

INFORMATION/EDUCATION PAGE

Empowering Stroke Survivors: Understanding The Role of Multidisciplinary Rehabilitation

Effect of stroke

Stroke is 1 of the leading causes of disability worldwide, with someone having a stroke every 40 seconds in the United-States.¹ A stroke can occur by clot that interrupts blood flow in the brain. It can also be caused by a burst of a blood vessel that causes bleeding in the brain. There are also other unknown causes of stroke which occur less frequently. A stroke causes brain cells to die as they no longer receive oxygen and nutrients from the blood. Some of the most common risk factors of stroke are high blood pressure, high cholesterol, heart diseases, diabetes, smoking, physical inactivity, and obesity.² Unfortunately, 1 in 3 adults has at least 1 of these conditions or habits.¹

It is crucial to recognize the early signs of stroke. Remember **F.A.S.T** which stands for

F = Face drooping—Does 1 side of the face droop or is it numb? Ask the person to smile. Is the person's smile uneven?

A = Arm weakness—Is 1 arm weak or numb? Ask the person to raise both arms. Does 1 arm drift downward?

S = Speech difficulty—Is speech slurred?

T = Time to call 911

The effect of stroke is different for each person. Stroke can cause

- muscle weakness or loss of sensation on 1 side of the body
- difficulty walking
- loss of balance
- problems with vision
- memory or attention loss or confusion

- fatigue or lack of energy/drive
- mood changes, depression, and anxiety
- sexual dysfunction
- difficulty with bladder and bowel control
- difficulty speaking or understanding speech.

Because of a stroke, your role and relations may change. The effects of stroke can have a negative effect on your daily activities and social life. These effects may persist for the rest of your life. Fortunately, rehabilitation can help minimize the effect of stroke.

This information/education page was written to help people with stroke and their loved ones. It shows the role and benefits of multidisciplinary rehabilitation team members, and how they can help in your recovery from stroke.

How can a multidisciplinary rehabilitation team help your recovery after stroke?

- Stroke management and rehabilitation are complex. It often involves the coordinated effort of a team of health care professionals.
- Unlike traditional care, multidisciplinary rehabilitation gathers health professionals who have complementary knowledge and skills to address your needs.
- The multidisciplinary stroke team works together to help you achieve your rehab goals and provide therapy, guidance, and support.^{3,4}
- The multidisciplinary stroke team will empower you to continue your recovery at home.
- Each team member contributes their expertise to help improve your recovery, your

health (physical and mental), and your quality of life.

- A multidisciplinary stroke team will evaluate your health, your physical, cognitive, and emotional function, as well as your ability to do the activities you want and need to do.
- To meet your needs, the multidisciplinary team will meet frequently to discuss your progress and a personalized plan will be developed. This will help to avoid care fragmentation.
- When a team of stroke specialists works together, people with stroke can reach their maximum potential and live longer and better.^{5,6}
- To achieve better outcomes, there needs to be clear and consistent communication between you, your loved ones, and stroke team members.⁷
- Anticipated benefits may include coordinated care, better communication with team members, and rehabilitation outcomes.
- The American Heart Association and American Stroke Association strongly recommend the sustained and coordinated efforts of a multidisciplinary team to maximize the recovery of stroke survivors.⁸

Who is the multidisciplinary stroke rehabilitation team?

- You, your family, and friends are at the center of this team.
- Generally, the team also include doctors (physicians, neurologist, physiatrist), nurses, physical and occupational therapists, speech-language pathologists, social workers, dietitians/nutritionists, psychologists/neuropsychologist, and vocational therapists.
- Additional team members can also join when needed, such as integrative health clinicians (ie, massage, biofeedback, meditation), specialized educators, recreational therapists, care managers, mental health professionals, orthotists/prosthetist, and others (fig 1).
- The makeup of our multidisciplinary team will depend on your needs and the services

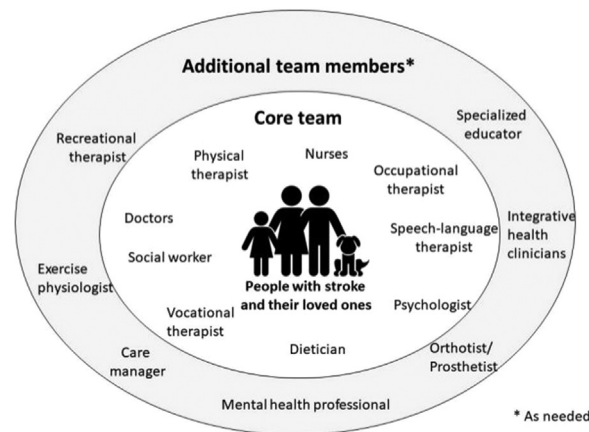


Fig 1 Multidisciplinary stroke team.

available in your community. You may not require all the specialists described above.

- There may be some overlap in the treatment approaches or support provided to you by different members of the multidisciplinary team (table 1).

What will you learn during your rehabilitation?

- You can start rehabilitation in the acute-care hospital once your condition has stabilized. This is often possible within 48 hours after the stroke.
- In the beginning, your rehabilitation will focus on helping you be safe and independent in ability to complete basic needs, mobility, communicate, and moving around your home.
- The rehabilitation team will help you with exercises and activities to increase movement and use of your arms and legs.
- You will learn how to sit up and move between the bed and a chair to standing and walking safely, with or without assistance.
- As you progress with your rehabilitation, you will learn how to gradually increase your physical activity and manage any physical fatigue. Low to moderate intensity physical activity is recommended after stroke.⁹
- The rehabilitation team will help you to cope with difficulties with mood, attention, and memory as well as understanding language.
- You will learn the type of food and drinks to consume and how to eat and swallow safely.

Table 1 Everyone plays a part in rehabilitation

Multidisciplinary Team Members	Roles
<p>Stroke survivor Stroke rehabilitation aims to make you as independent as possible and works best if you collaborate with the team to set goals and make decisions.</p>	<p>You can help your recovery by</p> <ul style="list-style-type: none"> ◦ sharing information about yourself with the team such as your background (work, hobbies, activities you like), your living situation, the support available to you, and your own goals; ◦ working with the team to determine a list of difficulties and set goals that are achievable; ◦ maintaining a healthy lifestyle including a healthy diet and exercise to reduce the risk of another stroke; ◦ staying motivated and continue working hard during your recovery process.
<p>Caregiver Family and friends play a very important role in the stroke rehab process.</p>	<p>Caregivers may help you by</p> <ul style="list-style-type: none"> ◦ providing assistance with your personal care, housework and transportation; ◦ managing your financial, legal and business affairs; ◦ coordinating your health care; ◦ providing emotional support; ◦ promoting a healthy lifestyle.
<p>Physician/Neurologist/Physiatrist/Ophthalmologist A physician is a medical doctor who is trained to manage and coordinate your long-term care, provide medications, and recommend the best forms of stroke rehabilitation for you. Medical specialists include: Neurologists—specialist in diseases of the brain and nervous system, Physiatrists—specialist in physical medicine and rehabilitation, Ophthalmologists—specialist in eye problems</p>	<p>The roles of your doctor include</p> <ul style="list-style-type: none"> ◦ helping you implement lifestyle changes such as diet, cigarette smoking cessation to prevent another stroke; ◦ managing post-stroke symptoms such as shoulder pain, fatigue, or muscle stiffness; ◦ preventing or managing other medical complications such as seizures.
<p>Rehabilitation Nurse A rehabilitation nurse is a nurse who specializes in helping stroke survivors attain and maintain maximum function throughout your rehabilitation.</p>	<p>The roles of a rehabilitation nurse include</p> <ul style="list-style-type: none"> ◦ working closely with you and your family during all stages of recovery both in and out of the hospital; ◦ providing you with information about your medication schedule; ◦ educating you on how to lower the risk of another stroke such as controlling your high blood pressure and diabetes.

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Table 1 (Continued)

Multidisciplinary Team Members	Roles
<p>Physical therapist/Physiotherapist A physical therapist is trained in treating disabilities related to movement, balance, and sensory problems after stroke.</p>	<p>The roles of a physiotherapist include</p> <ul style="list-style-type: none"> ◦ help you improve your physical function and mobility; ◦ helping you restore movement and sensation of your arm and leg, balance and coordination and also help you retain those skills you have recovered; ◦ teaching you how to use mobility aids, such as canes, walkers, or wheelchairs so that you can move around safely.
<p>Occupational Therapist An occupational therapist is trained to help individuals with stroke resume or maintain participation in a variety of activities.</p>	<p>The roles of an occupational therapist include</p> <ul style="list-style-type: none"> ◦ working with you to resume your daily activities and social participation, across your self-care, productive, and leisure roles and improve your independence in everyday life; ◦ helping you make changes in your home and environment so that it is safe and accessible; ◦ helping you find strategies to manage your physical and cognitive (thinking and reasoning) difficulties to accomplish everyday activities.
<p>Speech and Language Pathologist A speech and language pathologist is trained to treat people with communication problems (speaking, understanding, reading, and writing) after stroke.</p>	<p>The roles of a speech and language pathologist include</p> <ul style="list-style-type: none"> ◦ helping you to improve speech; ◦ developing alternative communication strategies if your speech is affected; helping you to improve your problem solving and thinking skills to enhance communication during everyday interactions. ◦ assessing your difficulty swallowing and advising on the best way to help you swallow safely.
<p>Dietician/Nutritionist A dietician/nutritionist is trained to address the nutritional needs.</p>	<p>The roles of a dietician/nutritionist include</p> <ul style="list-style-type: none"> ◦ assessing your individual nutritional requirements; ◦ helping you change your food habits that can help reduce your risk factors for another stroke; ◦ when appropriate, adapting foods to make them safe for you to eat.

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Table 1 (Continued)

Multidisciplinary Team Members	Roles
<p>Psychologist/Neuropsychologist A psychologist/neuropsychologist is trained to address changes in behavior, thinking, and reasoning resulting from brain injuries such as stroke.</p>	<p>The roles of a psychologist/neuropsychologist include</p> <ul style="list-style-type: none"> ◦ evaluating problems with your thinking, emotions, or behavior; ◦ carrying out therapeutic interventions to help you manage your emotions, mood, and thinking; ◦ advising you on coping strategies.
<p>Social Worker A social worker is trained to provide psychosocial support to you and your family to help you re-integrate into society after stroke.</p>	<p>The roles of a social worker include</p> <ul style="list-style-type: none"> ◦ planning your return to home or to a new living place after discharge; ◦ supporting your financial decisions and seeking out financial aid to meet your health-related needs; ◦ helping you to cope with changes in your personal relations, parenting, return to work/school, and driving.
<p>Vocational Therapist A vocational therapist has special training to help people with a disability such as stroke to find a job or career.</p>	<p>The roles of a vocational therapist include</p> <ul style="list-style-type: none"> ◦ assessing your ability to return to work/school; ◦ identifying your residual disabilities and vocational strengths; ◦ adapting to your previous job or identify potential new employers.
<p>Orthotist/Prosthetist An orthotist is trained to make and fit braces and splints to provide additional support to body parts affected by conditions such as stroke. A prosthetist is trained to make and fit artificial limbs.</p>	<p>The roles of an orthotist/prosthetist include</p> <ul style="list-style-type: none"> ◦ assessing the support that your arm, hand, and leg need to carry out tasks ◦ prescribing, designing, and fitting the braces, splints, or artificial limbs tailored for your needs such as ankle-foot-orthoses ◦ improving movement and function such as walking.

- Rehabilitation may be required for several months or years after stroke during which you may gradually improve with time. Do not be discouraged if your recovery is slow; instead keep working toward your goals every day. Every small progress matters.

Where can you access multidisciplinary stroke rehabilitation?

- In-patient rehabilitation: While you are in hospital after your stroke, you can participate in intensive program that may include multiple hours of rehabilitation a day, for multiple days a week.

- Outpatient rehabilitation: Once you are safe to return home, you can continue your rehab at an outpatient clinic at a local hospital or a rehabilitation center. Rehabilitation may involve several hours, at the center, where you'd participate in coordinated therapy sessions throughout day. This gives you access to multidisciplinary stroke rehabilitation within the same center.
- Home-based rehabilitation program: This will allow you to practice skills and develop compensatory strategies within your own living environment. You may need to participate in therapy several hours per week either by yourself or through telerehabilitation.

Authorship

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Keywords

Stroke; Multidisciplinary; Rehabilitation

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