

Recreation Therapy Stroke Protocol Series

“There are more than 400,000 Canadians living with long-term disability from stroke, and this number will almost double in the next 20 years. The effects range from mild to severe disability, and can be obviously physical limitations or more subtle such as memory changes. Recovery can take months or years, even for milder strokes, and many people never fully recover.”

2017, Heart & Stroke¹

This first of its kind document is a result of the hard work of various Recreation Therapy and Stroke professionals including individuals from the Recreation Therapy Stroke Professionals Network of the Southwestern Ontario Stroke Network, Georgian College, St. Thomas Elgin General Hospital, Woodstock General Hospital, and the Chatham-Kent Health Alliance.

The need for evidence based recreation therapy has increased as the needs of our clients are becoming continually complex. Evidence based practice (EBP) across professions is known to improve quality of care, provide continuity of care, improve health outcomes, as well as, act as a cost savings measure. EBP provides an opportunity for Recreation Therapists to provide their clients with interventions that are rooted in research. These protocols should be used together with the therapeutic process, and our professional standards of practice.

This document is a compilation of student work from the Georgian College Therapeutic Recreation Post Graduate program which has been vetted by Faculty and professional Recreation Therapists currently working in the field. All of the program protocols were created by the student authors and include research evidence to justify their validity. As always, it is up to you as the Recreation Therapist to use these and other protocols as a tool to create positive change for your individual clients. These protocols, coupled with further research and your clinical judgment should align your clients well for success in their health goals.

This is a living document that will continue to grow and evolve. The committee plans to invite Recreation Therapists on an annual basis, to submit evidence based protocols for consideration for inclusion in this valuable resource. This invitation will occur every February to coincide with both Therapeutic Recreation Awareness Month and Heart and Stroke Month.

We encourage you provide us with feedback or suggestions for protocols for inclusion in future editions of this publication. Feedback can be provided by emailing swosn@lhsc.on.ca .

¹Heart and Stroke. (2017). Stroke Report. Retrieved from <https://www.heartandstroke.ca>

Program Protocol – Yoga for Stroke
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Statement of Purpose:

- To increase the clients' physical, emotional and spiritual wellbeing through deep breathing, chanting, meditation and yoga movements

Program Description:

- Combination of breathing techniques, meditation and yoga to increase the clients' balance, coordination, emotional and spiritual wellbeing
- Movements and techniques will be taught and demonstrated by the facilitator and then practiced by clients with guided support
- There will be a gradual increase of physical demands as well as adaptations for every skill level of each client
- Program will be facilitated in a relaxing and safe atmosphere that promotes a client's wellbeing

Client Needs Program will Address:

- Lack of balance and coordination
- Distressed or distraught frame of mind (disharmony emotionally, spiritually)
- Lack mindful body awareness and new skill level

Selection/Referral Criteria:

- Between ages of 25-60 who have suffered a stroke
- Required to be mobile; mobile with an assistive device is okay
- Cognitively able to answer questions and follow the directions of the instructor
- Offered to outpatient participants living in the community

Contradicted Criteria:

- Poor balance
- Impaired cognition
- Poor bladder control
- Severe medical conditions

Program Outcomes (goals):

- Increased sense of body awareness; heightened connection between the body and mind
- Clients will realize the movements they can or cannot do as well as the positions they can or cannot hold
- Improve endurance of clients through walking
- Improve balance and coordination of clients
- Reduce perceived pain and/or stress

Content and Process:

Session 1

CONTENT	PROCESS
Administer Feelings Evaluation	The instructors will pass around an evaluation sheet that will access the client's emotions, feelings and pain that they are experiencing before the session.
Breathing (Savasana)	The clients should be in a comfortable position that works best for them. Clients who can, should lie down in corpse pose (supine position) and those who cannot should be in a seated position either in their mobility device or on the floor with their backs against the wall. Clients should close their eyes, clear their minds and focus on breathing in and out through their nose. Clients are encouraged to breathe deeper and more prolonged.
Joint Movements and Simple Exercises	All clients can move to a seated position with the option of having their backs against the wall. The instructor will focus on movements of joints. Starting with flexing and bending toes and feet. Move to rotating the ankles in both directions. Clients will then flex and bend fingers. Rotation of the wrists will follow. All movements will be slow and gradual. Finish with limited and gentle neck movements but avoiding up and down movements.
Mindful Walking	With the aid of the instructor, clients will walk six steps very slowly, placing their heels first and then toes. Other clients in program will continue with joint movements or focusing on their breathing while waiting for their turns.
Meditation	Clients will return to either the corpse position or the seated position to focus on bringing their breath back to normal. Clients should concentrate on their breath going in and out of their noses to relax.
Chanting	Chant A-kara 9 times (hips to toes). Chant U-kara 9 times (shoulders to stomach). Chant MA-kara 9 times (neck and head). Chant A-U-M 9 times (toes to head).
Administer Feelings Evaluation	The instructor will pass around the same evaluation sheet at the end of the session that the client's filled out at the beginning of the session.

Session 2

CONTENT	PROCESS
Administer Feelings Evaluation	The instructors will pass around an evaluation sheet that will access the client's emotions, feelings and pain that they are experiencing before the session.
Breathing (Savasana)	The clients should be in a comfortable position that works best for them. Clients who can should lie down in corpse pose (supine position) and those who cannot should be in a seated position either in their mobility device or on the floor with their backs against the wall. Clients should close their eyes, clear their minds and focus on breathing in and out through their nose. Clients are encouraged to breathe deeper and more prolonged.
Joint Movements	All clients can move to a seated position with the option of having their backs against the wall. The instructor will focus on movements of joints. Starting with flexing and bending toes and feet. Move to rotating the ankles and knees in both directions. Clients will then flex and bend fingers. Rotation of the wrists, elbows and shoulders will follow. All movements will be slow and gradual. Finish with limited and gentle neck movements but avoiding up and down movements.
Mindful Walking	With the aid of the instructor, clients will walk eight steps very slowly, placing their heels first and then toes. Other clients in program will continue with joint movements or focusing on their breathing while waiting for their turns.
Meditation	Clients will return to either the corpse position or the seated position to focus on bringing their breath back to normal. Clients should concentrate on their breath going in and out of their noses to relax.
Chanting	SO-HAM chanting to increase meditative awareness.
Administer Feelings Evaluation	The instructor will pass around the same evaluation sheet at the end of the session that the client's filled out at the beginning of the session.

Session 3

CONTENT	PROCESS
Administer Feelings Evaluation	The instructors will pass around an evaluation sheet that will access the client's emotions, feelings and pain that they are experiencing before the session.
Breathing (Savasana)	The clients should be in a comfortable position that works best for them. Clients who can should lie down in corpse pose (supine position) and those who cannot should be in a seated position either in their mobility device or on the floor with their backs against the wall. Clients should close their eyes, clear their minds and focus on breathing in and out through their nose. Clients are encouraged to breathe deeper and more prolonged.
Joint Movement	Clients should go through learned joint movements a few times to warm up either sitting or standing.
Mindful Walking	With the aid of the instructor, clients will walk ten steps very slowly, placing their heels first and then toes. Other clients in program will continue with joint movements or focusing on their breathing while waiting for their turns.
Yoga Poses	The instructor will take clients through the following poses: Mountain Pose Upward Salute Pose Staff Pose
Meditation	Have clients focus on breathing but also on the specific areas that are affected on their bodies. Have clients imagine the energy flowing in one part of the affected area and out another.
Chanting	Chant A-kara 9 times (hips to toes). Chant U-kara 9 times (shoulders to stomach). Chant MA-kara 9 times (neck and head). Chant A-U-M 9 times (toes to head).
Administer Feelings Evaluation	The instructor will pass around the same evaluation sheet at the end of the session that the client's filled out at the beginning of the session.

Session 4

CONTENT	PROCESS
Administer Feelings Evaluation	The instructors will pass around an evaluation sheet that will access the client's emotions, feelings and pain that they are experiencing before the session.
Breathing (Savasana)	The clients should be in a comfortable position that works best for them. Clients who can should lie down in corpse pose (supine position) and those who cannot should be in a seated position either in their mobility device or on the floor with their backs against the wall. Clients should close their eyes, clear their minds and focus on breathing in and out through their nose. Clients are encouraged to breathe deeper and more prolonged.
Joint Movement	Clients should go through learned joint movements a few times to warm up either sitting or standing.
Mindful Walking	With the aid of the instructor, clients will walk 12 steps very slowly, placing their heels first and then toes. Other clients in program will continue with joint movements or focusing on their breathing while waiting for their turns.
Yoga Poses	Working through last week's poses, Mountain Pose Upward Salute Staff Pose The instructor will also add the following: Seated Forward Bend Pose Chair Pose
Meditation	Have clients focus on breathing but also on the specific areas that are affected on their bodies. Have clients imagine the energy flowing in one part of the affected area and out another.
Chanting	SO-HAM chanting to increase meditative awareness.
Administer Feelings Evaluation	The instructor will pass around the same evaluation sheet at the end of the session that the client's filled out at the beginning of the session.

Session 5

CONTENT	PROCESS
Administer Feelings Evaluation	The instructors will pass around an evaluation sheet that will access the client's emotions, feelings and pain that they are experiencing before the session.
Breathing (Savasana)	The clients should be in a comfortable position that works best for them. Clients who can should lie down in corpse pose (supine position) and those who cannot should be in a seated position either in their mobility device or on the floor with their backs against the wall. Clients should close their eyes, clear their minds and focus on breathing in and out through their nose. Clients are encouraged to breathe deeper and more prolonged.
Joint Movement and Mindful Walking	While clients are warming up with their learned joint movements, clients will also participate in mindful walking with the aid of the instructor. Clients will walk 16 steps very slowly, placing their heels first and then toes. Other clients in program will continue with joint movements or focusing on their breathing while waiting for their turns.
Yoga Poses	Using chairs to help support clients who can stand, the instructor will take the class through a series of standing poses. Warrior I & II Pose Extended Side Angle Pose
Meditation	Clients should focus on breathing in and out and energies flowing through the affected areas of the body. Clients should also close their minds to the stress of their lives and the complications of their stroke.
Chanting	Chant A-kara 9 times (hips to toes). Chant U-kara 9 times (shoulders to stomach). Chant MA-kara 9 times (neck and head). Chant A-U-M 9 times (toes to head).
Administer Feelings Evaluation	The instructor will pass around the same evaluation sheet at the end of the session that the client's filled out at the beginning of the session.

Session 6

CONTENT	PROCESS
Administer Feelings Evaluation	The instructors will pass around an evaluation sheet that will access the client's emotions, feelings and pain that they are experiencing before the session.
Breathing (Savasana)	The clients should be in a comfortable position that works best for them. Clients who can should lie down in corpse pose (supine position) and those who cannot should be in a seated position either in their mobility device or on the floor with their backs against the wall. Clients should close their eyes, clear their minds and focus on breathing in and out through their nose. Clients are encouraged to breathe deeper and more prolonged.
Joint Movement and Mindful Walking	While clients are warming up with their learned joint movements, clients will also participate in mindful walking with the aid of the instructor. Clients will walk 20 steps very slowly, placing their heels first and then toes. Other clients in program will continue with joint movements or focusing on their breathing while waiting for their turns.
Yoga Poses	Working through last week's poses, Warrior I & II Pose Extended Side Angle Pose The instructor will also add the following poses and use the wall to modify. Half Downward Dog Facing Pose Triangle Pose
Meditation	Clients should focus on breathing in and out and energies flowing through the affected areas of the body. Clients should also close their minds to the stress of their lives and the complications of their stroke.
Chanting	SO-HAM chanting to increase meditative awareness.
Administer Feelings Evaluation	The instructor will pass around the same evaluation sheet at the end of the session that the client's filled out at the beginning of the session.

Staff Requirements and Responsibilities:

- Recreation Therapist
 - Researching and practicing the yoga movements outlined in the content and process section
 - Plan and make note of modifications that may be necessary for the population
 - Create a calming and relaxed atmosphere
 - Chart progress (ie. Increased number of steps during mindful walking)
- RT Assistant
 - Set up of the space
 - Circulate the room to aid clients in ensuring poses are done correctly
- All staff: first aid and CPR certified

Program Evaluation:

- Clients given evaluation sheet at the beginning of each session to rate how they are feeling (emotions) and if they are experiencing pain
- Given another copy of the evaluation sheet at the end of each session; RT compares the two sheets
- *See Appendix for Evaluation sheet*

Research:

Schmid, A.A., Miller, K.K., Van Puymbroeck, M., & DeBaun-Sprague, E. (2014). Yoga leads to multiple physical improvements after stroke, a pilot study. *Complementary Therapies in Medicine*, 22(6), 994-1000. doi:10.1016/j.ctim.2014.09.005

- Physical benefits of yoga
- Object of the study was to assess any change in the pain, range of motion, strength and endurance of the subjects after 2 sessions of yoga per week for eight weeks
- Sessions focused on breathing, meditation, relaxation and different postures and were one hour in length
- This study also had participants who had already completed their post-stroke rehab but were able to have mobility impairment that required the use of a device
- Participants had enough cognitive abilities to answer questions and follow directions
- Baseline assessments were completed prior to the study and then conducted again after the eight weeks
- Participants demonstrated decreased pain scores, improved ROM and upper extremity strength as well as improved balance without improved lower extremity strength
- Improvements physically could help reconnect the mind and the body for further improvements

Garrett, R., Immink, M. A., & Hillier, S. (2011). Becoming connected: the lived experience of yoga participation after stroke. *Disability & Rehabilitation*, 33(25/26), 2404-2415

- Qualitative study at the University of South Australia on a ten week yoga program for stroke survivors

- Yoga has provided them with physical, psychological and social benefits – focusing on individual experiences and how they perceived it
- Participants were individuals who had suffered a stroke at least nine months prior to the study and had been diagnosed with hemi paresis
- 90 minute sessions held weekly and started with educating participants in yoga concepts, then yoga exercises, followed by breathing and then meditation
- Qualitative interviews were conducted after the study and they revealed positive experiences had by the participants:
 - Comments on their increased social exposure
 - Better body awareness, body sensation, agility, balance and flexibility
 - Increase in energy, concentration, confidence and an increased sense of being calm
- Study supported value of yoga as therapy

RT Signature and Date:

Appendices:

EVALUATION FORM

How Am I Feeling?

Name: _____

Date: _____

On a scale of 1 – 10, rate how stressed you are with 10 being the most stressed.

1 2 3 4 5 6 7 8 9 10

On a scale of 1 – 10, rate how much pain you are experiencing with 10 being the highest level.

1 2 3 4 5 6 7 8 9 10

Choose the face that best describes your mood as of right now.



Angry



Confident



Confused



Content



Depressed



Flirty



Frustrated



Gloomy



Happy



Insecure



Irritable



Relaxed



Spacey



Stressed



Tired



Weepy

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