



“Great **results** come
from small actions
repeated every day.”

TOP 10 EVIDENCE-BASED STRATEGIES FOR **LOWER LIMB RECOVERY**

Developed from the latest research and **expert insights from scientists worldwide**, this guide provides practical, evidence-based strategies to help rebuild lower limb strength, improve balance, and support walking recovery after stroke.

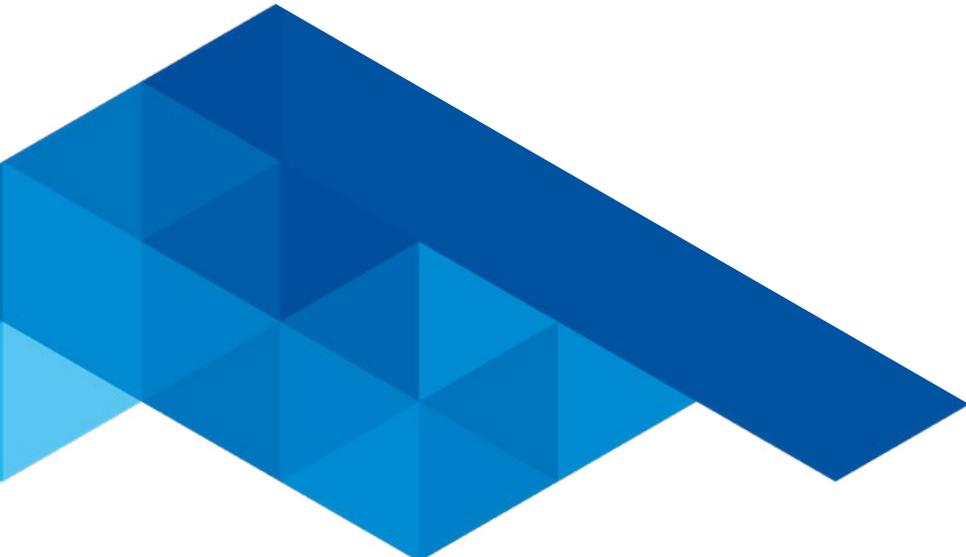


No Plateau in Sight®

A MESSAGE FROM THE CLINICAL TEAM AT SAEBO

Recovery is a journey, and **every small action matters**. At Saebo, we help stroke and brain injury survivors reclaim movement, confidence, and independence. Our guide shares the most effective, evidence-based strategies for improving lower limb function, balance, and walking ability. Whether you're early in recovery or continuing to make progress, these strategies are designed to support meaningful movement and renewed independence.

Let's keep moving forward—**together**.

A large, abstract graphic on the left side of the page, composed of various shades of blue triangles and polygons, creating a 3D effect of stacked blocks or a mountain range.

Top 10 Proven Recommendations from Experts Around the World

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Intervention and Usage Chart

A Guide to Saebo Products for Post-Stroke Recovery

No.	Intervention	Explanation	Saebo Solution	Usage Recommendation
1	Ankle-Foot Orthosis (AFO)	Often called an AFO, a foot drop orthotic provides external support to compensate for weakened or paralyzed muscles that normally lift the front of the foot during walking.	SaeboStep	Use throughout the day. The front cord on the Saebo-Step can be easily loosened when resting or stationary if needed.
2	FES	When stimulation is used to assist with a task—such as lifting the foot during walking—it is called Functional Electrical Stimulation (FES).	SaeboStim Pro (Using the trigger button)	For targeted gait rehab (using trigger button): 30 minutes per day
3	NMES	Neuromuscular Electrical Stimulation (NMES) activates muscles using electrical impulses when a specific movement or task is not being performed, helping support muscle strengthening and activation.	SaeboStim Pro or SaeboStim One	30 minutes per muscle daily
4	Task-Oriented Gait Training	Focuses on practicing real-world walking activities such as walking on different surfaces, navigating inclines, stepping over obstacles, or climbing stairs.	SaeboStep can be combined if foot drop limits walking ability	Practice 30–60 minutes, 3–5 times per week
5	Strengthening	Strengthening the leg muscles improves control, walking ability, and stability while reducing the risk of trips and falls.	Consider if voluntary movement is limited SaeboStim One SaeboStim Pro	30 minutes per muscle daily



Intervention and Usage Chart

A Guide to Saebo Products for Post-Stroke Recovery

No.	Intervention	Explanation	Saebo Solution	Usage Recommendation
6	Treadmill Training and Body Weight Support	A motorized treadmill allows high repetition of steps in a controlled environment that can be adjusted to the user's ability. Body weight support can assist individuals who are unable to walk independently, allowing safer treadmill practice.	SaeboStep can be combined if foot drop is limiting walking.	100s of repetitions. Can be done in small, frequent sessions throughout the day.
7	Aerobic Exercise	Regular aerobic activity improves cardiovascular health, strength, balance, and endurance while also supporting mood and overall quality of life.	Join a walking group, gym, or exercise class (consult a healthcare professional before returning to exercise).	Incorporate aerobic activity into your routine and gradually increase frequency, duration, and intensity as tolerated.
8	Mirror Therapy	Mirror therapy uses the reflection of the unaffected leg to create the illusion that the affected leg is moving normally, helping stimulate neuroplasticity and support motor recovery.	SaeboMirror Box	30 minutes per day, 5 days per week, for a minimum of 4 weeks
9	Exoskeletons	Wearable, battery-powered robotic devices that assist and guide leg movement during walking.	Typically used in specialized rehabilitation settings.	No universal dosage. Typically used during rehabilitation sessions (e.g., 3–5 times per week) or longer-term at home.
10	Sensory Rehab	Focuses on restoring or improving the ability to process and respond to sensory information, which supports safer and more coordinated movement.	SaeboStim Pro w/mesh garments SaeboMirror Box	Sensory stimulation: at least 30 minutes per day



RECOMMENDATION

#1: Ankle-Foot Orthosis (AFO)

Supporting proper foot position and stability improves walking after stroke.

What is it?

An ankle-foot orthosis (AFO) is a brace worn on the lower leg and foot that supports the ankle and helps maintain proper foot position and stability during walking.

Why this is Essential.

This support is essential because it helps keep the foot in a neutral position, reducing toe drag and lowering the risk of tripping or falling. By providing consistent assistance for foot drop, an AFO can improve stability and confidence during walking, make movement more efficient and less effortful, and promote better alignment and control at the knee and hip during daily mobility.

Saebo Product:

SaeboStep: A revolutionary, comfortable, and convenient solution for foot drop, this soft AFO is designed to support individuals with limited movement or weakness resulting from stroke, multiple sclerosis, neurological disorders, or nerve injury.



Usage Recommendation

Wear throughout the day for consistent support, and loosen the front cord when resting or stationary if needed.

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[Clinical Resource #3](#)

[Watch the StimOne video >>](#)



RECOMMENDATION

#2: Electrical Stimulation: FES

Provides dynamic support to improve walking safety and movement quality.

What is it?

Functional electrical stimulation (FES) uses small electrical impulses to activate the muscles that lift the foot during walking. The device senses when the leg swings forward and delivers stimulation at the right moment to help produce a more natural foot lift. In some cases, it can also assist with hip and knee control.

Why this is Essential.

FES can improve walking by lifting the foot to reduce toe drag and lower the risk of trips and falls. By stimulating the muscles at the right moment, it promotes a smoother, more efficient gait while increasing stability and confidence.

Saebø Products:

SaebøStim Pro: Two channels to allow stimulation of two muscles at the same time, wider variety of programs and electrode size choice for larger muscles. It is ideal for practicing tasks such as stepping and sit-to-stand with its trigger button giving you control over the timing of the stimulation.



Usage Recommendation

For targeted gait rehabilitation (using trigger button), use for at least 30 minutes per day.

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Note: The SaebøStim Pro image shown to the right features the device in a seated position; however, for this scenario, it is recommended for use during walking.



RECOMMENDATION

#3: Neuromuscular Electrical Stimulation (NMES)

NMES supports muscle health and prepares the body for movement and walking.

What is it?

Neuromuscular electrical stimulation (NMES) uses controlled electrical impulses to activate muscles when voluntary movement is limited or absent. By causing the muscles to contract in a targeted and repetitive way, NMES helps stimulate muscle activity even when you are not performing a specific movement or task.

Why this is Essential.

NMES supports rehabilitation by helping strengthen weakened muscles and move joints through their range of motion. The stimulation can also provide a gentle stretch to tight or stiff muscles, helping reduce stiffness and improve overall mobility. By maintaining muscle health and activation, NMES helps prepare the body for functional activities such as standing, walking, and gait training.

Saebo Products:

SaeboStim One: Wireless, simple, and easy to use with one pre-set NMES program designed to support muscle activation and strengthening.

SaeboStim Pro: Offers two stimulation channels, allowing two muscles to be activated at the same time. With a wider variety of programs and electrode size options, it also features a trigger button that lets you control when stimulation turns on and off—making it ideal for practicing functional movements and exercises.



Usage Recommendation

Use for at least 30 minutes per muscle each day to support muscle activation, strength, and overall recovery.

Read the Research >>

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[Clinical Resource #3](#)

[Watch the video >>](#)



RECOMMENDATION

#4: Task-Oriented Gait Training

Promotes more natural, functional walking by training real-world movements.

What is it?

Task-oriented gait training focuses on practicing real-world walking activities to improve mobility and independence. Examples include walking on different surfaces, stepping over obstacles, turning, or climbing stairs. The focus is on practicing movements that mirror everyday walking.

Why this is Essential.

This approach helps train the brain and body together by practicing the types of walking tasks needed in daily life. Repeating meaningful, goal-oriented movements promotes neuroplasticity, which can support recovery and improve walking ability.

Saebo Product:

SaeboStep: A comfortable, and convenient solution for foot drop, this soft AFO is designed to support individuals with limited movement or weakness resulting from stroke, multiple sclerosis, neurological disorders, or nerve injury.



Usage Recommendation

Practice for 30–60 minutes, 3–5 times weekly to support consistent progress and improve walking function.

Read the Research >>

[Clinical Resource #1](#)

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[Clinical Resource #3](#)



RECOMMENDATION

#5: Strengthening

Builds a stronger, more stable foundation for walking and daily movement.

What is it?

Strengthening focuses on improving a muscle’s ability to generate force. This is done through targeted exercises that activate weak muscles, often against resistance such as weights, gravity, or a resistance band. Strength training can be adapted to different ability levels and recovery stages.

Why this is Essential.

Strengthening key muscles in the legs helps improve control, stability, and walking efficiency. It can also reduce the risk of trips and falls while supporting safer transfers, sit-to-stand movements, bed mobility, and greater overall independence.

Saebo Products:

SaeboStim One: Wireless, simple, and easy to use with one pre-set NMES program designed to support muscle activation and strengthening. Pictured left below.



SaeboStim Pro: Offers two stimulation channels, allowing two muscles to be activated at the same time. It enables you to focus on improving gait quality and efficiency without foot drop getting in the way.



Usage Recommendation

Use NMES for 30 minutes per muscle each day to support strengthening and muscle activation.

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[Clinical Resource #3](#)



RECOMMENDATION

#6: Treadmill Training (With or Without Body Weight Support)

Treadmill training provides the repetition needed to improve mobility and recovery.

What is it?

Treadmill training involves walking on a motorized treadmill to allow repetitive stepping in a controlled environment. For individuals with reduced mobility, body weight support can be added to improve safety and assist with stepping, helping promote a more natural walking pattern.

Why this is Essential.

Treadmill training provides intensive, task-specific practice with a high number of step repetitions. The controlled setting allows individuals to focus on gait quality, efficiency, and consistency while receiving support if needed to initiate or maintain stepping. This approach helps retrain walking patterns following neurological injury, such as stroke, and supports improvement.

Saebo Product:

SaeboStep: A comfortable solution for foot drop, the Saebo Step soft AFO can be used during treadmill training to help lift the foot and reduce toe drag when weakness limits walking. It provides supportive assistance that helps make stepping safer and more consistent during gait practice.



Usage Recommendation

Perform treadmill training at 60–85% heart rate reserve (adjusting speed or incline as needed) for at least 40 minutes, three times per week, for 10 weeks.

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RECOMMENDATION

#7: Aerobic Exercise

Boosts cardiovascular health and supports overall recovery.

What is it?

Aerobic exercise is a form of physical activity that raises your heart rate and breathing to improve overall cardiovascular health and support brain recovery.

Why this is Essential.

Aerobic exercise improves cardiovascular fitness, lowers blood pressure, enhances strength and balance, boosts mood, and elevates overall quality of life—all benefits supported by research in people recovering from stroke.



Saebo Guidance:

Join a walking group, gym, or exercise class suitable to your ability. Seek professional guidance to return to exercise if required. If you are less mobile, consider a seated exercise group in the community or online from your own home.

Saebo has an [exercise guide](#) online, as does the [American Stroke Association](#).

Aerobic activity can be introduced at any point during your recovery journey, and can continue for many years later.



Usage Recommendation

Try to incorporate it into your daily routine for longer lasting benefits. Gradually increase frequency, time, and intensity as able.

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[Clinical Resource #2](#)

[Clinical Resource #3](#)



RECOMMENDATION

#8: Mirror Therapy

Mirrors “trick” the brain into re-wiring, improving leg function.

What is it?

Mirror therapy uses the reflection of the unaffected leg to create the visual illusion that the affected leg is moving normally. This visual feedback helps the brain relearn movement patterns and can promote neuroplasticity during recovery.

Why this is Essential.

The visual feedback, combined with attempts to move the affected leg, can stimulate the brain’s neuroplasticity. This process helps the brain reorganize and relearn movement patterns, supporting improved motor recovery.

Saebo Product:

SaeboMirror Box: Designed for lower limb, mirror therapy allows the reflection of the unaffected foot/leg to create an illusion that the affected leg is moving. Using mirror therapy can keep sensory-motor networks active while more direct sensory retraining is gradually introduced. Mirror therapy can also be combined with NMES or sensory stimulation (using the [SaeboStim Pro](#)) to further support recovery.



Usage Recommendation

Practice for 30 minutes per day, 5 days per week, for a minimum of 4 weeks to support consistent progress.

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[Clinical Resource #3](#)



RECOMMENDATION

#9: Exoskeletons

Supports intensive gait training for individuals who need assistance with walking.

What is it?

Wearable, battery-powered robotic devices that provide adjustable assistance to support and guide leg and trunk movement during walking.

Why this is Essential.

By providing motorized assistance, these devices enable high-intensity, repetitive gait practice—an important driver of neuroplasticity. They can help retrain walking patterns, improve mobility and balance, and increase independence, especially for individuals who require assistance to walk.

Saebot Guidance:

Robotic exoskeletons are typically used in specialized rehabilitation settings for individuals who require significant assistance with walking. A rehabilitation professional can help determine if this technology is appropriate and how it fits into a recovery program. Many individuals can also benefit from combining other strategies—such as task-oriented gait training, strengthening, or foot drop support—to improve walking and mobility over time.



Usage Recommendation

There is no universal dosage. These devices are typically used within rehabilitation sessions (e.g., 3–5 times per week) or may be used longer-term at home as part of an ongoing walking program.

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RECOMMENDATION

#10: Sensory Rehabilitation

Improves sensation to support safer, more coordinated movement.

What is it?

Sensory retraining is a rehabilitation approach that helps restore the brain's ability to process and interpret sensory information through techniques such as electrical stimulation and exposure to different sensations.

Why this is Essential.

Accurate sensory feedback is important for coordinated, safe movement. When sensation is reduced or altered, balance, walking, and everyday tasks can become more difficult. Sensory retraining helps stimulate neuroplasticity, support motor recovery, reduce the risk of injury, and improve overall independence.

Saebo Products:

These tools can be used individually or together to support muscle activation, sensory retraining, and movement practice during rehabilitation.

SaeboStim Pro: Delivers a pre-set sensory stimulation programme that provides targeted input to the foot—helping improve sensory awareness, enhance balance and gait quality, support weight-bearing, and prime the brain for motor recovery.

SaeboMirror Box: Designed for lower limb mirror therapy, Mirror Box allows the reflection of the unaffected foot/leg to create an illusion that the affected leg is moving normally.



Usage Recommendation

Use sensory stimulation for at least 30 minutes per day to support sensory retraining and recovery.

Read the Research »

[Clinical Resource #1](#)

[Clinical Resource #2](#)

[Clinical Resource #3](#)



No Plateau in Sight®

For every step of your recovery journey, there's more support waiting for you. Explore our website to find guides, tips, and tools designed to help you regain strength, improve function, and stay motivated.

From expert advice to inspiring stories from fellow stroke survivors, these resources can empower you to take charge of your rehabilitation and reach your goals.

Scan for the
Guide PDF >>



CLINICAL EVIDENCE:

[National Clinical Guideline for Stroke for UK and Ireland](#)

[Australian and NZ Clinical Guidelines for Stroke Management](#)

[Canadian Stroke Best Practice Recommendations](#)

[Rehabilitation Interventions for Upper Limb Function in the First Four Weeks Following Stroke: A Systematic Review and Meta-Analysis of the Evidence](#)

[Heart and Stroke Foundation Canada](#)

[European Stroke Organisation Guidelines on Motor Rehabilitation](#)