk of diabetes by 50%
- Lowers the functioning of the lungs
- Increases the risk of chronic obstructive pulmonary disease

### **4.1e Salt**

Salt has been an important part of the world's history and its use dates back to the 6050 BC. The product has been used in different historic civilizations. In one of its earliest recorded use, it was used as part of the Egyptian religious offerings and was an important part of the trade between the Phoenicians and the Mediterranean empire. Many cultures and races put a great importance on salt. In fact the word "salary" is derived from the word "salt". Not only was salt highly valued but there were restrictions in its production in ancient times.

### **4.2 Why salt is bad for health**

A major factor that contributes to cardiovascular diseases is raised blood pressure. In fact, it is estimated that it causes 62 percent of strokes and 49 percent of coronary heart conditions. Salt is

one of the factors that contribute to an increased blood pressure and is therefore a major cause of heart attacks and strokes.



## Chapter 5:

### Measures to prevent stroke

As at now, you already know how dangerous stroke is. However, the good news is that up to 80% of stroke can be prevented. Therefore, you have a lot of influence on whether you become part of the statistics or not. On top of avoiding processed foods such as diet soda, processed and smoked meats or increasing your intake of vitamin D, there are several things that you can do to lower your risk of stroke. As a matter of facts, the same risk factors for heart diseases can increase the risk of stroke. Some of these factors include:

- Obesity
- High blood pressure
- Low HDL levels and high LDL levels
- Smoking
- Elevated levels of homocysteine and triglyceride

Therefore, like it is the case with the heart, improving your diet, exercising and maintaining a healthy weight can help to reduce your risk of stroke. Some of the ways of reining in your risk of stroke include:

#### 5.1a Lower blood pressure

If not controlled, high blood pressure (HBP) can double or even triple your risk of stroke. In both men and women, HBP is the biggest cause of stroke. The biggest step that you can make to control stroke is to monitor your blood pressure and treat it if elevated. Medical experts suggest that you should maintain a blood pressure of between 80 and 120. To maintain this number, you should:

- Reduce your intake of salt in your diet to not more than 1,500 mg per day.
- Avoid foods that contain high levels of cholesterol
- Eat between 4 and 5 cups of fruits and vegetable, fish between 2 and 3 times in a week and several low fat dairy and whole grain servings.
- Exercise for a period of around 30 minutes in a day

- Stop smoking

If you find it necessary, you should take blood pressure drugs.

### **5.1b Lose weight**

Obesity with its accompanying complications such as diabetes and high blood pressure increases the risk of stroke. If you suffer from obesity or are overweight, losing around 10pounds can reduce your risk of stroke. You should aim to keep your body mass at below 25.

You can achieve this by:

- Avoid or limit trans fats as well as saturated fats
- Avoid eating more than 1,500 to 2,000 calories in a day.
- Exercise more through golfing, walking or playing tennis

### **5.1c Exercise more**

Exercises not only lower the blood pressure but it helps in the loss of weight. Exercising is also a good way of reducing the risk of stroke. In one study that was conducted in 2012, it was noted that women who walked for 3 hours in a week had lower chances of suffering from stroke as compared to those who didn't walk. Some of the exercises that you can engage in include:

- Taking a walk in the neighborhood every day after breakfast
- Joining a fitness club
- Ensuring that you reach the level where you breath most while exercising but you can still talk
- Using the staircase rather than the elevator
- If you can't exercise for 30 consecutive minutes, you can break the workouts in sessions lasting for 10 to 15 minutes.

Physical activity is a great way of reducing the risk of stroke. Higher rates of strokes have been noted in areas where obesity is common such as the southeastern states of the Unites States

### **5.1d Drink in moderation**

Studies suggest that drinking in moderation can reduce the risk of stroke. Experts suggest that you should not take more than one drink in a day. Taking more than this can increase your risk of alcoholism. You can drink in a responsible way by:

- Having a glass of alcohol in a day
- Drinking red wine as it contains resveratrol, which is believed to be good for the heart and brain
- Watching your sizes of portion

### **5.1e Use baby aspirin**

One study showed that women who are aged over 65 can reduce their risk of stroke by taking baby aspirin. This helps to prevent the formation of blood clots. However, you should talk to your health care provider to ensure that aspirin is right for you. People with bleeding disorders should decrease their dosage of aspirins or avoid it altogether.

### **5.1f Treat atrial fibrillation**

Atrial fibrillation is a type of irregular heartbeat that leads to the formation of clots in the heart. The clots can travel to the brain causing stroke. The condition increases the risk of stroke by five times. Therefore, if you suffer from atrial fibrillation, you should have it treated. Check out for measures such as shortness of breath or heart palpitations and see a doctor immediately. Blood thinners such as warfarin or high dose aspirin can reduce the risk of stroke as a result of atrial fibrillation.

### **5.1g Treat diabetes**

High blood pressure tends to damage blood vessels over time and this increases the risk of the formation of blood clots. Therefore, you should treat blood pressure. You can use exercise, diet and medication to keep the blood pressure in the range that is recommended.

## **5.1h Stop smoking**

Smoking tends to accelerate the formation of clots in various ways. Not only does it thicken the blood but it also enhances the buildup of plaques in the arteries. Quitting smoking together with a healthy diet and exercising is a powerful change in lifestyle that can help to reduce the risk of stroke. You can talk to your doctor on the most appropriate way of quitting smoking. You can also use quit smoking aids such as nicotine patches and pills. Do not give up as most smokers take time before they can quit.

## **5.1i Maintain a healthy diet**

A diet that has low calories, cholesterol, Tran's fats and saturated fats can help to manage cholesterol and obesity levels in the blood and this can help reduce the risk of stroke. Diets that contain a lot of salts can also contribute to high blood pressure. Include at least 5 servings of fruits and vegetables in your diet.

## **5.1j Fruits and vegetables**

In a recent study by the Harvard University, it was noted that eating 5 daily servings of fruits and vegetables can reduce the risk of stroke by up to 30%. Some of the beneficial fruits and veggies include broccoli and cauliflower. These contain high concentrations of potassium, fiber and folic acid and these are key in reducing stroke and heart diseases. Unfortunately, most people eat around half of the recommended servings of fruits and vegetables. It can be easy to increase this daily intake by:

- Drinking a glass of vegetable or orange juice
- Using a variety of spices and herbs in vegetables to add flavor
- Buying pre-sliced fruits or vegetables for easy snacking
- Use grated vegetables on casseroles, meat patties and spaghetti source

## 5.1k Cook low fat foods

Cooking and eating foods that have low fats (with no trans or saturated fats) can reduce the body weight as well as decrease the risk of heart attack and stroke. Take time to consider your choices of foods and how to cook them. For instance, you can choose to grill a piece of chicken instead of frying it in oil to reduce the intake of fat and to produce a tasty and healthy meal.

Some of the meals that you should add in your diet include:

- Fruits and veggies
- Lean meats like fish, turkey and chicken
- Lean cuts of beef
- Dairy products that are low in fat such as skim milk
- Fiber such as whole grain breads, dried beans and cereal products

Too much cholesterol can increase the risk of heart diseases and stroke. High cholesterol in the blood can be as a result of the amount of cholesterol that the body makes and the amount of cholesterol that is in the food you eat. A key source of cholesterol is diets that have high saturated fats. Saturated fats are usually solid at room temperature and are commonly found in animal products such as cheese, meat, egg yolks, ice cream and butter. Saturated fats may also be present in some vegetable oils such as coconut, palm and palm kernel. In order to prevent the risk of stroke, you should reduce the amount of saturated fats that you eat.

Diets that have high level of trans fats also increase cholesterol levels and are associated with cardiovascular diseases. Trans fats usually form when an unsaturated vegetable oil undergoes hydrogenation that turns it into a more saturated fat. You should avoid foods containing vegetable oil that is partially hydrogenated. Some of the foods that contain trans fats include:

- Anything that has partially hydrogenated fats such as fried snacks, crackers, cookies and baked products.
- Vegetable shortening
- Stick margarine
- Most fried foods

Reducing your intake of cholesterol is an important step in stroke management. This can be achieved by:

- Removing poultry skin and trimming the visible fats from meats
- Reducing your frequency of eating poultry, meats and other foods derived from animals
- Cutting your portion size of meat to less than three ounces
- Eliminating lard
- Limiting butter
- Using low fat or nonfat dairy foods

### **5.11 Reducing the amount of sodium in your diet**

Medical experts suggest that most Americans take more sodium than they need. Eating more sodium than is necessary can cause the body to retain fluids. It can also increase the blood pressure. One of the best ways of cutting down on the use of sodium is avoiding adding salt on food that is on the table. Other tips to cut down on the use of sodium include:

- Using spices and herbs instead of table salt
- Eating less canned and processed foods. Sodium is used to add flavor as well as preserve food
- Use fresh ingredients as well as foods that have no added salt where possible
- Make the right choice of snack food. Snacks such as peanuts, potato chips, crackers and pretzels have high amounts of sodium
- Check the amount of sodium in stomach medication and cold headache

On top of these lifestyle changes, a medical practitioner can help to reduce the risk of stroke by prescribing anti-platelet and anti-coagulant medication. Arterial surgery can also be used to lower the risk of repeat stroke.

## 5.2 Real solutions

Studies suggest that the best way of enjoying the benefits of a healthy diet is to increase your intake of fruits and vegetables. It is recommended that you should take at least 5 servings of each in a day. One vegetable serving is equal to;

- A cup of raw vegetables
- ½ a cup of cooked vegetables
- 6 ounces of vegetable juice

One fruit serving is equal to:

- A medium sized piece of fruit
- ½ a cup of fruit juice cocktail
- One cup of diced berries or melon
- Two tablespoon of dried fruits
- Four ounces of 100 percent fruit juice
- ¼ inch of banana

One of the greatest ways of learning of the foods that you are eating is by reading the food labels. If you would like to select foods that lower your risk of stroke you should consider the levels of total fat, calories, trans fats, saturated fats, cholesterol, Sodium and dietary fibers.

## 5.3 The dos and don'ts

Medical experts agree that a step wise approach to lower your risk of stroke is to reduce your fat intake. They recommend that this should be lowered to 30 percent of your total energy. This should then be decreased to 25% or even 20%. You can seek the help of a dietician.

### 5.3a. The do's

Ensure that you buy foods that have a fat content of less than 3g per 100g.

#### >Nuts, fats and oils

- Limit your intake of fats to 40-70g. This is an amount of 3-4 tablespoon per day.
- Choose the following nuts, fats and oils. Sunflower, olive, canola and soya oils

- Almonds, hazelnuts, pecan and peanuts in moderation
- Soft margarines and non stick vegetable sprays

#### **>Meat, poultry and fish**

- Choose lean cuts only
- Limit your portion sizes to between 90and 120g per day. This should be around the size of the palm
- Eat fish around twice in a week
- Remove the skin from the chicken
- You can take shellfish but avoid shrimps, prawns and caviar. Tinned fish should be in brine or water

#### **>Dry beans and lentils**

- All types of beans, peas and lentils
- You can take baked beans and other kinds of tinned beans

#### **>Eggs**

- Eat a maximum of 3 egg yolks in a week
- If you eat eggs, reduce your intake of other foods that contain cholesterol

#### **>Milk & Milk products**

- Choose low fat as well as skim milk
- Drink fat free or low fat yoghurt
- Fat free or low fat cottage cheese
- Low fat buttermilk

#### **>Bread and cereals**

- Whole-wheat and brown bread
- High fiber breakfast cereals
- Oats, maize meal and oat bran
- Pasta and rice

### >Fruits and vegetables

- Eat around 5 portion of fruits and vegetable
- Choose fresh fruits rather than fruit juice
- Eat olives and avocados in moderation

### >Beverages

- Coffee or tea without sugar
- Diet cold drinks and sugar free squash
- Minimize your drinking of fruit juice
- Do not drink more than 2 drinks in a day if you drink alcohol. If you are overweight or have high blood pressure, avoid drinking.

### >Desserts

- Choose skim milk, fresh juice, jelly and custard
- Low fat or fat free yoghurt, fruit yoghurt, fruit ices

## 5.3b.The don'ts

### >Oils and fats

- Butter
- Brick cooking fats and hard brick margarine
- Coconut or biscuits with coconut
- Mayonnaise

### >Meat, poultry and fish

- Fatty pork, beef and mutton
- Processed meat like boloney and salami
- Organic mat like liver, offal and kidneys
- Tinned pies and meat
- Takeaways such as hamburgers and fried chickens
- Deep fried foods

### >Milk & milk products

- Condensed milk
- Full cream milk
- Artificial cream, cream, tea and coffee
- Full fat cheese
- Full fat yoghurt and ice creams

### >Breads and cereals

- Breakfast cereals that are refined
- White bread and rolls
- Salted savory snacks containing high fat
- Cakes, biscuits, chocolate, pudding, fudge etc.
- Crisps and Corn crisps

## 5.4 The way you prepare food

The method you use to prepare meat can help to decrease its fat content considerably. Grilling or frying in a non-stick pan with little or no oil will help save a lot of fat. Stewing or boiling meat dishes a day before serving. Allow the stew to cool completely and remove the fat layer that collects at the top of the liquid. For roasted meat, use a little oil to coat the container's bottom and allow the meat to cook at lower temperature. When roasting of the meat is done, drain the fat that collects at the bottom of the pan and throw it away. Have a large bottle in the kitchen to collect the fat that is produced by roasts and get rid of the fat. This will not only prevent your drain from getting clogged but it will spare your arteries as well as those of your family members.

## 5.5 Foods that can help reduce the risk of stroke

On top of the fruits and vegetables, there are certain foods that are effective in reducing the risk of stroke. These include:

### **5.5a. Fibers**

Fibers are good in reducing the levels of cholesterol and the overall risk of cardiovascular diseases. Dietary fibers are not digested by the body and it affects the way the body digests foods and absorbs nutrients. The amount of fibers that you eat also has other benefits such as helping to control the blood sugar levels, preventing gastrointestinal diseases and helping to reduce weight. Some of the measures that you can use to increase your fiber intake include:

- Taking whole grain cereals or toast for breakfast
- Take a whole piece of fruit instead of fruit juice
- Choose brown rice and whole wheat pasta instead of the white varieties
- Top cottage or yoghurt cheese with nuts or fresh fruits
- Eat fruits, vegetables or a granola bar as a healthy snack

### **5.5b. Mackerel**

Oily fish like mackerel is known to be rich in omega 3 essential fatty acids which are effective in lowering cholesterol levels and reducing the risk of clogged arteries, heart attacks and stroke. Some of the key sources of the healthy fats are the fresh fish like salmon, mackerel, trout, tuna and herring.

### **5.5c. Olive oil**

Olive oil is known for its health benefits as it enables the blood to continue flowing smoothly. Monounsaturated fats such as the olive oil can help to lower the levels of bad cholesterol in the blood. This is the type of cholesterol that is responsible for causing stroke.

### **5.5d. Broccoli**

This green stuff is known to be full of folic acid, which is a B vitamin that is responsible for lowering the homocysteine levels in the body. Homocysteine is responsible for causing the first stage of the furring of arteries and therefore, you do not need it in your blood. Avoid over-boiling your broccoli as it will kill the nutrients.

#### **5.5e. Oranges**

Oranges contain vitamin C, an antioxidant that help to scavenge and destroy the harmful molecules referred to as free radicals that damage the arteries lining increasing the risk of stroke.

#### **5.5f. Pears**

Pears are rich in soluble fibers that help to soak up the cholesterol in the blood and transport it away.

#### **5.5g. Chicken**

Poached or grilled chicken is a great source of low fats fibers. While proteins are important, you do not need them from, high sources of fats such as burgers and sausages. Taking too much of these can cause stroke and heart attacks. Turkey is also a great source of low fat protein.

#### **5.5h. Carrots**

Carrots are a great source of beta carotene which is an antioxidant that helps to prevent oxidative damage to the arteries causes by the harmful free radicals. Studies have suggested that a high antioxidant diet can lower the risk of stroke.

#### **5.5i. Garlic**

Garlic has a chemical known as allicin that makes the blood less sticky and therefore, less likely to clot and cause a stroke. Onions and garlic also help to keep the blood lipid and the levels of cholesterol low.

## Chapter 6:

### Easy plan

#### 6.1 Exercise to prevent stroke

Exercises play a key role in the body. Exercises can help to lower the blood pressure which is a key factor for stroke. Through exercise, you can control other things that enhance your risk of stroke such as high cholesterol, diabetes and obesity. You should exercise regularly. Engage in activities that will raise the heart rate. Do at least 2 and a half hours of moderate to vigorous exercises in a week. You can achieve this by being active for thirty minutes in a day and at least 5 days in a week. You opt to work in 10 minute session throughout the day. It is advisable to start slowly before building up your exercise program.

For people who have suffered from TIAs or stroke in the past and can still exercise, medical experts recommend that they should engage in 30 and 90 minutes of moderate exercises in a week. You can achieve this by being active for 30 minutes in a day for between 1 and 3 days in a week. While moderate exercises are safe for people suffering from different condition, it is always advisable to talk to your doctor before embarking on an exercise regimen.

Low-intensity exercises can also be helpful if done daily. These can lower the risk of cardiovascular diseases that can lead to stroke. Some of the low intensity activities that you can engage include:

- Walking
- Doing house chores
- Dancing
- Gardening and other duties in your yard

##### 6.1a Effects of aerobic exercises

Aerobic exercises not only deepen your breathing but they also increase the heart rate. They do this by activating the large muscles in the arms, legs and hips. In the short term, aerobic activity help to increase the flow of blood that is rich in oxygen to the body. At the same time, it helps to

increase the flow of oxygen depleted blood from the body to the lungs. People who engage in aerobic exercises regularly enjoy some long term benefits such as the strengthening of their heart, a reduction in their normal heart rate and increased efficiency in their pumping. Aerobic exercises are also good in decreasing your risk of stroke.

### **6.1b.Moderate-intensity exercises**

Medical experts suggest that in order to prevent stroke, you should engage in around 30 minutes of moderate-intensity exercises for a period of 4 days in a week. Some of the sport activities and exercises that are categorized as moderate activity include bicycling on a flat ground, brisk walking, and doubles tennis and water aerobics. You can also engage in a moderate intensity exercise by cutting the grass in your yard. These types of activities help to increase your heart rate. They also makes you sweat while allowing you to engage in a less normal conversation.

Exercising regularly will help you control your blood pressure, cholesterol level and body weight. When combined with a diet that emphasize on fruits and vegetables and reducing on saturated fats and sodium, you will be able to prevent stroke. Before beginning your exercise regimen, consult your health care provider to learn which activities can work best for your circumstances.

### **6.2 Managing stress**

Stress is a big risk factor for stroke and heart diseases. Although it is not yet clear how stress contributes to the condition, there are suggestions that people who are exposed to stress may have higher chances of suffering from high blood pressure or increased cholesterol. Medical experts also suggest that people who are stressed may be prone the narrowing of the arteries (atherosclerosis). Therefore, no matter how busy you are, it is important to keep stress under control. Some of the strategies that you can use to do so include:

- Stretch away tension. A major sign of stress is the tension of the muscles in the jaw and neck. Look for a quiet spot where you can sit or stand with your eyes closed for around two minutes. Move your head from the front to back, one side to the other and in a full

circle. Stretch the mouth open and slowly move the lower jaw from one side to the other. If you feel pain when conducting this activity or if you have suffered from injuries on the neck, back and jaw. Consult your health care provider.

- Take a walk. Physical activity is good in relieving stress. When you walk, you energize your body and spirit. A 10 minutes walk is enough to lower your stress levels. In order to add some social time to your walk, ask a friend to accompany you.
- Meditate. There are various meditation techniques that are good in relieving stress. However, they all involve concentration and slow deep breathing. You can begin your meditation by looking for a private room, closing the door and sitting on a chair. Gaze on the floor or close your eyes. Relax your jaws and shoulders. Place your hands gently on the belly and breath in heavily until your hands lift. Breathe out slowly but deeply for a period of around 3 minutes while allowing your thoughts to come and go freely. Instead of trying to control them, witness them without making any judgment. To get out of the deep breathing lift up your gaze or open your eyes. Stand up, stretch your arms over the head and shake your legs and arms.
- Seek professional help. You can see a counselor to help you deal with your stress. Talk to the health care provider about your family issues or work related issues. If your source of stress is work related, you can try talking to your boss. If you feel your workload is out of control, you can talk to your manager about developing a bit of flexibility in your job demands. However, it is important to be polite and use a logical but firm approach. For instance, you can ask for a slight adjustment in your workload.
- Do something big. You may believe that you do better while under pressure but are you looking for a reason to procrastinate. Putting things off can add to your stress. Therefore, make time to start on a project that has been looming.

## **Chapter 7:**

### **Conclusion**

It is without doubt that stroke is a serious health condition that may alter your life forever more. Not only can it cause disability but it is also a leading cause of death. One thing that comes out clearly from this e-book is that it is possible to prevent the devastating condition by making some simple changes to your lifestyle. When combined with exercises, making changes to your diet can reduce your risk of stroke by up to 80%.

If you are suffering from stroke or even a mini stroke it is important to consult a doctor as fast as possible as emergency medical attention can save your life. It can also reduce the risk of permanent brain damage. By reading and putting the advice in this e-book into practice, you will be able to reduce your risk of stroke by a high percentage.

Despite its high prevalence nowadays, most people do not know the symptoms, diagnosis and treatment of stroke. For proper management of the condition, an early diagnosis is necessary. This can prevent serious health conditions such as brain damage, permanent disability or even death.

This e-book has all the details that you need to know in regard to stroke. It includes how to prevent the condition by making some simple lifestyle changes, how to look out for the condition and when you should seek immediate treatment. If you would like to protect yourself or your family from this serious health condition, this e-book is a must read.

