LIFE AFTER A STROKE
GUIDANCE BOOKLET FOR
THE INJURED AND THEIR FAMILIES
About the Association

The Neeman Association for Stroke Survivors was established with the purpose to serve as a community mainstay for the special needs of stroke patients and their families, to increase awareness to the disease and ways to prevent it, and to influence decision makers in the fields of health, welfare and nursing.

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We invite everyone who has the willingness and ability to join our volunteers in promoting the Association's purposes and activities - and thus contribute to improving everyone's quality of life. Even if you are currently unable to join the Association's activities, we would really appreciate it if you express your support by joining the “Friends of Neeman” and back up our efforts and activities. We wish you a successful journey back to happiness and health.

- By credit card or credit card standing order - through the Neeman website: www.neeman.org.il
- By check to the “Neeman Association for Stroke Survivors”. Send the check to:
  Neeman Association, 7 Eted Street, Neve Savyon, Or Yehuda. Zip code: 60415
- Bank transfer to the Association's bank account - Neeman Association, Bank Leumi, Neve Sha'anan Branch, 882. Address: 36 Neve Hagilboa Street, Haifa. Account number: 422113/39
- By telephone: 03-5331566
DEAR READERS,

This booklet attempts to fill in the vacuum and assist you in these difficult times.

These are times of complex decisions, searching for sources of information, a desire to ask questions and be assisted, and difficulty to understand what you are facing and what the future holds. This is a time of enlisting abilities and mental resources to the limit.

Our purpose is not to provide solutions, but rather to try and assist each one of you a little, based on our extensive experience.

Many experience the horrors of this dreadful disease. Unfortunately, over 15,000 new stroke patients are reported in Israel every year, about 1/3 under the age of 65. The disability, difficulties, loss of independence, and changes in lifestyle and concepts - definitely pose some challenges.

The main purpose of this booklet is to bring about the understanding that you are not alone.

The Neeman Association for Stroke Survivors has the following objectives:

1. Improving the quality of life of stroke patients and their families.
2. Increasing public awareness to risk factors and to the ways to prevent a stroke.
3. Establishing a strong entity that can influence decision makers in this field.

We owe special thanks to the neurological nurses of the Rambam Medical Center, who together with the ward's physicians and multidisciplinary staff assisted in establishing a database for this booklet, contributing their thought and wisdom with the purpose of helping every stroke patient.

We thank from the bottom of our hearts everyone who has made possible the publication of this booklet:
WHAT IS A STROKE?

The brain needs constant blood supply for its proper operation. A stroke occurs as a result of a sudden interruption in the supply of blood and oxygen to some of the brain tissue and nerve cells, which leads to tissue destruction and brain function damage. From the moment nerve cells are injured, a “chain reaction” begins causing the death of these cells and even cells surrounding the injured area.

The function of brain cells is to perceive, process and interpret input and control body motions. When brain tissue is damaged, the function of the body part controlled by these cells is damaged. This damage can lead to such conditions as difficulty speaking, impaired walking, weakness in one side of the body, impaired vision or memory loss. Without fast treatment, the damage caused by the stroke can become permanent and irreversible and even end in the patient's death.

Sometimes the stroke can be a transient ischemic attack that only lasts a few minutes. Its symptoms are identical to those of a stroke, but are reversible, and the neurological phenomena disappear after a short period. About 10% to 15% of those suffering such attack are expected to experience a full-blown stroke within 90 days. The first days after the transient attack are the most dangerous, and therefore the patient should go to a hospital as soon as possible for testing and treatment.

Stroke is the third most frequent cause of death in the Western world (after heart disease and cancer), and is responsible for about 20% of all deaths in old age. Strokes are the most common reason for neurological damage leading to permanent handicap. In Israel, 13,000 to 15,000 people suffer a stroke every year. The frequency is equal for both genders, but women tend to experience worse damage. Stroke is gradually becoming the hazard of the 21st century, with the age of victims getting younger and younger.

Fighting the stroke is possible and essential – reducing its damage, improving the patients' quality of life, assisting family members who are burdened with the heavy, complicated load of caring for the sufferer, and preventing the next stroke.
WHAT CAUSES A STROKE?

1. STROKE AS A RESULT OF AN INFARCTION (ALCHEMIC STROKE)

Most strokes (85%) are caused by an infarction in the brain's blood vessels. The most common cause of an infarction in blood vessels is arteriosclerosis. Another cause is a blood clot or other substance released from an artery wall outside of the brain or heart, carried to the brain and blocking vital blood vessels. This phenomenon is called an embolism. When the blood clot settles in the blood vessel and blocks the passage of oxygen to the brain, brain tissue is damaged and a cerebral infarction occurs.

2. STROKE DUE TO A HEMORRHAGE

A. Cerebral hemorrhage resulting from aneurysm leakage. An aneurysm is a balloon-like bulge or pocket in the arterial wall that becomes thin and stretched. When an aneurysm is torn, a hemorrhage between the brain and its membranes known as a subarachnoid hemorrhage occurs.

B. Cerebral hemorrhage. When a blood vessel bursts inside brain tissue and blood leaks into the tissue, which damages it and leads to cell death. Additionally, nerve cells around the hemorrhage area are not provided with normal blood supply and are damaged too. The most common cause of brain hemorrhage is hypertension.

Sometimes aneurysms can be identified before a hemorrhage occurs. A sudden, unexplained headache can be a sign of a hemorrhagic stroke.
THE BRAIN HAS THREE MAIN PARTS: THE CEREBRUM, CEREBELLUM AND BRAINSTEM.

1. The cerebrum

   The cerebrum is made up of two parts (hemispheres).
   Although they look similar, each hemisphere monitors different functions.
   The left hemisphere mainly monitors language and speech, logical thinking and intellectual functions.
   The right hemisphere monitors emotional reactions, creativity, imagination, musical ability, information analysis, understanding and spatial perception.

2. The cerebellum

   The cerebellum is largely responsible for motion coordination. It also monitors fine motor skills, balance, the person's sense of position and more.

3. The brainstem

   The brainstem is made up of three parts: the midbrain, pons ans medulla.
   The brainstem contains centers responsible for regulating blood pressure, heart function, body temperature and consciousness. It contains sensory and motor tracts and serves as a center for visual and audio reflexes.
BLOOD VESSELS IN THE BRAIN

BLOOD SUPPLY TO THE BRAIN IS ACHIEVED BY TWO MAIN FLOW SYSTEMS:

• Front flow system – internal carotid arteries
• Back flow system – vertebro basilar arteries

The carotid arteries supply blood to the front part of the brain. The back arteries mainly supply blood to the brainstem and back part of the cerebrum and cerebellum.

The consequences of a stroke can be mild or severe, temporary or permanent.

Please note that the severity of the stroke is determined to a large extent by:

1. The location of the injury.
2. The extent of the injury (size of injured tissue).
3. The effectiveness of the body's ability to repair the brain's blood supply system.
4. The speed at which other areas of the brain can assume the injured cells' functions.
5. Identification of the early signs of the stroke, and the quality and speed of medical treatment provided to the patient.
WHAT ARE THE SIGNS OF A STROKE?

- Sudden weakness or paralysis of the arm, leg or face on one side of the body
- Paresthesia or impaired sensation in the limbs (such as an arm or leg feeling numb)
- Sudden impaired speech or understanding (confusion)
- Facial muscle spasms
- Sudden impaired balance and instability
- Sudden impaired vision, double vision, blurred vision and fogginess
- Sudden, unusual intense headaches

Sometimes the symptoms of a stroke are difficult to recognize. Unfortunately, lack of knowledge and alertness can lead to a tragedy that could be prevented or reduced.

THREE SIMPLE QUESTIONS CAN ASSIST IN IDENTIFYING A STROKE:

Speak: ask the patient to say “Peter Piper picked a peck of pickled peppers”. Was he/she able to control the speed of speech with the words clearly pronounced?

Smile: ask the patient to smile. Can he/she control the smile, or is the mouth crooked?

Raise: ask the patient to raise both arms. Was he/she able to raise both at the same time and in a coordinated manner?

IF ANY ONE OR MORE OF THESE SIGNS IS OBSERVED, EVEN TRANSIENTLY, OR IF THE ANSWER TO ONE OF THESE QUESTIONS IS NEGATIVE, THIS IS A SIGN OF A STROKE.

DO NOT POSTPONE, HESITATE OR WAIT. GO URGENTLY AND IMMEDIATELY TO THE NEAREST HOSPITAL.

The window of opportunities for optimum treatment only lasts 4.5 hours. Therefore going to a hospital immediately is mandatory. After diagnosis, these patients will be treated with a blood clot solvent through intravenous administration, or alternatively, in special cases, an urgent catheterization of the blocked blood vessel. These treatments can save lives and prevent handicap. They increase by 30-50 percent the patient's chances of remaining with no disability or with a negligible one.
RISK FACTORS THAT CAN LEAD TO A STROKE

WHAT ARE THE RISK FACTORS OF A STROKE?

• **Hypertension**
  
The most important risk factor of a stroke (70% of those suffering from a stroke have hypertension). Hypertension has no symptoms, and can only be identified by measuring blood pressure by the doctor or at home. The higher the blood pressure - the higher the risk to suffer a stroke, and the opposite is also true: a reduction of 6 mm mercury in the value of diastolic blood pressure leads to as much as 40% reduction in the risk to suffer a stroke. Regular measurement of blood pressure values and strictly balancing it (especially in those with obesity, diabetes, alcohol consumption, no physical activity or familial tendency to hypertension) are critical to the prevention of strokes. The recommended blood pressure is 70-130/80-120.

• **Diabetes**
  
Strokes are 4 times more common in diabetes patients (whether type 1 or 2) compared to the general population. This disease can begin with no significant symptoms, but can be identified by a simple blood test at the HMO. Unbalanced diabetes can lead to blockage of small blood vessels in various body parts such as the intestines and kidneys, as well as to blockage of the brain's blood vessels resulting in a stroke.

• **High blood fat levels**
  
It is particularly important to maintain low levels of “bad cholesterol” (LDL) and high levels of “good cholesterol” (HDL). It is important to ensure the total blood cholesterol level does not exceed 190 mg per deciliter. The recommended LDL limit is 100 mg / dl for healthy people, less than that for those with risk factors, and less than 70 mg / dl for those who have had a catheterization, heart attack or stroke.

• **Arrhythmias (Atrial fibrillation)**
  
Atrial fibrillation is the most common arrhythmia, and its frequency increases with age. It usually develops in patients suffering from other heart conditions (such as heart failure, heart valve disease or coronary atherosclerosis). The arrhythmia slows down blood flow between the atriums and ventricles. Blood that flows abnormally tends to coagulate and cause blood clots that can be carried with the blood to the brain causing an embolic stroke. Patients suffering from atrial fibrillation have 5-6 times higher risk of experiencing a stroke compared to those with a normal heart rate. The fibrillation can be diagnosed with various non-invasive tests such as EKG. Treating arrhythmia and the use of anticoagulants can reduce the risk of a stroke by 70%.
• **Smoking**

Smoking is a catalyst for the development of arteriosclerosis and for increased levels of coagulation factors in the blood. It also advances the damage caused to the blood vessel walls in the brain.

• **Excessive alcohol consumption**

Excessive drinking is a risk factor of an ischemic stroke as well as cerebral hemorrhage, but consuming alcohol – particularly red wine – in small amounts can protect against an ischemic stroke.

• **Obesity**

The risk to suffer a stroke is increased in obese people. The highest risk is experienced by those who tend to be overweight in the center of their bodies, known as “abdominal obesity”. Medical research has discovered that some of the risk factors are interrelated: obesity leads to high levels of blood fat, hypertension and insulin resistance – leading to the development of adult (type 2) diabetes. These phenomena are known as “metabolic syndrome”.

On the other hand, losing only 5% to 10% of one's body weight can lead to 30% reduction in abdominal fat, resulting in significant improvement in the person's risk profile as to suffering from cardiovascular disease.
MEDICATIONS AND TREATMENTS FOR THE PREVENTION OF A FIRST OR REPEAT STROKE

1 OUT OF 5 STROKE SUFFERERS ARE AT RISK OF A REPEAT STROKE WITHIN 3 MONTHS. THEREFORE PREVENTING A REPEAT STROKE IS EXTREMELY IMPORTANT.

• Medications for acute treatment (TPA)
  A tissue plasminogen activator assists in disintegrating a blood clot and is administered in the event of myocardial infarction. This treatment can only be administered within the first 4.5 hours after the beginning of the stroke, after discounting the possibility of cerebral hemorrhage with a CT. The treatment requires hospitalization at a neurological ward and medical supervision. It reduces the chances of disability and handicap in people who have suffered a stroke.

• Treatments for the prevention of blood clot formation and for reducing the risk of a stroke
  Antiplatelet and anticoagulant therapy ("blood thinners") assist in reducing the risk of a stroke by preventing blood coagulation. As part of the treatment program, the doctor will address other factors that can affect the treatment and its outcome, such as: blood pressure, high cholesterol, diabetes, earlier stroke, obesity, smoking, etc. Therefore he will adjust the treatment to suit the patient's personal circumstances. If the medications make you feel unwell, you should contact your doctor to determine whether the treatments interfere with each other or if any reactions are occurring between drugs.

• Oral anticoagulants
  Vitamin K antagonists, such as Coumadin – Warfarin and Sintrom. There are four essential coagulation factors (proteins) in the body that depend on vitamin K to permit the blood to coagulate. Vitamin K antagonists inhibit the formation of these factors in the body and thus prevent the formation of blood clots. Regular blood tests must be performed to ensure the medication is working and the dose is correct.

• Catheterization for stroke prevention (watchman)
  Intervention therapy employing a catheter to reduce the risk of stroke in patients suffering from non-valvular atrial fibrillation. Used in patients that cannot be treated with anticoagulants for various reasons. The technology permits blocking the passage of blood clots from the left atrial appendage (the area from where clots causing strokes are sent) by a special device - a watchman.

• Direct thrombin inhibitors (DTI) such as Dabigatran – Pradaxa
  The body's blood coagulation system includes an enzyme called thrombin. The body produces this enzyme and uses it to promote clot formation. DTI medications inhibit the production of thrombin, thus preventing blood clot formation. The medication's effect is predictable, preventing the need for monitoring it through regular blood tests such as INR. Prior to the treatment, a renal function evaluation must be performed. The medication is practically unaffected by food.
• **Factor Xa inhibitors (such as Rivaroxaban - Xarelto, Apixaban - Alcavis)**
  The body's blood coagulation system includes the coagulant protein Xa. Medications that inhibit the protein's production prevent the formation of blood clots and constitute a new generation of anticoagulants. The drugs' effect is predictable, preventing the need for regular blood tests such as INR. The drug's renal evacuation is relatively low, making it more suitable for older patients. The drugs are practically unaffected by food.

• **Antiplatelets (such as Aspirin, Clopidogrel and Plavix)**
  Platelets have an important role in blood coagulation. Antiplatelets inhibit the platelets' function and thus prevent clot formation. Antiplatelets are administered to patients with atrial fibrillation that have low risk of stroke.

• **Statins**
  Statins are the main group of drugs used for lowering high cholesterol levels and reducing the risk of coronary heart disease. Statins are used to lower triglycerides, and can potentially increase good cholesterol levels. Although there are various kinds of statins, their operation mechanism is similar, and is based on inhibiting the effect of the enzyme (reductase) that contributes to the process of cholesterol production, which reduces the liver's rate of cholesterol production and the levels of general cholesterol and bad cholesterol.

• **Medications for lowering blood pressure are divided into several groups**
  1. Calcium inhibitors, diuretics and alpha blockers
  2. Beta blockers, converting enzyme inhibitors and angiotensin receptor blockers
  Drugs have different effects person to person. The doctor prescribes the patient a drug that would balance his or her blood pressure with minimal side effects, taking into consideration the patient's age, pulse, additional medical conditions, etc. Combining several drugs has been found to be more effective in lowering blood pressure compared to using just one. Therefore, if a drug does not deliver satisfactory results, the doctor sometimes recommends adding another one. Usually a drug from group 1 would be combined with a drug from group 2.
  
  The results of the treatment are not immediate, so one must be patient with blood pressure measured regularly to diagnose whether the drug is bringing blood pressure down to the desired degree. It is important to note and report to the doctor any unusual phenomenon in the course of treatment. In any case, treatment should not be abruptly discontinued, as in certain drugs this can lead to deterioration. Therefore before discontinuation consult your doctor.

**TIPS FOR PREVENTING BLEEDING**

• When taking anticoagulants, one has a tendency to bleed more easily. If you bump your head or fall, call a doctor or medical center immediately, as internal bleeding can occur with no outside signs.

• Pay special attention when using knives, scissors or any other sharp object. If possible, use an electrical razor.
• Use a soft toothbrush and waxed dental floss. Do not use toothpicks.
• Before any visit to the dentist or oral hygienist, be sure to mention you are taking anticoagulants.
• When working in the garden or using sharp objects, be sure to wear gloves.
• If you suffer from warts, go to a clinic. Do not try to treat them yourself.
• Try to prevent falls – ensure the stairs and floors are not loaded with excessive objects that you can bump into, and wipe wet areas immediately to prevent slipping.

MAINTAINING A HEALTHY, ACTIVE LIFESTYLE

Lifestyle changes can reduce risk factors, improve health parameters, maintain functionality and prolong life. Physical activity contributes considerably to improved walking as well as other activity parameters in the post recovery period. Physical activity has a beneficial effect on blood pressure, diabetes and blood fat levels, thus contributing to preventing a stroke. It is recommended to engage in moderate aerobic exercise (walking, swimming, biking, etc.) for 30 minutes, three times a week. It is important to maintain a diet low in saturated fats (red meat, butter, margarine, eggs and fatty cheese) and prefer food rich in unsaturated fats (olive oil, avocado, tahini, walnuts). It is recommended to maintain a BMI (body mass index) of less than 25, or a waist measurement of 102 cm for men and 88 cm for women.

It is recommended to consult with an endocrinologist or dietitian in determining your daily menu, and with a physical therapist about the type and duration of physical activity.

WHAT FUNCTIONAL CHANGES CAN OCCUR AS A RESULT OF A STROKE?

As a result of a stroke, functional changes can occur depending on the area of brain injured. These changes can significantly affect the patient's independence and lifestyle. Many of these changes can be treated so as to achieve complete or partial recovery depending on the intensity of the injury:

• **Motion:** paralysis or weakness of muscles in one side of the body, muscle limpness or stiffness, and coordination or balance difficulties. A person who has suffered a stroke in the left part of his/her brain will suffer from weakness or paralysis in the right side of his/her body. In comparison, a person who has had a stroke on the right will suffer from weakness or paralysis in the left side of the body.
  These changes can affect switching position when lying down, sitting stably, walking, switching the body's position and swallowing (as a result of muscle weakness and reduced coordination of the muscles in the mouth and pharynx).

• **Communication:** when a person is injured in the left side of the brain where the language center is located (this will be reflected in the right side of the body), he or she may suffer from impaired speech and language skills (aphasia). Aphasia is language impairment leading
to reduced communication and auditory understanding on a daily level. In this case the intellectual ability can be maintained, but the patient loses (fully or partially) his or her ability to use language, express their wishes through speech, understand spoken language, read and write. The difficulty can be reflected in expressing supposedly simple ideas such as hunger, attempting to remember the names of close relatives, etc. Sometimes the difficulty only involves the motorics of speech (dysartharia), which leads to difficulty in pronouncing sounds, making the person's speech impaired, slow and unclear.

- **Swallowing**: swallowing disorders (dysphagia) are reflected in actual difficulty to swallow due to impaired function of the chewing organs (lips, tongue, palate) or in impaired stimulation of the swallowing reflex. These difficulties can be identified by coughs or throat clearing when swallowing. Failure to diagnose and treat these conditions can lead to pneumonia caused by inhaling food to the lungs (aspiration).

- **Sensation**: reduced sensation in various parts of the body can be experienced. Some patients can suffer pain, numbness or unusual sensations. These can stem from various reasons, including damage to the sensation area in the brain, joint stiffness or a handicapped limb. Another, less common type of pain is called "central pain syndrome", caused by damage to an area of the brain known as the thalamus. In this case the pain is a combination of sensations including cold, heat, a burning sensation, numbness and tingling. It focuses mainly in the limbs and tends to worsen between seasons. Sometimes, bedsores can develop as a result of prolonged motionless sitting or lying. Pulling on the weak, injured arm can injure the shoulder joint and lead to intense pain.

- **Spatial perception**: when a person is injured in the right side of the brain (i.e., the left side of the body), a phenomenon known as “neglect” can occur. As a result of the stroke, the patient becomes unaware of one side of the body, thus unable to identify or react to significant stimuli in one side of their field of vision. A patient with neglect is unaware of his or her condition, and is subject to household accidents or even car accidents if holding a driver's license.

- **Thinking**: a stroke can lead to difficulty in time and place orientation, and in recognizing people (the person's children or spouse). The patient can even experience difficulties in concentration, understanding, thinking, memory, basic judgment and planning supposedly simple actions. Many of these changes can be improved by appropriate rehabilitation.

- **Behavior**: passiveness or in fact over activity and aggressiveness can manifest themselves, as well as incorrect judgment that may lead to inappropriate decisions contrary to any acceptable or past logic.

- **Emotion**: difficulty to control emotions may appear, or the expression of emotions unsuitable to the person's circumstances. The most common problems after a stroke are depression and anxiety. Depression may occur as a reaction to the changes caused by the stroke and/or due to the location of the damage to the brain (in an area monitoring emotion).
Signs of depression can include sadness, outbursts of crying, loss of interest in daily activities, weight loss, loss of appetite, impaired sleep, a feeling of helplessness or guilt, difficulties in understanding or concentration and reduced ability to experience pleasure. Other possible problems can include aggression, changes in body image, denial of the patient's condition and handicaps, and fits of laughter that turn into tears, choking and heartbreaking crying for no apparent reason.

- **Fatigue:** many patients feel tired and exhausted long after the stroke. Sometimes this is the brain’s way to recover from the trauma. In other cases the effort required in order to speak and concentrate can be exhausting.

- **State of consciousness:** in some cases patients can suffer from confusion or a tendency to be sleepy.

- **Incontinence:** in certain cases the muscle of the urinary bladder can become involuntarily spastic, regardless of the amount of urine accumulated inside it. A bedridden person following a stroke may wet his or her sheets only a few minutes after first feeling the need to empty their bladder. In many cases the patient can feel a false need to urinate without actually being able to do so.

- **Convulsions and epilepsy:** some patients suffer from convulsions after a stroke, if they begin early after the stroke, they usually cease by themselves. If they begin later on, they may last longer and develop into epilepsy which would require medications.

**CAN A PATIENT RECOVER FROM A STROKE?**

The degree of recovery depends on the seriousness and location of the injury, as well as the size of the brain tissue injured. Additionally, recovery depends on an appropriate rehabilitation program, the patient’s mental resources and the amount of support provided by their close environment (family, community).

Many people suffer a slight stroke that is virtually not felt or causes small consequences and damage. Others are forced to cope with greater difficulties and their journey to recovery and back to normal life is longer.

**WHAT CAN BE EXPECTED WHEN HOSPITALIZED AFTER A STROKE?**

The purpose of hospital treatment is to reduce brain injury during the acute phase, locate the reason for the stroke (etiologies), and decide on treatment to prevent another stroke. At the hospital ward (neurological or internal), a multi-disciplinary team composed of doctors, nurses, a dietitian, social worker and sometimes even rehabilitation professionals (physical therapy, occupational therapy) will do its best to assist during the hospitalization and in the beginning of the rehabilitation process. Treatment is different patient to patient, and tailored personally to his or her specific condition.
WHAT EXAMINATIONS ASSIST IN DIAGNOSING THE PATIENT’S STATE OF HEALTH AFTER A STROKE?

In order to evaluate the patient’s medical condition and achieve an accurate, reliable diagnosis, the medical team can employ a number of tests. During the patient’s hospital stay, and based on his or her condition, the team will decide what tests should be performed and when.

- **Brain CT**: an x-ray test performed by computerized scanning of the brain. Permits the diagnosis of the type of stroke (hemorrhage or infarction). The test can be performed with or without the injection of radiocontrast material, based on need and the doctor’s decision. Radiocontrast material assists in imaging blood vessels.

- **MRI**: an imaging test based on magnetic fields and radio waves. This is an additional tool to diagnose the cerebral damage.

- **EEG**: this test examines the brain’s electrical activity by the use of electrodes attached to the scalp.

- **Dopler test**: ultra sound imaging of the neck arteries. Checks the quality and speed of blood flow in the neck arteries in order to locate stenosis or blockage. The information obtained is important for making decisions as to future treatment.

- **TCD**: intracranial dopler test. Evaluates the condition of the blood vessels inside the brain and the speed of blood flow in them. Similar to the dopler test, but addresses blood vessels in the brain rather than the neck.

- **Echocardiography**: a test that examines the heart cavities with sound waves, with the purpose of ruling out pathologies that can send clots or emboli to the brain.

- **TEE**: echocardiography performed through the esophagus. Permits more accurate imaging of the heart and large blood vessels of the chest with sound waves. This test can locate emboli coming from the heart or caused by unidentified congenital defects. It is performed in special cases at the heart institute by local anesthesia of the pharynx, and if needed by the administration of a tranquilizer that causes slight fogginess.

- **Holter monitor**: an EKG device that records heart pace over a long period (24 to 48 hours) allowing the identification of such disorders as atrial fibrillation that cannot be seen on a routine one-time EKG.

DEVICES IN THE INTENSIVE / INCREASED CARE UNIT THAT ASSIST IN EVALUATING THE PATIENT’S MEDICAL CONDITION AND WARN ABOUT CHANGES:

- **Monitor**: assists in constant tracking of heart activity. Connection to monitor is done with 3 to 5 wires attached to the chest with stickers.

- **Saturation meter**: can test oxygen saturation in the blood. Connected to the finger or ear with wires. Oxygen saturation should approach 100% in nonsmokers and is lower in smokers.
RECOVERY AND REHABILITATION

Medical rehabilitation is a collaborative process achieved by the patient, family and multidisciplinary staff. As part of this process, efforts are made to recover as much as possible the functions injured by the stroke, and return the patient to his or her former life.

The rehab process begins the moment the patient is admitted to the general hospital ward. However, in the first hours intervention is very cautious, so long as the patient's medical condition is still unstable. After a period of hospitalization and when the patient has stabilized, an evaluation can be performed as to the necessity to transfer him or her to a rehabilitational institution - whether a hospital, rehab in the community or other approaches.

If the disability is slight, rehab in the HMO's day clinics can be considered, or at home with the aid of community services, so long as the conditions at home are suitable. Additionally, the spouse's ability to dedicate themself to treatment is taken into account, as well as the patient's functionality level and emotional and intellectual condition.

If the functional disability is medium or severe, the appropriate rehab approach would be hospitalization in a rehab ward for an average period of several weeks, after which the patient would go back home.

It is important to read the Health Ministry circular "Criteria for Administering Rehabilitational Treatment to the Elderly" specifying all of the procedures concerning rehab and the criteria for referring a patient to be hospitalized for rehabilitation. This way you can make the most of your rights and choose the most appropriate rehabilitational approach.

WHAT SHOULD BE DONE WHEN THE HMO REFUSES TO APPROVE HOSPITALIZATION FOR REHABILITATION?

Entitlement to rehab depends on the recommendation of the medical staff in the general hospital where the patient is staying. Sometimes, the decision is made by a general hospital staff which does not include a rehab doctor. In this case, errors can be made in identifying the chances of rehab. Other times, the HMO does not follow the medical staff's decision and decides that hospitalization for the purpose of rehab is not mandatory.

When the family feels the rehabilitation potential does not fit the selected rehab approach, it is recommended to take the following actions:

A. Contact the HMO's ombudsman.
B. File an appeal about the decision with the ombudsman's office at the Ministry of Health.
C. Request the assistance of the Neeman Association - see details in this booklet.
D. If the letter of release does not contain a recommendation for hospitalization-based rehab, a private rehab doctor can be called upon to provide his medical opinion as to the need for rehabilitation, in coordination with the ward.
WHO CAN SELECT THE WARD / HOSPITAL FOR REHABILITATION?

The quality of rehab sometimes depends on the rehabilitation facility's geographic location and the family's ability to make frequent visits.

The law permits the patient to select the location of hospitalization out of the institutions who have signed an agreement with the HMO ("selection agreement"). The law requires the HMO to post the list on its website and provide it to anyone upon request.

Complaints about the HMO's decisions concerning medical treatment and rehab can be filed, specifying the patient's personal information and the HMO, and providing medical documents. Such complaints would be sent to the National Health Law ombudsman, either by fax to 02-5655981, by post to 39 Yirmiyahu Street in Jerusalem, or by e-mail to kvilot@moh.health.gov.il. The ombudsman's office can also be called at *5400.

THE REHAB HOSPITAL

Rehab hospitals have multidisciplinary staff who assist the patients in training, demonstrations, drilling and support. In recovering from the results of a stroke, a natural process of spontaneous recovery takes place by itself through the body's own mechanisms. Rehab can contribute to this process and help to promote it. Another role of the rehab process is to prevent immediate or later complications as much as possible, and teach the patient and his / her family how to cope with the new disability and use undamaged functions to the limit.

Duration of rehab: the functional recovery process can take weeks, months or many years after the stroke. Rehab needs vary patient to patient, based on the seriousness of their condition, rate of recovery, age, general medical condition, accessibility of the patient's home and other variables. It is the HMO's responsibility to provide hospitalization-based rehab as long as the medical need exists based on the recommendation of the attending physician at the rehab hospital.

PRIOR TO BEING RELEASED FROM THE HOSPITAL – A GUIDE FOR THE PERPLEXED:

The process of going back home, in many cases to a new life, necessitates many actions to be taken.

- **Release letter:** prior to being released from the rehab institution, the patient or their supportive family member will receive a release letter prepared by the multidisciplinary staff. This letter includes a hospitalization report, a full description of the patient's condition, results of medical exams, recommendations for future treatment and rehab, and a referral to an authorized professional to fulfill the recommendations and keep track of their fulfillment (GP, community social worker at the local authority).
• **Hospital social worker:** it is recommended to talk to the social worker in order to understand the process that needs to be implemented.

• **Making the living environment accessible:** it is better to make the living environment accessible even before going back home. For this purpose you can contact the hospital social worker, obtain instructions about the process from the HMO, and contact the Ministry of Health in order to obtain various physical aids and a wheelchair.

• **Further treatment unit:** every HMO has a further treatment unit that provides medical care at the patient's home, and the hospital reports to them about the patient's condition upon their release. The process of receiving this report is slow, and the rehab process may be interrupted. Therefore, it is important to contact this unit immediately after the release from the hospital and demand the process be expedited in order to ensure treatment continuity.

• **Filling in National Insurance claim forms:** you should contact the hospital's social worker in order to fill in claim forms for the National Insurance Institution (see details below).

• **HMO's:** contact your GP to update him or her as to the patient's condition.

• **The authorities:** setting in motion the process of going back to the community and checking the need to involve the local welfare authorities, especially for protected employment purposes if necessary.

### REHAB IN THE COMMUNITY

Methods for rehab in the community include:

• **Day hospitalization:** a multidisciplinary team provides the patient with the same rehab treatment as in full hospitalization, but the component of returning to the normal living environment and family is part of the rehab effort.

• **Clinics and institutes:** the HMO's institutes and rehab specialist clinics, where a more focused rehab process is continued, mainly in areas where rehab potential is observed (normally physical therapy and occupational therapy).

• **Social/rehab clubs:** the Neeman Association operates clubs around the country that permit the patient to maintain rehab gains and provide members with improved quality of life, a wide variety of activities, considerable satisfaction, improved abilities, new friends and a hope for a better future (see list of clubs at the end of this booklet and on the Association 's website).

• **Clubs:** the Yad Sarah Association also operates clubs throughout Israel where patients of various diseases and handicaps can gather.
TREATMENTS THAT CAN HELP THE PATIENT DURING AND AFTER HOSPITALIZATION, AND HEALTH BASKET CONTENTS

• Physical therapy: physical therapy has the purpose of recovering as much independent physical function as possible. Its objectives are as follows: diagnosing the functional disorder, and achieving and improving motor skills, balance and coordination, independence in and outside the bed, independent transitions and mobility, reduced pain and improved tolerance. Therapeutic methods vary and are tailored to every patient’s physical condition. They include ensuring a proper position in bed, correct posture in sitting and standing, encouraging motion, increasing motion ranges, sensory stimulation, maintaining motion ranges and muscle strength, and selecting mobility aids for the patient as needed. In addition to personally treating the patient, the physical therapist’s role is to instruct the family, particularly the patient’s main source of support, and provide them with the tools to assist the patient in the hospital and at home so as to promote rehab.

What does the health basket contain as far as physical therapy? So long as the patient is in an acute condition after the stroke, they are entitled to unlimited physical therapy based on medical need. After the rehab process has ended and when the patient is stable, they are entitled to 12 treatments every year.

PLEASE NOTE – WAITING PERIODS FOR PHYSICAL THERAPY

Based on Health Ministry instructions:

• An appointment specified as urgent - up to 3 work days
• An appointment not specified as urgent - up to 15 work days

If an appointment is set to a later date, you should bring this obligation to the HMO’s attention, and if any problem is encountered, contact the Neeman Association and the Society for Patients Rights.

• Hydrotherapy: a physical therapy program done inside a special pool with the purpose of improving skeletal, nervous and muscle functions. Hydrotherapy can make motions easier, reduce spasms, induce relaxation, reduce edemas, re-teach various functions, provide resistance to motion without the use of devices, increase cardiovascular fitness and improve self esteem. It usually does not replace physical therapy.

What does the health basket contain as far as hydrotherapy? Done as part of physical therapy with no additions to the health basket.

• Occupational therapy: the purpose of occupational therapy is to diagnose the functional disorder, achieve maximum independence in daily life, improve fine motor skills and coordination, encourage correct motions and suppress incorrect patterns, increase awareness to the injured side and encourage its use, and increase awareness to lack of sensation and “neglect” (neglecting the injured side).

Occupational therapy instructs the patient and caregivers as to correct body positions in lying down, getting up and sitting, provides instruction on correct handling, activates the patient in order to increase motion ranges and strength, utilizes flexible or stiff splints,
provides sensory stimulation, exercises thinking, memory and concentration in areas that have been damaged (cognitive therapy), assists the patient in experiencing various functions depending on the stage of the disease, fits various physical aids to the patient to improve daily function, recommends changes in the person's living environment and provides their family with guidance.

**What does the health basket contain as far as occupational therapy?** So long as the patient is still in an acute condition after the stroke, they are entitled to unlimited occupational therapy based on medical need.

- **Speech therapy:** its purpose is to diagnose the disorder, rehab the motor skills of the speech organs (dysarthria), and improve swallowing difficulties and difficulties in using one's voice. It can also involve language / communication rehab for patients with damaged language (aphasia) and teaching them to effectively use existing language / communication abilities to improve communication with the environment. Family instruction focuses on learning the conditions and means that can be used to communicate to the patient and understand him or her.

**What does the health basket contain as far as speech therapy?** The law supposedly established a limit of 20 treatments in an acute condition, but in actuality all HMO's provide unlimited speech therapy during the acute stage after the stroke, based on medical need.

- **Emotional support:** a stroke is a sudden event that disrupts the normal course of life of the patient, their family and their close environment. The shock and confusion in the initial period following the stroke is considerable. The more intense the stroke, the greater the fear, tension and helplessness experienced by the patient's family. This can lead to crisis reactions such as shock and anxiety about the future that can be expressed as anger, aggression and sometimes even depression. Such reactions are normal. Each person has different resources to begin coping with the crisis, and therefore everyone should be permitted to take the time they require, and provided with a place where they can feel comfortable to express their feelings. However, if anyone in the patient's close environment feels the reactions of a particular family member exceed what could be expected in this family or for that person, take longer than expected or are particularly intense, that person can be referred to a professional (social worker, psychologist, psychiatrist) to assist them in finding additional ways to cope with the new situation.

- **Psychotherapy:** treatment by a doctor, psychiatrist, psychologist or social worker on behalf of the HMO for empowerment and to prevent depression or severe moods that disrupt and inhibit further rehab.

**What does the health basket contain as far as psychotherapy?** Currently the health basket contains 30 treatments annually for 2 years (60 treatments in total). From July 2015 entitlement will be revised to include unlimited treatments based on medical need.

- **Skin treatments:** bedsores are a complication of prolonged lying or prolonged sitting in a wheelchair. Usually sores are located in the joints and posterior. In order to prevent them,
change of positions should be ensured. It is important to use cushions to support the limbs on the injured side as well as special mattresses.

- **Relations, intimacy and sexuality:** sexuality is an important part of everyone's life that affects a person's self esteem and quality of life. The functional effects of a stroke can make the patient feel uncomfortable and awkward about their body, which is natural. It is also natural to be afraid of rejection or feel insecure about one's ability to bring about satisfaction. Sexuality is not only intercourse. It is also expressed in shared enjoyment, intimacy, touching and warmth, a hug, a caress and a kiss. Sexuality varies couple to couple, but for most couples the disease will lead to habit changes.

Nowadays there are ways to assist in this sensitive area, and it is recommended to contact a clinic specializing in sexual dysfunction.

- **Improving upper limb motion after a stroke – treatment with botulinum toxin**

This treatment is for those suffering from spasticity (permanent intense muscle contraction) after a stroke, who have impaired motion and function in an upper limb.

**What does the health basket contain?** The preparation is included in the health basket for the following indication:

Focal spasticity in an upper limb as a result of a stroke, under all of the following conditions:

1. For patients after a serious stroke with severe arm spasticity that does not improve with oral treatment or physical therapy.

2. Further treatment will only be administered to patients with proven improvement under the first two treatments with the preparation.

Treatment should be combined with rehab therapy such as physical therapy and occupational therapy, and sometimes with the use of a splint to maintain muscle length.

In order to obtain the HMO's approval for the treatment, you will need to contact the GP and obtain a neurologist's instruction.

The clinic list can be seen on the Neeman Association’s website [www.neeman.org.il](http://www.neeman.org.il)

**WHAT IS THE EXISTING SERVICE BASKET PROVIDED BY THE HMO’S FOR THESE TREATMENTS?**

It is recommended to read the website of the Neeman Association for information concerning the patients' rights at the HMO's.

Please note – some of the HMO’s complementary insurance policies cover rehab treatments that apply in a chronic condition such as therapeutic swimming, a higher limit for physical therapy treatments, etc. It is recommended to check entitlement for each HMO.
DAILY ACTIVITIES IN THE ASSOCIATION
שיקום מחויק
לفحצה בפשפ פגיית בנתיעה
שורת חטיה לשיקום מחויק באתצעות המחשב הביתי שלך
בהדרכה מ릅יאים עיסוק, פייזווריסטים וכליאי תקשורת
מופיחים בשיקום

הفحצה בפשפ–אפזיה
תרגול וימיי של קסיים בשפתי עומר לשוואר הפקעתה. מערכת
מופיחים ש엥וחל במחשוב בניו שלך שכלי לפיתח כר לחרל.
mערכת בוגר מסלול ששאבים לכל השפתיות האישיות שלך
ופלאים אתן בדומן אמה. וכליאי הפקעתה מפשק על המערכת
ונמציא אתך בכרח שוטר.

פגיית בתיה
טעים חדים יביי קסיים תנועות ו śmויוזות הצור, באמטעות
מלאת והובנה המיוחת, מולם זה Reidי ב AssemblyVersion ופייזווריסטים
מחויק. המערכת מ القطاع بغין מסלול שמחתימות לקושי
הפקודי, שבל מחקון אשר בדומן אמה, אנחנו שמחתימים יתבעו
באומן כוון.

*השירותvince בחלשוש

www.reabilityonline.com | 03-9411440
לפרטיים נוספים: 03-9411440
מומחים לגיל השלישי
שנים של专點
בגיל
השלישי
לימדו אותנו שטיפול טוב באמת
חייב להתאים לצרכים המיוחדים
של כל אדם.

“אני רשת תרבותית - בריוואית ראשונה
מסוגה בישראלי bewildרבריוואת המאפים
ולחיתון עדות ושימור, לשחר קבוצות אישיים,_LR
 forsk מהמקבץ לקבוצת מנהלת
’combeי קומוי’ קומוי יצרה לקטן
ולעמדת את הקטן. קומוי, קומוי, קומוי.
איך מ饺 כיבור לשימור של קומוי, ממסד
מקים, קומוי, קומוי, קומוי, קומוי.
איך קומוי
החברה של קומוי.
SMB מזמנים: קומוי, "בקטגורית" בראשית השמיים
שתира. Webi 2012 אוקטרט מול"ל

Chopin
呼ばれ לבירי

www.camoni.co.il
When Mom was released from the hospital, we contacted the Matav Association and were provided with an explanation on her entitlement for a nursing pension.

Matav located a caregiver who has helped her to reacclimate to her home and has assisted her since.

Your parents deserve the best service. Contact the Matav Association, the largest and most professional nursing organization in Israel:

- Nursing services for patients eligible for a nursing pension and for private customers
- Foreign employee placement through authorized firms
- Free consulting by a social worker about moving to a retirement home or protected accommodations

Matav  Because in the moment of truth, there is someone you can trust
Association for care and welfare services, registered association
INVolVING THE FAMILY IN CARING FOR THE PATIENT

THE MAIN SUPPORTER - HELP AND SUPPORT

Support provided by the family to a patient recovering from a stroke is crucial to rehab effort success. Making the family into a full participant in crisis management is an essential condition in establishing a new fabric of life for the patient and their family - their spouse or children. As time goes by, the familial support component becomes more and more important. When the patient goes back to their home and community after rehab is complete, their family members will be the ones bearing most of the load of further treatment and relentless search for solutions and ways to improve the patient's quality of life.

Caring for a family member who has experienced a stroke is a difficult, complex task physically, mentally and emotionally, characterized by uncertainty about the future and leaving the main supporter mentally exhausted. The main supporter’s strength as exhibited for prolonged periods is a guarantee for their ability to assist the patient and other family members to bear this heavy load successfully.

When the family prepares itself for the intial months after the stroke, it is important to make a clear decision on the identity of the main supporter and the terms under which they are to fulfill their role. The supporter's mental and physical health require almost the same amount of attention as the patient's, and they should be provided with hours and days of rest with responsibility taken off their shoulders. The main supporter may themselves require support, and sometimes firm intervention is necessary to demand they rest for several days in order to be able to fulfill their difficult task.

Support groups for supporters: most people have great difficulty asking for help. They view it as an admission of failure, as washing their dirty laundry in public, or even as a weakness of which they should be ashamed. Sometimes one needs to learn to ask for help and support. Participation in a group exposes one to information about the disease and ways to cope, as acquired through personal experience. Feelings and behaviors become more legitimate, and support and assistance among participants can occur.

For information about the Neeman Association's support group:
www.neeman.org.il
or call our telephone support center: 077-4665213
TO WHAT RIGHTS IS A STROKE PATIENT ENTITLED?

NATIONAL INSURANCE (SOCIAL SECURITY), PENSIONS, RIGHTS AND BENEFITS – UP TO RETIREMENT AGE


It is best to visit the nearest National Insurance office as soon as possible in order to inquire about the patient's rights. In many cases, various entitlement procedures can be initiated even before full release from the rehab facility.

If the stroke occurred at work or was connected to the person's work, this should be mentioned at the hospital, and the fact should be noted in the release letter, which serves as a professional opinion for legal purposes. A claim to the National Insurance Institution for an industrial accident must be filed up to a year after the stroke. As this claim is complex, it is recommended to seek legal advice prior to contacting the Institution. The way National Insurance forms are filled in is extremely important, as these serve as legal documents.

- **Disability pension:** is paid up to retirement age to patients whose earning ability has been reduced by disability. Entitlement to disability pension begins to be calculated 90 days after the stroke. This is done after documents are submitted and the patient's disability rate is determined by a medical committee, who in the same document establishes both medical disability and loss of working capacity (expressed as a percentage of functional disability). The disability pension rate is established by weighting medical disability and degree of loss of working capacity. Sometimes additional benefits are also received.

PENSIONS FOR PATIENTS REQUIRING THE ASSISTANCE OF ANOTHER

Two pensions are available to assist those who require the assistance of another person in their daily activities and/or constant supervision.

- **Patient prior to retirement age – special services pension:** paid up to retirement age to those requiring the assistance of another person in their daily activities or constant supervision. In order to approve this pension, the dependence rate in performing 5 basic actions is tested (mobility, bathing, eating, hygiene, dressing). If the patient requires constant assistance and supervision and is released back home, they are entitled to an immediate special services pension, subject to filling in the test form and obtaining the National Insurance Institution's approval.

- **Patient after retirement age – nursing pension:** paid to those who have reached retirement age, are living in the community (at home or independently in protected accommodations) and require assistance in daily actions (dressing, bathing, eating, walking around the house, etc.). It is also paid to elderly people who require supervision to prevent them from posing a hazard to themselves or the environment (for example, people suffering from cognitive
decline such as alzheimer, who may pose a risk to themselves or the environment when left alone).

The person entitled to this pension will select services out of the existing service basket: home care, visiting a day facility, supply of adult diapers, emergency transmitter and laundry services.

The pension is paid based on income and functional condition.

The claim form for the nursing pension must be submitted at the nearest National Insurance office. It can also be submitted by post, fax or via the office's service box.

The claim can also be filed by another person representing the patient (family member, guardian, social worker or nurse). The claim form must include the attending physician's opinion, and income confirmations must be attached.

After filing the claim, the claim clerk will check if you meet the initial entitlement requirements. If you do, an assessor on behalf of the National Insurance Institution will set an appointment at your home, to inspect your functional abilities.

• **Dependent persons benefit:** an addition to the disability pension for a spouse who is unemployed or earns low wages (based on an income test), and for two children (only) under the age of 18.

• **Mobility pension:** paid up to retirement age, and is the same for men and women (for accurate information concerning age, please see the National Insurance website). A mobility pension provides benefits to anyone suffering from neurological disorders and/or impaired blood flow in the legs limiting their mobility. According to the degree of mobility established by the Health Ministry's mobility committee based on the law, grants, discounts and loans are provided for purchasing a new car and special devices, and a monthly mobility pension is paid to car owners / non car owners.

• **Exemption from National Insurance payments:** a person paid a disability pension who has no other income is exempt from National Insurance payments so long as they are on the pension, except for a reduced health insurance payment to the HMO deducted from the pension. A person with at least 75% inability to earn, for at least one year, is exempt from National Insurance payments even if they have additional income, except for a reduced health insurance payment to the HMO deducted from the pension, even if they work or are required to pay. Details can be obtained at the collection department of the National Insurance Institution.
• **Entitlement to professional rehab at the National Insurance Institution:** if a medical committee has established at least 20% permanent medical disability for the patient, they are entitled to professional rehab, provided that the disorder is preventing them from performing their job or other suitable work, and they require vocational training in order to go back to their former work or work in some other suitable occupation.

• **Rehab pension and other payments:** if you are on a full disability pension, you will not be entitled to a rehab pension. If you are on a partial disability pension, your pension will be complemented up to the amount paid for 100% disability, based on your familial composition. If you are not on a disability pension, then during the training period you will be entitled to a rehab pension according to the amount paid for 75% disability or more, based on your familial composition. The rehab pension will be paid if you study at least 20 hours a week.

If a patient cannot undergo professional rehab, the spouse’s entitlement to professional rehab will be examined.

• **Professional rehab for sufferers of industrial accidents:** if at least 10% disability has been established as a result of an industrial accident, and you are unable to go back to work or work at another suitable job, and have been found suitable for professional rehab, you can learn a new profession that fits your qualifications and employment market demands, through the National Insurance’s rehab services. If in the opinion of the Institution’s physician your work can pose a risk to your health or to safety at your workplace, you can be entitled to professional rehab even if your disability is less than 10%.

• **Choosing and training in a profession:** choosing a profession and any training will be determined in coordination with the rehab clerk.

If your disability is higher than 65%, you were found to qualify for a higher education institution, and have chosen to train in a profession, you will be entitled to (full or partial) funding of your bachelor’s degree studies.

• **Rehab pension and other benefits:** in the course of your vocational training, the National Insurance Institution will pay you a rehab pension, your tuition, the costs of any learning aids and travel expenses.

**Rate of rehab pension:** if your disability is 20% or higher, you will be entitled to a monthly disability pension determined by your rate of disability. However, during your studies, your pension will be increased to the disability pension that would have been paid to you if your disability were 100%.
If your disability is 19% or less and you are only entitled to a one-time grant, during your studies you will be paid a monthly pension at the rate that would have been paid to you for 100% disability. If you have any other income from an occupation in the period of your professional training, the rehab clerk will be permitted to deduct it (fully or partially) from your rehab pension - based on your economic condition and the chances to increase your income after training. If you work as a salaried employee during your training period, you will only be paid the amount deducted from your wage as a result of being absent from work for training, so long as this amount does not exceed the rehab pension.

- **How do I apply for professional rehab?** At your nearest National Insurance office, by filling in a professional rehab claim form. The application should be filed within a year of having been assigned a rate of permanent work disability, attaching confirmation of disability and lack of work capacity rates.

The Ministry of Welfare has a rehab division that provides disabled people from birth to the age of 65 with rehab services through social services departments at the local authorities and through various public organizations. These services include developing functional skills in various areas of life in order to achieve maximum autonomy and independence.

- **Community services:** recreational services - activities suited to the patient's age, disability type and functional capability.
- **Care outside of the home:** finding housing solutions based on functionality level - dormitories, foster families and protected accommodations.
- **Occupational rehab:** has the purpose of assisting the person to rejoin the labor force, improve their quality of life and self-image, and provide them with an income-producing occupation. This is done through diagnosis, professional training, open market work placement and protected or supported employment.

A handicapped person will be referred to professional rehab services by the local social services department, the National Insurance Institution, health organizations (HMO, hospital), the Jewish Agency, the Ministry of Immigrant Absorption, the government employment agency or private organizations.

**THERE IS A SOCIAL SERVICES DEPARTMENT IN EVERY LOCAL AUTHORITY.**
ADDITIONAL BENEFITS:

• **Discounts on property tax:** a local authority is permitted to provide disabled people and senior citizens with discounts on property tax based on various criteria established by the specific local authority, such as disability rate and personal economic condition. A disabled person applying for such discount should contact their local authority's collection unit and fill in a property tax discount application form. A confirmation by the National Insurance and documents providing evidence of their economic condition and disability must be attached.

• **Discounts on public transportation:** a disabled person being paid a disability pension by the National Insurance based on a stable incapacity rate of at least 75%, and anyone being paid a general disability pension who are also paid a guaranteed minimal income, may be entitled to a 33% discount on public transportation. The discount only applies to multiple-entry tickets. Some lines do not provide a discount. A public transportation discount entitlement certificate will be sent automatically about a month after the disability pension is first paid. For additional information please contact the Public Transportation Division, 8 Hamelaka Street, POB 57109 Tel Aviv 61570.

• **Discount on Bezeq's phone services:** anyone being paid a general disability pension based on a rate of at least 80% is eligible for a discount on Bezeq's telephone services. An application form must be filled in (can be found on Bezeq's website), attaching a photocopy of your ID card, National Insurance confirmations, photocopy of your last telephone bill, and rental contract when applicable. The documents should be forwarded to the Rehab Division of the Ministry of Welfare.

• **HMO:** whoever is being paid a general disability pension is exempt from payment for visiting an internal doctor or specialist, for hospital obligation and for visiting institutes and outpatient clinics. The exemption is automatic, based on lists forwarded to the HMO's by the National Insurance.

• **Income tax exemption:** if your disability rate is at least 90% for at least 6 months, you are entitled to income tax exemption. The exemption is granted at any age regardless of retirement age.

A person injured by a medical incident whose disability rate has yet to be determined, or a person unable to apply for disability at the National Insurance (due to age or income), can apply (for a fee) to a combined income tax and National Insurance medical committee, and will be exempt from income tax if the committee approves. Please contact your district tax assessment officer to apply.
• **Israel Land Administration:** disabled people are entitled to exemption from various fees in recording actions and transactions relating to real estate. Applications should be filed at one of the land registration offices around the country, attaching confirmations of disability.

• **Employing a foreign caregiver:** The claim is done through special forms that can be obtained on the Population Authority’s website, at the permit unit, at the National Insurance Institution, or from the social worker at the hospital ward. A recommendation for a license to employ a foreign caregiver can be obtained directly from the hospital.

When the approvals are obtained, contact a company that provides nursing services. The funds to which the patient is entitled based on the Nursing Law will be forwarded to the caregiver through the nursing company. The family will only be required to pay the balance for the caregiver’s cost and pay the nursing company its commission.

Attach to the claim form an application for an approval to employ a foreign worker, the attending physician’s confirmation on the claim form, medical documents from the attending specialist, and a National Insurance confirmation of hours of home care (if you have one).

**PLEASE NOTE:**

• It is best to employ a worker via a well known company that can guarantee the worker’s health condition and permits you to select the worker’s gender and spoken languages and replace him or her as needed.

• If you are dissatisfied with the services of one company, you can switch to another.

• In serious cases you can apply for the concurrent employment of two foreign caregivers.
HOUSING

- Tailoring the apartment to the patient's needs: People with motion disability can be provided with assistance in adjusting their apartment and access ways to it. Improving housing conditions for those with motion disability is done via a combined committee of the Ministry of Health and Ministry of Housing. The purpose of this committee is to assist in adjusting the apartment of citizens who are disabled as a result of a disease or injured motor system - and in providing ways of access. Disability is determined by an established medical institution: the HMO's, a hospital or a rehab facility. Assistance is provided by the Ministry of Housing as per the Ministry's procedure. Establishing entitlement and preparing the documents is done with the assistance of the health system - the health bureaus and HMO's.

Please contact the social worker at the chronic disease department of the Ministry of Health, as well as your HMO, to coordinate a visit by an occupational therapist or authorized rehab worker. When all required documents are submitted, your application will be forwarded to the Ministry of Housing via the social worker at the health bureau.

The inter-ministry committee convenes once a month and establishes the rate of the assistance and its components (grant and loan, or loan only). No retroactive reimbursement will be made.

- Physical aids and mobility: The Ministry of Health partially funds rehab, mobility and walking aids for those suffering from permanent disability and living in the community.

The degree of funding by the Ministry of Health is 75% of the cost of the physical aid, as determined based on the type of aid. The deductible is 25% (except for instances of exemption).

To obtain such funding, attach the following documents to the application:

A. Medical report signed by a doctor.
B. Recommendation letter by a physical and/or occupational therapist from your HMO.
C. Functional nursing report signed by a nurse.
D. Social report signed by a social worker.
E. Other documents may be requested as needed.

Please note: It is recommended to check with the regional health bureau prior to beginning the procedure.

Submitting the documents to the health bureaus can be done by the HMO or directly by the patient / their representative.

The application is submitted to the physical aid coordinator at the chronic disease and rehab department of your nearest health bureau.

Additionally, some charity organizations lend such equipment as needed, such as Yad Sarah, Ezer Lema'arpeh, etc.
DRIVING AND MOBILITY

- **Driver's license**: a person who has suffered a stroke causing an alteration of their condition that can affect their ability to drive, is required by law to report this to the Vehicle Licensing Bureau and Ministry of Health. The person should contact the Ministry of Health’s Road Safety Medical Institute to have their actual driving capability assessed and obtain a recommendation to either have their license continued, require special conditions to be met, or revoke it. Telephone numbers: 04-8633555 or 03-5634702.

There are several occupational therapy institutes that can provide you with assistance, advice and a driving assessment (for a fee): at the Beilinson, Bnei Zion and Sheba hospitals.

- **Handicapped parking badge**: an application form will need to be filled in and sent with the required documents to the Ministry of Transportation's unit for handling people with limited mobility: POB 72 Holon 58100. To inquire about the status of your application, call the Vehicle Licensing Bureau's call center at *5678. For more information, see the Ministry of Transportation's website: Licensing and supervision > Licensing vehicles > Handicapped parking badge.

- **Assistance with train transportation**: a disabled person in a wheelchair is entitled to assistance in accessing a train. Contact Israel Railways at least 12 hours prior to boarding time, for assistance in getting into / out of the train with a wheelchair lift and to reserve a seat in an accessible car. Call our information center at *5770. In urgent cases call 03-6117020.

BACK HOME – SUPPORTING PATIENTS ON THEIR WAY TO UTILIZING THEIR RIGHTS AND ADJUSTING TO A NEW LIFE

Being requested to fill in National Insurance forms? Unable to understand what rehab rights your loved one is entitled to, and how to organize the home after their return? You are not alone!

The Neeman Association, through its volunteers and its information and guidance call center, can assist the families of stroke patients coming back home who find it difficult to reorganize their lives, to facilitate the first stages of coping with the consequences of the stroke, by providing applicable information and supporting them in the complicated and exhausting process of utilizing the patient's full rights and communicating with the various authorities, and providing them with emotional assistance and tools to adjust to this new reality.

For additional information, please contact our call center at 077-4665213
RECOMMENDATIONS FOR CORRECT PHYSICAL AIDS AND AN APPROPRIATE ENVIRONMENT

1. SITTING

The best way to sit is on a stable chair or couch - with back and arm rests. The recommended height for the seat is 45-50 cm above the floor.

A. Seat cushion:

There are different kinds of seat cushions in various heights. They are used not only for protection but for comfort as well. The cushion's effectiveness is also affected by body weight, and this factor should be taken into consideration when selecting a cushion, ensuring equal body weight distribution on the cushion.

- A cushion attached to a wooden board the size of the wheelchair seat.
- A cushion with springs that facilitates getting up. This requires professional advice.
- An insert cushion that adjusts to the body's structure.
- A roho cushion - some of the air bubbles can be shut in areas sensitive to sores.
- An air cushion with a valve coated with sealed, washable material.
- A silicon or silicon-like cushion, filled with gell or soft cotton-like material.
- A styrofoam cushion - easy to carry. Can be ordered in the desired thickness.
- A sponge cushion with cross grooves.

2. WHEELCHAIRS

The patient’s medical condition and physical disabilities determine the type of wheelchair that should be selected.

Considerations in selecting a wheelchair:

- Body weight and size - a larger wheelchair for a larger person.
- How will it be used - will it be driven by the patient or another person? Will it be used only at home?
- Structure of the home, the size of its doors, any stairs, and the use of a car suitable for a folding wheelchair.
3. MOVING AROUND THE HOME INDEPENDENTLY

It is best to permit patients who can move around as much independence as possible while maintaining safety. This is achieved by installing rails / supports on walls - on the way to the bathroom, kitchen, living room or television. Supports can be found in any building materials store.

4. BEDROOM

Refrain from using floor mats in the bedroom. A large rug can be attached to the floor with a special rubber sheet.
A night-light should be installed in proximity to the bed.
A night table or small cupboard should be placed in proximity to the bed to place a glass of water, clock, medications, telephone, etc.
Clothes should be stored in a convenient height that does not require bending down or standing on a chair.

A. Beds:

In many cases, a normal bed can be used after making some adjustments as needed (elevation, mattress, physical aids). Special beds are also available, with various mechanisms that facilitate motion when in bed. Additional aids to increase convenience and improve functionality can be added to any bed, normal or special.

B. Mattresses:

For normal beds, there are two types of recommended mattresses: sponge mattresses and sponge rubber mattresses.
To prevent bedsores, there are additional types of mattresses that can be placed on top of the normal mattress on any type of bed:
• Water mattress
• Silicon mattress
• Egg box mattress
• Air mattress with electrical pump

C. Bed accessories:

• “Rope ladder” or handhold connected to the wall - to facilitate getting up.
• Rail - to prevent falling from bed.
• Handhold shaped like an upside down “U”.
• Protective aid for the elbows and heels - to prevent bedsores.
• Bed table - permits eating, writing and reading in bed.
5. BATHING

It is recommended to install a shower rather than a bathtub.

A. Bathroom accessories:

- Rubber mat with vacuum cushions to prevent slipping inside / outside of the bathtub.
- Board placed on the edge of the tub to permit getting in and out in a sitting position.
- Plastic chair for the bathtub.
- Stainless steel handhold on the bathtub wall.
- Curtain - prevents splashing and protects against slipping.

B. Toilet aids:

- Support handles connected to the toilet seat or installed on the wall.
- Folding handholds.
- Elongated handle for the toilet tank.
- Toilet seat elevation.

C. If possible and necessary it is best to dismantle the bathtub and instead install a shower that is wider than usual, in order to permit the entrance of an assistant and make sitting more comfortable.

6. DRESSING

- Dressing should be done in a sitting or lying position, as the body is less stable when standing.
- It is best to place all clothing items within reach.
- Loose clothes made from soft material are particularly suitable for a person who has difficulty dressing.
- If you use only one hand to dress - put the injured arm inside the sleeve first, with the body tilted forward a bit.
- To undress, hold the collar and pull the shirt over your head.
7. EATING AND DRINKING
Correctly sitting at the table on a stable chair of the right height is very important.

A. Eating and drinking aids:

• It is best to use both hands to hold a cup.
• A tray should be placed under the plate (to collect spilled food), with a damp sponge rag or special rubber mat under it, to prevent it from moving while eating and drinking.
• Protective aid for the plate's edges - prevents food from spilling to the sides. Alternatively a bowl can be used.
• Plastic cup - lighter than a porcelain cup.
• Large handle - makes it easier to lift the glass.
• Straw, cup with spout or small kettle - to make drinking easier or for drinking in a lying position.
• Rubber or sponge tubes - to make cutlery handles thicker.
• Bent cutlery - preferably a spoon for all food types.
• Connecting cutlery to the hand by various means.

8. REST SPLINT FOR THE HAND

• Maintains the fingers, thumb, palm and wrist in their correct position.
• Used for a spastic or plasidic hand that does not function or functions minimally.

WALKING REHABILITATION AFTER A STROKE

There are various devices that assist patients suffering from full or partial paralysis of the leg, in moving their foot and bending the knee and improving the patient's walking and quality of life. When the device is placed on the front thigh muscles it assists in straightening the knee, and when placed on the back thigh muscles - in bending the knee while walking. These actions improve the patient's walking, their sense of stability, and their capability to go up and down a staircase.

The Ministry of Health partially funds rehab and mobility aids. The service is provided through the health bureaus (chronic disease and rehab department). For more information, see the Ministry of Health's website: www.health.gov.il
**EXERCISE SUGGESTIONS**

**EXERCISING THE HEAD, FACE AND NECK**

A. Turn the head slowly from side to side and look beyond your shoulder. Bring head back to center and turn in other direction.

B. Inflate your cheeks and move the air from side to side.

C. Make sounds with rising volume.

**EXERCISING THE SHOULDERS**

D. Lie in a “cross” position (= knees folded up). Interlock your hands toward the ceiling, keeping joints straight. Raise shoulders slightly over the mattress.

E. Inhale slowly through your nose. Raise shoulders toward your ears. Stay in this position for 3 seconds. Relax shoulders with a long exhalation through the mouth.

**EXERCISING THE PELVIS**

F. Lie in a cross position, keeping arms by the sides of your body. Move knees from side to side.

G. Lie in a cross position with your hands interlocked and raised. Lift your pelvis in the direction of the ceiling.
**SITTING EXERCISES**

**H.** Sit with your back straight and shift your weight from side to side.

**I.** Sit with your back straight and turn your torso to each side as much as possible.

**STANDING EXERCISES**

**J.** Distribute body weight evenly on both legs, supported by a table.

**K.** Stand with your legs straight and touching each other. Stretch your right - then left - arm. A drawer chest should be used for support to maintain stability. This exercise can be done sitting at a table.

**PREVENTING SHOULDER PAIN**

**L.** Shoulder pain can be prevented by sitting and lying correctly and/or by using an “8” shaped belt.

If this problem occurs, consult with your attending staff.
HOW TO GIVE LIFE MEANING AGAIN?

Life has changed, sometimes unrecognizably. This is the time to find new hobbies, attend classes, and utilize extension courses through the computer.

New fields of interest should be sought and developed, such as painting, sculpturing, music and more. More information about existing classes can be obtained at your local community center, the Yad Sarah rehab centers, and the clubs of the Neeman Association.

You can also take a holiday in Israel or overseas. Information about accessible locations and tracks can be found on the Access Israel website - www.aisrael.org.

COMMUNITY SERVICES

The Neeman Association was established to provide support in the community for the special needs of stroke patients and their families.

Purposes of the Association:

• Improving the quality of life of patients and their families - functionally, emotionally and socially.

• Increasing awareness to the frequency of the disease and to ways to prevent it and fight it.

• Influencing decision makers with the purpose of promoting solutions to stroke related issues.

The Association’s main activities:

• Operating social clubs around the country that serve as facilities for maintenance rehab treatment, for support and for improving abilities.

• Operating support and empowerment groups for supporting spouses.

• Operating a support and guidance center in Hebrew, Arabic and Russian: 077-4665213.

• Publishing the Association 's newspaper as well as a website (www.neeman.org.il) and a Facebook page - www.facebook.com/neeman.org?fref=ts

• Influencing state institutions, Knesset committees, HMO's and other entities to promote stroke medicine and the welfare of the patients and their families.

The Neeman Association is the only association that promotes the welfare of stroke patients and their families, and increases public awareness to this serious disease and its prevention.
The Society for Patients Rights: assists in utilizing patients’ rights at the HMO’s and the health system
03-602-2934 | www.patients-rights.org

The Speech Therapist Association: information about treatment programs in the community
03-9217815 | POB 2848 Petah Tikva 49127

Service for the Elderly: at the Department of Social Services (Welfare) – associations for the elderly - 03-6144444

Eyal – Israeli Epilepsy Association: 02-5000183 | epilepsy.il@gmail.com

Bizchut – Israel Human Rights Center for People with Disabilities: 02-6521308 | www.bizchut.org.il

Daat – public information center on health: 02-64445000 | daat@yadsarah.org.il

National Insurance Institution: national call center 1-222-6050
www.btl.gov.il | info@yadsarah.org.il

Israel Pain Association: for information about pain clinics in Israel: www.ipa.org.il/clinic

The national Institution for the Rehabilitation of the Brain Injured: www.neuropsy.co.il

“Reuth – Eshel” Information Center: provides information about rehab, nursing and geriatrics 1-770-700-204 | www.reuth.org.il

Milbat: the israeli center for physical aids, construction and transportation for the disabled – provides personal professional advice for selecting suitable physical aids for every area of function. At the display center at the Tel Hashomer Hospital, you can personally trial a wide variety of physical aids. www.milbat.org.il

The Adler Aphasia Center - a center for the long term treatment of aphasia
020-6291309 | www.hadassah.ac.il
aphasia-cent@hadassah.ac.il

NHTSA – the Health Ministry's National Highway Traffic Safety Administration:
04-8633555 | 15A Palyam Street, 20th floor, Haifa 03-5634702 | 12 Ha'arbaa Street, Tel Aviv

Karten – Institute of Computer Technology Uses: adjusting the computer environment to people with disabilities, hardware and software
03-9190767 | www.keren.org.il

Access Israel: www.aisrael.org


Ezra LeMarpeh – rehab day center: day center operated by Rabby Firer. Conditional upon utilizing all medical rights.
03-5777021 | www.ezra-lemarpe.org

The Eshel Association: Eshelinfo database
www.eshelinfo.org.il

The Ezer Mizion Organization: www.ami.org.il

The Yad Sarah Association: lending medical and rehab equipment - *6444. Dental treatments for patients confined to their homes, legal counsel for people over 60, in collaboration with Yad Riva.

HMO’s, home treatment units

Clalit Health Services: 1-700-707-700
www.clalit.org.il

Maccabi Health Services: 1-700-50-53-53
www.maccabi-health.co.il

Leumit: 1-700-507-507 | www.leumit.co.il

Meuhedet: 1-222-3833 | 03-5303739
www.meuhedet.co.il
EPILOGUE

We know that despite the serious crisis you and your family are experiencing as a result of the stroke, life has not ended.

Only through everyone's combined efforts and by enlisting all of your mental resources and power and those of your family, the medical staff and the community around you, will you be able to win this long and difficult battle. Every person has their own victory. No two cases are the same, and each case is unique. However, one thing is common to all of us - the brotherhood of fellow sufferers.

It is extremely important to begin a healthy lifestyle and strictly follow the directions of doctors and other professionals in order to prevent the next stroke. It is possible.

In this booklet we tried to provide you with the information required in order to understand the causes of a stroke, and increase awareness to the ways to prevent it or reduce its damage and to methods of rehab at every stage, from the first hospitalization to successful assimilation in the community.

We invite everyone who has the willingness and ability, to join our volunteers in promoting the Association's purposes and activities - and thus contribute to improving everyone's quality of life.

Even if you are currently unable to join the Association's activities, we would really appreciate it if you expressed your support by joining the “Friends of Neeman” to back up our efforts and activities.

We wish you a successful journey back to happiness and health.

✔ By credit card or credit card standing order - through the Neeman website: www.neeman.org.il

✔ Bank transfer to the Association's bank account
  Neeman Association
  Bank Leumi
  Neve Sha'an'an Branch, 882
  Address:
  36 Neve Hagilboa Street,
  Haifa
  Account number: 422113/39

✔ By telephone: 03-5331566
So you’re being released home after a stroke, and so many questions are still awaiting an answer: am I entitled to rehab? How do I get assistance at home? How do I readjust the apartment? How many physical therapy treatments will I receive from the HMO? How will my family adjust to this new reality? And many more.

If you feel you are in need of good advice, guidance and additional information, the Ne’eman Association’s volunteers lend a hand to stroke survivors on their way back home. They will be happy to assist you and make things easier for you in the first stages of coping with the consequences of the stroke, and provide you with advice in the following areas:

- Assistance and information on utilizing patients’ rights with the various authorities
- Adjusting the home and making it accessible
- Physical aids
- Driving and mobility
- Familiarity with the various community services

For additional information and to set an appointment with one of our volunteers, please contact Shulamit the director of our support line at: 077-4665213 or shuliro@zahav.net.il.

We wish you the best of health,
The volunteers
Notes...
OUR MAIN ACTIVITIES:

- Operating social clubs
- Support groups for spouses
- Support and guidance center
  077-4665213
- Promoting stroke medicine

We invite anyone who is willing and able, to join our volunteers and assist in promoting the Association’s goals, so as to improve everyone’s quality of life.