

Yoga Project

Yoga Intervention Program for Rehabilitation of Stroke

&

Non-Profit Organisation Grant Submission

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Introduction:

Over the past two decades, despite stable stroke incidence and decreasing mortality rates, the overall stroke burden is increasing globally in both men and women of all ages (Feigin, Norrving, & Mensah, 2017). This project is prepared in relation to stroke and yoga intervention programmes for rehabilitation. This report explains about stroke, causes, characteristics of the stroke and discussion of the intervention. In addition, yoga benefits, asanas and step by step instructions, contraindications and side effects of the yoga will be discussed in this report. Moreover, this report will identify, analyse and comment using the research studies on the effectiveness of yoga intervention and propose the yoga project to get the fund from the Australian Community Grants.

Description of neurological condition.

A stroke is a medical condition also known as a cerebrovascular accident (Good, 1990). Stroke is the second most common cause of disability and death worldwide (Donnan, Fisher, Macleod & Davis, 2008). Stroke is defined as a sudden onset of loss of focal neurological function due to inadequate blood supply to the relevant part of the brain (Hankey, 2017). Cerebrovascular accident (CVA) is also known as brain attack or stroke. Stroke incidence increasing globally in both men and women, though women demonstrate a lesser incidence than men and increasing age is also reasoned as a risk factor for stroke (Donnan, Fisher, Macleod, & Davis, 2008). Stroke is the leading cause of disability and the third leading cause of death in the United States (Donnan, Fisher, Macleod, & Davis, 2008). Individuals who have had a stroke have a higher activity limitation, incidence of mood disorder such as depression and anxiety, and more stress as compared to the general population (Immink, Hillier, & Petkov, 2014). In addition, personality can be affected from a stroke such as expressionless face, monotone voice and sexual dysfunction (Collions, 2007). Major known risk factors for CVA are ischemic heart disease, diabetes mellitus, arterial hypertension, smoking and hypercholesterolemia (Cohen, Telman, Mansoon, & Lorber, 2011). CVA or stroke symptoms

Yoga Project:

Yoga Intervention Program for Rehabilitation

depend on the type of stroke and the portion of the brain that is affected (Howard, et al., 2016).

Common symptoms are motor dysfunction (e.g., weakness or paralysis of the legs, arms or face), lack of body balance, sensory loss, speech problems due to cranial nerves damage, vision problems, gait and reflexes, and problems with memory (Hankey, 2017).

There are two main types of strokes, Haemorrhagic and Ischaemic (Moyle, 2018). Cause of haemorrhagic stroke is often associated with hypertension. Haemorrhagic stroke occurs when a blood vessel breaks, and blood accumulates in the surrounding brain tissue. It occurs commonly in the cerebral lobes, thalamus, basal ganglia, brain stem and cerebellum (Moyle, 2018). Ischemic stroke occurs when there is insufficient blood flow to the brain (Moyle, 2018). The most common risk factors of ischemic stroke are smoking, high blood pressure, diabetes, and heart disease (Ghazouani et al., 2009).

Description of intervention/Therapy.

Yoga is an ancient traditional name which originated from a Sanskrit word. Yoga means union of body and mind or one pointed awareness. Yoga practice enhances discipline, self-control, willpower and helps the mind and body to work in perfect energy (Lazaridou, Philbrook, & Tzika, 2013). Yoga not only addresses the physical problems and needs, it also addresses their mental issues and needs (Garrett, Immink & Hillier, 2011). The majority of the stroke survivors live with significant physical and cognitive impairments. After a stroke individuals can become unreliable and dependent as they struggle with a loss of control, confidence and independence. Depression is also a major problem in stroke survivors (Garrett, Immink, & Hillier, 2011). Yoga exercise is beneficial in improving cognition, mood, balance, stress reduction, physical health and overall wellbeing. Yoga is a clinically self-administered intervention option for stroke rehabilitation (Lazaridou, Philbrook, & Tzika, 2013). Yoga programmes mainly focus on the physical practices (asanas) and the breathing practices (pranayama) (Garrett, Immink, & Hillier, 2011). Yoga and

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Yoga Intervention Program for Rehabilitation

yoga development classes are generally conducted only by appropriately qualified yoga teachers or therapists (Immink, Hillier, & Petkov, 2014)

Yoga facilitates balance, relaxation and balance confidence after a stroke. Yoga exercises such as floor yoga postures, standing balance control, cervical rotation and muscle stretches improve neuromuscular control and also help to strengthen muscles for people with chronic and functional loss after stroke (Schmid et al., 2011). Chronic stroke and multiple physical impairments can negatively affect individuals daily living activities and social participation (Schmid et al., 2011). Therapeutic yoga contributes to improve physical functioning and quality of life (Schmid, Miller, Van Puymbroeck, & Debaun-Sprague, 2014). In addition, physical pain and muscle weaknesses are common after stroke. Yoga exercises such as rhythmic breathing, posterior leg stretches, toes movement, hip extensions while standing, seated spinal extension, finger movements and focus during relaxation lead to an activation of the stretch receptors in muscles, joints and ligaments, and improve fine motor coordination and mobility (Schmid, Miller, Van Puymbroeck, & Debaun-Sprague, 2014). Yoga is a unique exercise programme or intervention that helps to improve wellbeing and it is a source of positive outcomes in people with chronic stroke (Schmid, Miller, Van Puymbroeck, & Debaun-Sprague, 2014). Furthermore, yoga and meditation-based practices can be very beneficial in stroke rehabilitation and disability support programmes in relation to individual's wellbeing (Garrett, Immink, & Hillier, 2011).

Individuals who have had a stroke, have activity limitations, incidence of mood disorder and more stress as compared to the general population. Yoga is an effective intervention that not only addresses physical problems and needs, it also addresses mental issues and the needs of individuals with chronic stroke. Moreover, evidence shows that there was a significant improvement for individuals who have had physical functioning and cognitive impairments after stroke, hence concluding that yoga is a successful intervention to tackle physical, psychological and social issues for individuals with chronic stroke. Many findings suggest that from the perspective of the

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individual who has had the stroke, yoga participation provided a number of meaningful and useful benefits. Yoga and meditation-based practices can be very helpful in stroke rehabilitation and disability support programmes in relation to the individual's wellbeing.

In a study from 2014, 37 stroke survivors participated in yoga twice a week for 8 weeks. By the end, patients experienced improved pain, neck range of motion, passive hip range of motion, upper extremity strength, and endurance. These are major benefits. During the study, patients were guided through a yoga practice that included postures, breathing, meditation, and relaxation while sitting, standing, or on the floor. This goes to show that you don't need to be flexible or make fancy postures to benefit from yoga for stroke patients. Even simple elements, like meditation, can have a profound effect.

Starting rehabilitation soon after a stroke can help improve function. The new research from Indianapolis, which was published online in the journal Stroke, suggests that **adding yoga to stroke rehabilitation may improve recovery**. Yoga is a combination of poses, breathing, and meditation. In addition, as you work on recovery from post-stroke paralysis, perhaps you regain some mobility. From there, you can try chair yoga or use props (like foam blocks) to support your poses.

[Asanas to prevent stroke/ CVA, Hypertension, cardiovascular disease & post-stroke:](#)

Program structure:

- A. Breathing exercise/ Pranayama
- B. Warm up exercise
- C. Sun Salutation (Surya Namaskara)
- D. Asanas
- E. Quick relaxation/ Yoga Nidhra/ Shavasana

A. Breathing exercise/ Pranayama:

What is Pranayama?

Your body is like the wick of a candle, and the mind is like the glow all around it. *Prana* is the vital energy needed by our physical and subtle layers, without which the body would perish. It is the *prana* or life force in us that nourishes the mind and keeps the body alive. *Prana* refers to the universal life force and *ayama* means to regulate or lengthen. *Pranayama* means working in the dimension of *prana*.

Understanding prana

Prana creates an aura around the body. It flows through thousands of subtle energy channels called *nadis* and energy centers called *chakras*. The quantity and quality of *prana* and the way it flows through the *nadis* and *chakras* determine one's state of mind.

If the *prana* level is high and its flow is continuous, smooth, and steady, the mind remains calm, positive, and enthusiastic. However, the lack of knowledge and attention to one's breath could cause partial blockages in the *nadis* and *chakras*. Unfortunately, this leads to a jerky and broken *prana* flow. As a result, one experiences increased worries, fear, uncertainty, tensions, conflict and other negative qualities. Every problem first generates in the subtle and then surfaces on the physical level. Sickness shows up in your *prana* (pranic body) much before you get sick physically.

Benefits of Pranayama

The regular practice of breathing exercises can completely change the quality of life that one is leading.

1. Increases and enhances the quantity and quality of *prana*, thereby increasing our energy levels
2. Clears blocked *nadis* and *chakras*, thereby expanding your aura and heightening the spirit

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Yoga Intervention Program for Rehabilitation

3. Makes one energetic, enthusiastic, calmer and positive. Such a state of mind helps us in making better decisions, having mental strength when dealing with adversities and feeling happier
4. Brings harmony between the body, mind, and spirit, making one physically, mentally and, spiritually strong
5. It brings clarity to the mind and good health to the body

Pranayama can promote recovery and/or prevent a stroke if performed regularly.

- It helps in developing mindfulness
- It helps in setting the mind-body connection
- It maximises breathing capacity or increases oxygen intake
- It helps in increasing oxygen availability to the brain tissues.
- It helps to prevent stroke and neurological disorders

Types of Pranayama & How to do Pranayama

The ancient Indian sages knew that some breathing techniques were simple to practice and brought great relaxation to the body and mind. These breathing techniques can be practiced with ease and at any time of the day on an empty stomach.

1. Bhramari pranayama (bee breath)

Is your mind buzzing with activity? Can't stop thinking about what someone said about you? Find a quiet corner and try the Bhramari pranayama (bee breath) to apply brakes to the buzzing mind. This breathing technique is a boon for those with hypertension.



1. Sit up straight in a quiet, well ventilated corner with your eyes closed. Keep a gentle smile on your face
2. Keep your eyes closed for some time. Observe the sensations in the body and the quietness within
3. Place your index fingers on your ears. There is a cartilage between your cheek and ear. Place your index fingers on the cartilage
4. Take a deep breath in and as you breathe out, gently press the cartilage. You can keep the cartilage pressed or press it in and out with your fingers, while making a loud humming sound like a bee
5. You can also make a low-pitched sound but it is a good idea to make a high-pitched one for better results
6. Breathe in again and continue the same pattern 3-4 times.

2. Kapalabhati pranayama (skull shining breathing technique)

Among the breathing techniques, Kapalabhati (skull shining breathing technique) is considered to be the most important. It is also useful for detoxifying the body and clearing the energy channels.

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Yoga Intervention Program for Rehabilitation



1. Sit comfortably with your spine erect. Place your hands on the knees with palms open to the sky.
2. Take a deep breath in.
3. As you exhale, pull your navel back towards the spine. Do as much as you comfortably can. You may keep your right hand on the stomach to feel the abdominal muscles contract.
4. As you relax the navel and abdomen, the breath flows into your lungs automatically.
5. Take 20 such breaths to complete one round of Kapalabhati.
6. After completing the round, relax with your eyes closed and observe the sensations in your body.
7. Do two more rounds of Kapalabhati.

3. Bhastrika pranayama (bellows breath):

When we do any physical exercise our body demands more oxygen, which signals the heart to pump faster, thus raising the heartbeat. But did you know that when you do Bhastrika Pranayama, you pump even more quantity of oxygen even without the body not asking for it. Bhastrika Pranayama is the process of rapid inhalation and exhalation which gives a boost to the body and hence is aptly called the yogic breath of fire. So, the next time you feel like your body needs energy, try Bhastrika Pranayama instead.



1. Sit in vajrasana or sukhasana (cross-legged position).
2. (Pranayama can be more effective in vajrasana as your spine is erect and the diaphragmatic movement is better.)
3. Makes a fist and fold your arms, placing them near your shoulders.
4. Inhale deeply, raise your hands straight up and open your fists.
5. Exhale slightly forcefully, bring your arms down next to your shoulders and close your fists.
6. Continue for 20 breaths.
7. Relax with palms on your thighs.
8. Take a few normal breaths.
9. Continue for two more rounds.

4. Nadi Shodhan Pranayama (Alternate Nostril Breathing technique)

Nadi = subtle energy channel; *Shodhan* = cleaning, purification; *Pranayama* = breathing technique. Nadis are **subtle energy channels** in the human body that can get blocked due to various reasons. The *Nadi Shodhan pranayama is a breathing technique* that helps clear these blocked energy channels, thus calming the mind. This technique is also known as *Anulom Vilompranayama*.

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Yoga Intervention Program for Rehabilitation



- Sit comfortably with your spine erect and shoulders relaxed. Keep a gentle smile on your face.
- Place your left hand on the left knee, and palms open to the sky or in Chin Mudra (thumb and index finger gently touching at the tips).
- Place the tip of the index finger and middle finger of the right hand in between the eyebrows, the ring finger and little finger on the left nostril, and the thumb on the right nostril. We will use the ring finger and little finger to open or close the left nostril and thumb for the right nostril.
- Press your thumb down on the right nostril and breathe out gently through the left nostril.
- Now breathe in from the left nostril and then press the left nostril gently with the ring finger and little finger. Removing the right thumb from the right nostril, breathe out from the right.
- Breathe in from the right nostril and exhale from the left. You have now completed one round of **Nadi Shodhan pranayama**. Continue inhaling and exhaling from alternate nostrils.
- Complete 9 such rounds by alternately breathing through both the nostrils. After every exhalation, remember to breathe in from the same nostril from which you exhaled. Keep your eyes closed throughout and continue taking long, deep, smooth breaths without any force or effort.

B. Warm up exercises:

1. Shoulder Warm up: Standing or sitting

Shoulder acts as foundational support in numbers of balancing yoga asanas. So, it is important to have a strong and flexible base structure that helps in the safe practice of further yoga practice.



Shoulder Socket Rotation



- Begin by standing straight, bend your hand from the elbow, and place them on your shoulders.

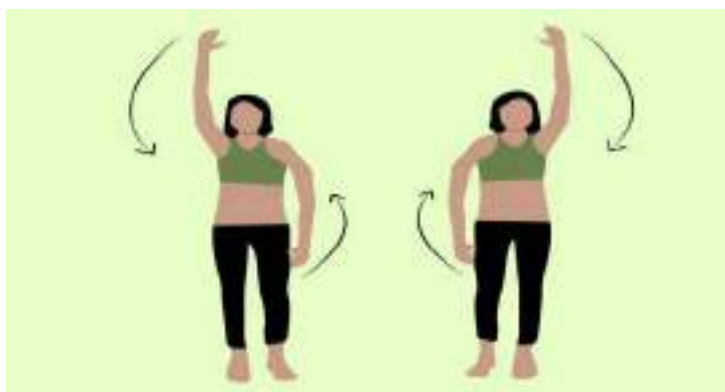
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- Now keeping fingers on your shoulder, slowly inhale while opening your chest – rotate your hands in the clockwise direction (up and back).
- With exhale, rotate your hands in the anticlockwise direction (down and forward).
- Do 5 rounds of rotation in both directions.
- Now, bring your hands beside the hips and breathe slowly to relax.

This warm-up exercise is a traditional yoga pose in Ashtanga yoga called *skandh Chakra*.

2. Alternate Up and Down hands movement



- Stand erect and raise your hands up to shoulder level. Then inhale to take your right hand up above the right shoulder and left hand down beside the hip. Make sure both remain straight.
- Now, exhale to bring your left hand up above the left shoulder and take your right hand down beside the hip.
- Perform this sequence 5 to 10 times and then bring both hands down beside the hips. Then breathe slowly and deeply to relax.

3. Neck Warm up

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Yoga Intervention Program for Rehabilitation



The neck is one of the most important body parts when it comes to the practice of yoga. Neck warm-up helps to lengthen back neck muscle and release any tension in it.

A dull, rigid, and immobilized neck might become a hurdle or kind of discouraging to perform asana where the neck plays a key role, For example, in cobra pose, bridge pose, etc.

Neck Rotation



- Stand straight with legs hips distance apart and stabilize your shoulder to look in the front direction.

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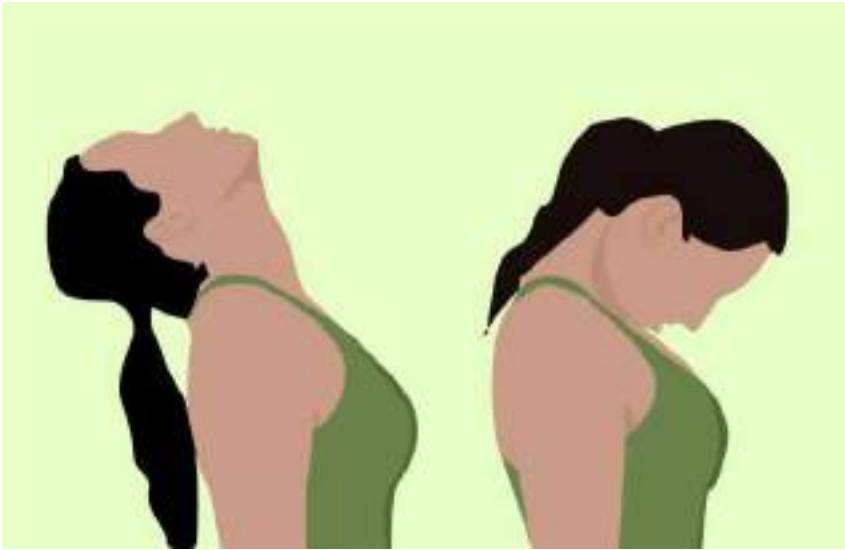
- Remain calm and then begin to rotate your head in a clockwise direction. After resting for a minute, go for an anti-clockwise round.
- As completes the practice bring your head in an equilibrium position and breathe slowly and deeply until your vision stabilizes. Then relax.

Side Tilt



- Come into a standing erect posture or one can practice by sitting in any comfortable posture.
- Perform a few gentle inhale and exhale before you begin to move your neck in either direction.
- Now, proceed with a semi-rotation of the head to the right side of your body. Your chin would be in the vicinity of your left shoulder here.
- And then, inhale to bring it back in the center. Furthermore, Exhale to tilt head in the right to perform another semi-rotation of the head near the right shoulder.
- And then return to the center to inhale. This will complete the one cycle of your Neck movement and then relax.

Neck Forward and Backward Tilt



This can be done while you're seated cross-legged or on your feet. Keep your moves slow and smooth.

- Straight your back, head, shoulder aligned.
- Inhale, tilt your chin up upside in a way that your chin faces the ceiling. Remain here for 10 seconds.
- Relax, and slowly come to starting position.
- From here, exhale down your chin towards your chest. Hold this position for 10 to 15 seconds. Feel the gentle stretch in the upper back.
- Do this exercise 5 times in both directions.

4. Walking Hand in Tabletop pose

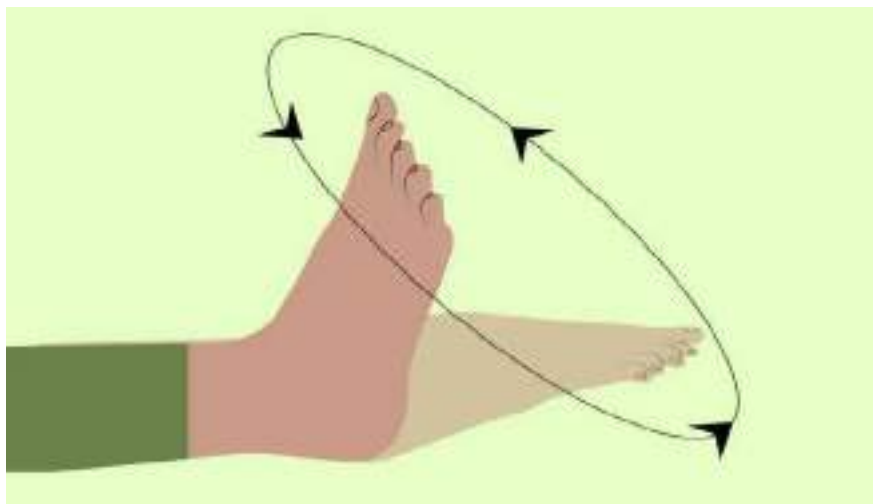


- Begin by coming into the tabletop pose. Your knees placed hip-distance apart and your hands are under the shoulder. The upper part of the feet resting on the floor and sole facing the ceiling.
- Now, inhale and walk your hand forward, extend your torso forward while balancing the upper body on both hands and the lower body on the knees. Here, engage your shoulder blade and arch back. Feel the gentle stretch from the back of the neck to the tailbone.
- After resting for some time, walk your hand back to the initial position of the hand to exhale. You can also uplift your back to counter the inward aching and then relax.

5. Ankle Warm-up

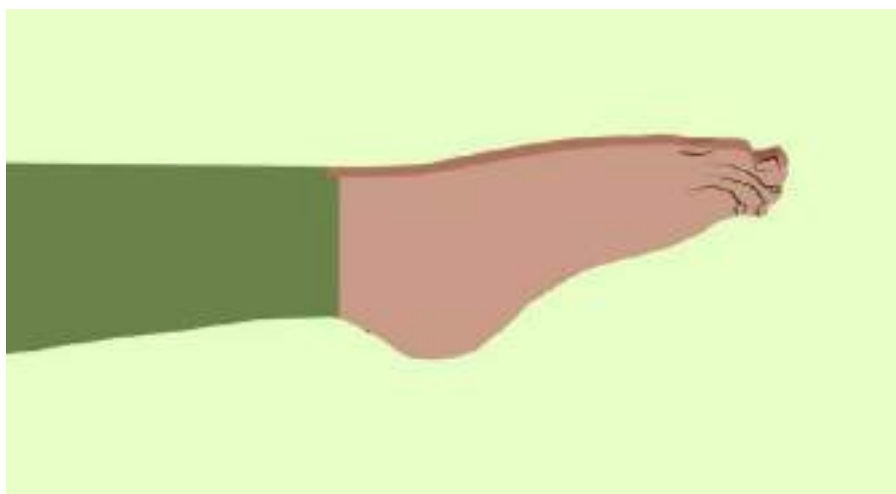


Ankle Rotation



- Begin by coming into the Dandasana, your hands beside your hips and feet straight. Your back should be erect and shoulder relaxed.
- Separate the legs by about a foot. Keep them straight.
- Bring your focus on both foot ankle. Start rotating feet from the ankles together in opposite directions. Here, try to rotate feet externally to the full extent so the sides of the feet touch the floor.
- Rotate from the sides to the forward, then backward (For example, right foot in the clockwise direction and left foot in an anticlockwise direction).
- Do five times in one direction then reverse the rotation direction of both feet.

Bending Ankle Up and Down



- Again come into starting dandasana position. Focus your awareness on the feet.

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- Now, inhale and bend your right foot in a forward direction from the ankle joint. Try to stretch from your toes to touch the floor.
- Exhale, bend your foot backward from the ankle joint.
- Hold your foot in each stretch for a few seconds. Do it 5 rounds.
- Repeat the process on the left foot for equal rounds.
- Then follow the same instructions, both legs at one time – 10 times.

6. Hips Stretching

Hips being the transitioning muscle portion helps in setting up a balance in various asanas. Therefore, warm-up yoga helps in flexibility and mobility of the hips, which further assists in powerful movements while advanced asanas.

Hip circles



- Come into a standing tadasana position and keep your feet with a minimum of 2 to 3 feet distance between them.
- Now, place your hand on your hips and inhale to rotate it in a clockwise direction. Then come to the center position along with an exhale.
- After that, inhale and rotate your hips in an anti-clockwise direction. Then return to the center with an exhale. Now, breathe and relax.

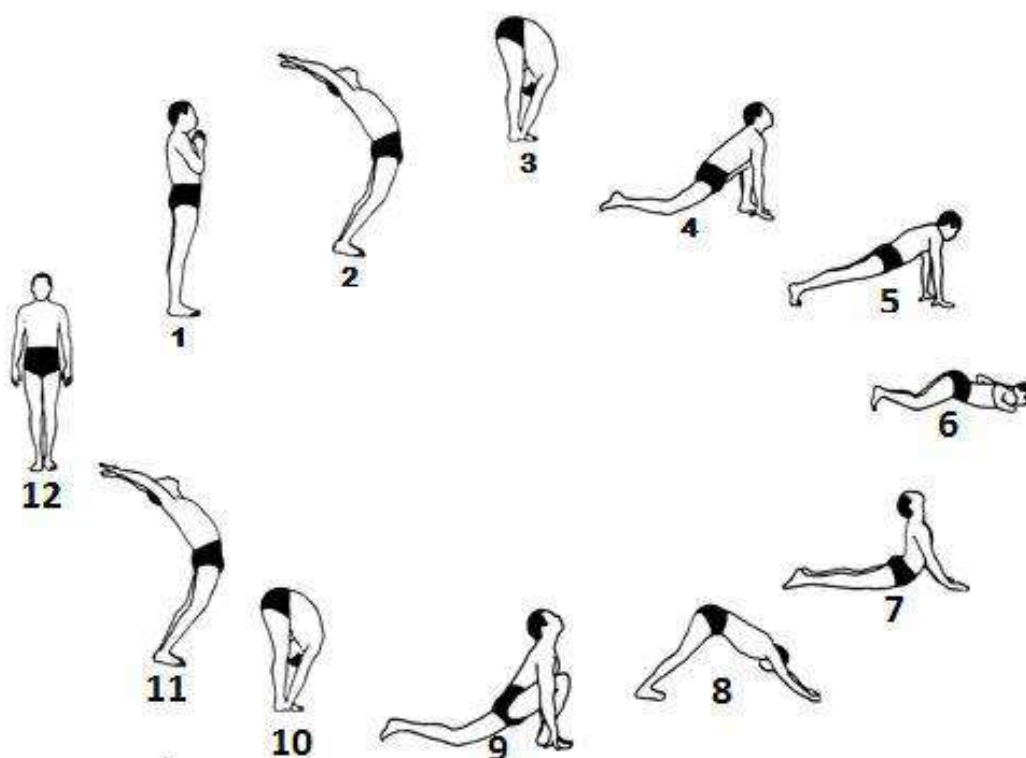
7. Cat-cow stretch



1. Start on your hands and knees with your wrists directly under your shoulders, and your knees directly under your hips. Point your fingertips to the top of your mat. Place your shins and knees hip-width apart. Center your head in a neutral position and soften your gaze downward.
2. Begin by moving into Cow Pose: Inhale as you drop your belly towards the mat. Lift your chin and chest, and gaze up toward the ceiling.
3. Broaden across your shoulder blades and draw your shoulders away from your ears.
4. Next, move into Cat Pose: As you exhale, draw your belly to your spine and round your back toward the ceiling. The pose should look like a cat stretching its back.
5. Release the crown of your head toward the floor, but don't force your chin to your chest.
6. Inhale, coming back into Cow Pose, and then exhale as you return to Cat Pose.
7. Repeat 5-10 times, and then rest by sitting back on your heels with your torso upright.

You can end your warm-up sequence with these stretches lying into the prone position. These stretches along with warming up the core, hips, and back prepare the mind as well for further poses.

C. Sivananda - Surya Namaskar (sun salutation)



1. Pranamasana (prayer pose)

Face the sun. Fold the hands. Legs together, stand erect.

2. Hasta Utthanasana (raised arms pose)

Inhale and raise the arms. Bend backward.

3. Padahastasana (hand to foot pose)

Exhale and bend forward till the hands are in line with the feet. Touch the knees with your head. In the beginning, the knees may be slightly bent until the head can touch them. After some practice, the knees should be straightened.

4. Ashwa Sanchalanasana (equestrian or lower lounge pose)

Inhale and move the right leg away from the body in a big backward step. Keep the hands and left foot firmly on the ground, bending the head backward. The left knee should be between the hands.

5. Phalakasana (plank pose)

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Inhale and hold the breath. Move the left leg from the body and, keeping both feet together and the knees off the floor, rest on the hands (arms straight) and keep the body in a straight line from head to foot.

6. Astanga Namaskara(eight limbs of body touching on ground)

Exhale and lower the body to the floor. In this position, known as sastanga namaskar or eight- curved prostration, only eight portions of the body come in contact with the floor: two feet, two knees, two hands, chest, and forehead. The abdominal region is raised and, if possible, the nose is also kept off the floor, the forehead only touching it.

7. Bhujangasana(cobra pose)

Inhale and bend backward as much as possible, bending the spine to the maximum.

8. Parvatasana(mountain pose)

Exhale and lift the body. Keep the feet and heels flat on the floor.

9. Ashwa Sanchalanasana (equestrian or lower lounge pose)

Inhale and bring the right foot along the level of the hands; left foot and knee should touch the ground. Look up, bending the spine slightly.

10. Padahastasana (hand to foot pose)

Exhale and bring the left leg forward. Keep the knees straight and bring the head down to the knees as in the third position.

11. Hasta Utthanasana (raised arms pose)

Raise the arms overhead and bend backward inhaling.

12. Pranamasana (prayer pose)

Exhale, drop the arms, and relax.

D. Asanas:

1. Vajrasana:



Kneel on the floor with the knees close together. Bring the big toes together and separate the heels. Lower the buttocks onto the inside surface of the feet with the heels touching the sides of the hips. Place the hands on the knees, palms down. The back and head should be straight but not tense. Avoid excessive backward arching of the spine. Close the eyes, relax the arms and the whole body. Breathe normally and fix the attention on the flow of air passing in and out of the nostrils.

2. Child's Pose



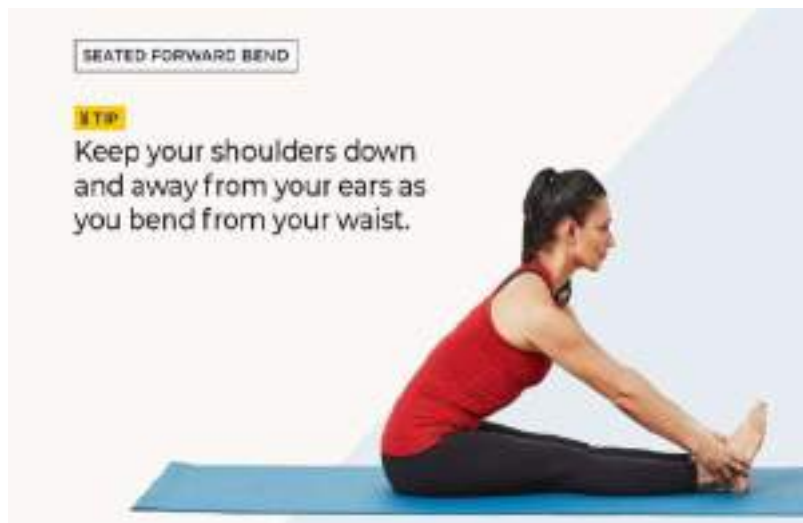
- Begin by kneeling on the floor where your knees are hip-distance apart and toes of the feet touching each other behind the body.
- Now, exhale to bend forward in a manner that your head lies between the knees and extends your arms on either side of your torso.

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Yoga Intervention Program for Rehabilitation

- Remain there for few seconds and then come back along with an inhale and then relax.

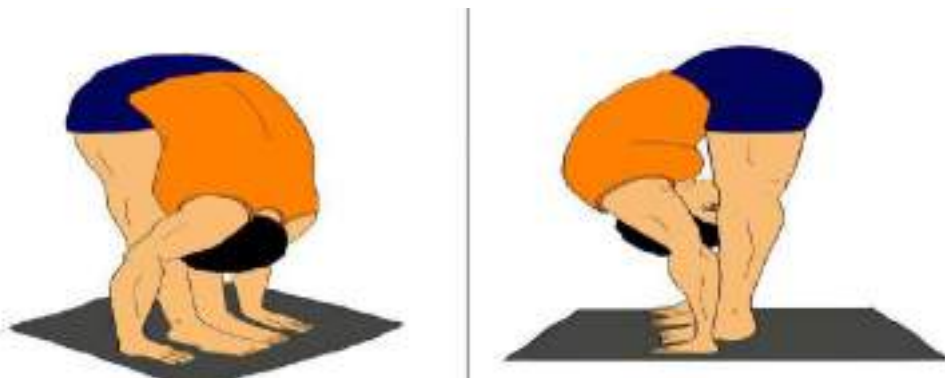
3. Paschimottanasana — Seated forward bend



Begin by stretching your legs forward; ensure that your knees are slightly bent.

- * Extend your arms upward and keep your spine erect.
- * Exhale and empty your stomach of air.
- * With the exhale, bend forward at the hip and place your upper body on your lower body.
- * Lower your arms and grip your big toes with your fingers.
- * Try to touch your knees with your nose. Hold the posture for 10 seconds.

4. Padahasthasana



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Begin by standing in Samasthiti.

- * Exhale and gently bend your upper body down from the hips and touch your nose to your knees.
- * Place palms on either side of your feet.
- * Slowly straighten your knees and try to bring your chest to your thighs.
- * Hold this asana for a while.

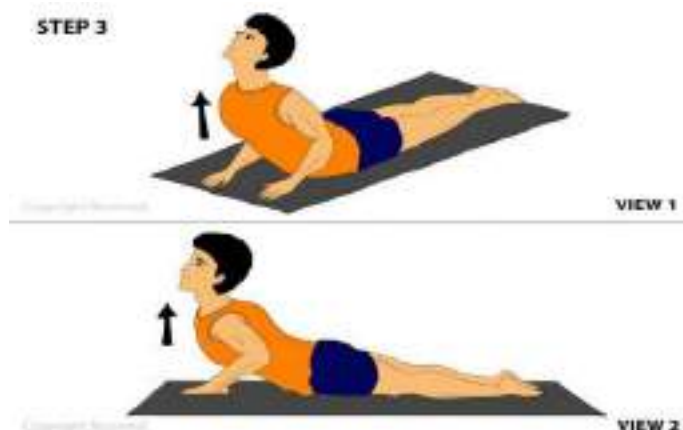
5. Dhanurasana



Begin by lying down on your stomach.

- * Bend your knees and hold your ankles with your palms.
- * Have a strong grip.
- * Lift your legs and arms as high as you can.
- * Look up and hold the posture for a while.

6. Bhujangasana (Cobra Pose)



Lie down flat on your stomach with your palms placed under your shoulders.

- * Bring your feet together, keeping your toes on the ground.
- * Take a deep breath in, hold it as you then lift your head, shoulders and torso up.
- * Lift up at a 30 degree angle but ensure you are keeping your navel on the floor.
- * Broaden out your shoulders with your head slightly raised upwards.
- * To release, gently and slowly lower your torso and then exhale.

7. Staff Pose (Dandasana)



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Yoga Intervention Program for Rehabilitation

- Sit on the floor with your legs straight together, and sit up straight.
- Press the hands strongly into the floor, behind your hips.
- Open your chest and hamstrings.
- Place the hands on the floor.
- Forces the deep core muscles of your body to keep the spine straight and the chest open.
- Draw your chin towards your chest and breathe deeply.

8. Warrior Pose (Virabhadrasana)



- Stand straight with your legs wide apart.
- Turn your right foot out by 90 degrees and left foot in by about 15 degrees.
- Place both your arms sideways to the height of your shoulder. Palms should be facing upwards.
- Breathing out, bend your right knee.
- Turn your head to your right.
- Keep stretching your arms without putting too much pressure.
- Push your pelvis down. Hold the yoga posture like a warrior.
- Breathing in, come up.
- Bring your hands down from the sides while breathing out.
- Repeat for the left side (turn your left foot out by 90 degrees and turn the right foot in by about 15 degrees).

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Yoga Intervention Program for Rehabilitation

9. Vrksasana (Tree pose)



1. Stand in Tadasana. Spread your toes, press your feet into the mat and firm your leg muscles. Raise your front hip points toward your lower ribs to gently lift in your lower belly.
2. Inhale deeply, lifting your chest, and exhale as you draw your shoulder blades down your back. Look straight ahead at a steady gazing spot.
3. Place your hands on your hips and raise your right foot high onto your left thigh or shin. Avoid making contact with the knee.
4. Press your right foot and left leg into each other.
5. Check that your pelvis is level and squared to the front.
6. When you feel steady, place your hands into Anjali Mudra at the heart or stretch your arms overhead like branches reaching into the sun.
7. Hold for several breaths, then step back into Mountain Pose and repeat on the other side.

E. Quick relaxation/ Yoga Nidhra/ Shavasana

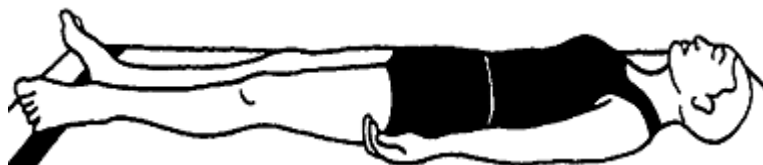
Why relax?

When you are performing postures, you can observe how the asana practice contains its own, in-built rhythmical alternation between effort and relaxation. In some asanas, your muscles are first stretched and then relaxed; in others, they are contracted and then relaxed. Relaxing between asanas confirms this pattern of effort and release in your nervous system, so that by the time you reach the final relaxation, your nervous system is so well balanced that you will be able to relax simply by visualizing yourself relaxed.

Relaxing on your back

Corpse Pose is the preferred position for relaxation between most asanas - exceptions are for backward bends and inversions. If you find this pose uncomfortable, use the alternative pose.

Shavasana:



Practice:

Lie flat on the back with the arms about 15 cm away from the body, palms facing upward. A thin pillow or folded cloth may be placed behind the head to prevent discomfort. Let the fingers curl up slightly. Move the feet slightly apart to a comfortable position and close the eyes. The head and spine should be in a straight line. Make sure the head does not fall to one side or the other. Relax the whole body and stop all physical movement. Become aware of the natural breath and allow it to become rhythmic and relaxed. After some time, again become aware of the body and surroundings, and gently and smoothly release the posture.

Yoga Project:

Yoga Intervention Program for Rehabilitation

Step-1:

- Observe your breath....
- Recognize the slowing down of your breath....
- The breathing is becoming normal, natural and spontaneous....

Step-2:

- Now become aware of your whole body from head to toe mentally....
- Just survey the whole body mentally from head to toe recognizing the relaxation of each and every part of your body....
- If you find any stress, tension in any parts of your body, just let it go...., try to relax that part mentally....
- Any tightness, any rigidity in any parts of your body – just let it go...., try to relax that part mentally....

Step-3:

- Now once again bring your awareness to your breath....
- The breathing is now very normal, natural, spontaneous and also rhythmic

Step-4:

- Now bring your awareness at the top of your head....
- Become aware of the crown area....
- Mentally relax the crown muscles of your head....
- Then relax your forehead muscles...., eye muscles....right eye and left eye....
- Relax your nose....right nose....left nose....
- Relax your facial muscles....right face....left face....
- Now relax your ears....right ear....left ear.... and back the of your head....
- Now relax your jaw....upper jaw....lower jaw....upper teeth....lower teeth....and relax your tongue

Yoga Project:

Yoga Intervention Program for Rehabilitation

- Now bring your awareness at your throat.... relax your throat....the back of your neck and the sides of your neck....

Step-5:

- Now bring your awareness at your right shoulder....
- Mentally relax your right shoulder....right shoulder joint....right upper arm, right elbow joint....
- Relax your right forearm, right wrist joint, right palm, the back of your right palm....
- Relax your right thumb....second finger....third finger....fourth finger....fifth finger....all the fingers of your right palm....
- Now bring your awareness at your left shoulder....
- Mentally relax your left shoulder....left shoulder joint....left upper arm, left elbow joint....
- Relax your left forearm, left wrist joint, left palm, the back of your left palm....
- Relax your left thumb....second finger....third finger....fourth finger....fifth finger....all the fingers of your left palm....

Step-6:

- Now bring awareness on your chest....
- Relax your right chest....left chest....center of your chest....the rib bones...and the entire rib cage....
- Then relax your abdomen....the upper abdomen....lower abdomen....right abdomen....left abdomen....and the center of your abdomen....
- Now bring your awareness on your back....relax your upper back....middle back....and lower back....
- Now relax all the joints of your spine one by one from top to bottom....
- Bring your awareness at the top of your spine....and move your awareness slowly down to middle part of the spine feeling the relaxation of vertebral joints....

Yoga Project:

Yoga Intervention Program for Rehabilitation

- From middle part of the spine move your awareness slowly down to the lower part of the spine feeling the relaxation of vertebral joints....and further down to the tail bone....feeling the relaxation....

- Now all the joints of your spine are beautifully relaxed from top to bottom....

- All the muscles, ligaments, tendons around your spine are also totally relaxed....

Step-7:

- Now bring your awareness at your right hip joint....

- Mentally relax your right hip joint....right thigh muscle....right knee joint....

- Relax your right calf muscle....right ankle joint....right heel....the soul of your right foot....the top of your right foot....

- Relax your right big toe....the second toe.... third toe....fourth toe.... fifth toe....and relax all the toes of your right foot....

- Now bring your awareness at your left hip joint....

- Mentally relax your left hip joint....left thigh muscle....left knee joint....

- Relax your left calf muscle....left ankle joint....left heel....the soul of your right foot....the top of your left foot....

- Relax your left big toe....the second toe.... third toe....fourth toe.... fifth toe....and relax all the toes of your left foot....

Step-8:

- Now once again bring your awareness at the top of your head....

- Feel the relaxation of your crown muscles....the forehead muscles.... eye muscles....nose and facial muscles, the ears, the back of your head....

- Feel the relaxation of your neck muscles....

- The right arm.... starting from right shoulder, moving your awareness down to the right palm fingers feeling the relaxation....

- The left arm.... starting from left shoulder, moving your awareness down to the left palm fingers feeling the relaxation....

- Now feel the relaxation of your chest muscles....abdominal muscles....the back muscles...the upper back....middle back....and lower back muscles....

Yoga Project:

Yoga Intervention Program for Rehabilitation

- Feel the relaxation of your right leg....starting from right hip joint, moving your awareness down to the right toes feeling the relaxation of entire right leg....
- Now feel the relaxation of your left leg.... starting from left hip joint, moving your awareness down to the left toes feeling the relaxation entire left leg....

Step-9:

- Now bring your awareness on your breath...
- The breathing is very normal, natural, spontaneous and rhythmic....
- Now become aware of your body....
- Then become aware of your surroundings....be aware of the atmosphere around you....
- Now mentally prepare yourself to move your palm fingers to come out from the state of relaxation to the external world....
- Now gently move your palm fingers a little....then move your toes a little....
- Then take your own time to come to sitting posture by gently turning to the left side keeping the eyes gently closed....

..... **Practice End**

Grant proposal for community yoga program:

PROJECT TITLE:

Inclusive group yoga program to enhance the quality of life (physical and mental health)

ORGANISATION DETAILS:

B1: Organization Details

Organisation Name	Total Health Support Ltd		
Physical Address	Adelaide, South Australia		
Postal Address	Adelaide, South Australia		
Phone	123456789	Email	info@totalhealthsupport.com.au
Fax	Click here to enter text.	Website	www.totalhealthsupport.com.au

Contact Person	Pratheepa Ankavalli Gowdegowda		
Position within Organisation	Director		
Phone	123456789	Mobile	Click here to enter text.
Fax	Click here to enter text.	Email	Click here to enter text.

Is your organisation incorporated? YES NO

Does your organisation have an Australian Business Number (ABN)? YES NO

If YES, what is your organisation's ABN?

123456789

Is your organisation registered for goods and services tax (GST)? YES NO

Yoga Project:

Yoga intervention Program for rehabilitation

Please describe the purpose, key activities, target audience, and some of the recent achievements of your organization.

Purpose:

Total Health Support Ltd (THS) is a South Australia based non-profit organization that supports primarily individuals with an intellectual disability and other health conditions. THS established in 2021 and runs various leisure activities such as walking/hiking, bicycling, swimming, bowling, variety of creative and fun activities. The organization seeks to enhance the quality of life of individuals living with a disability by using inclusivity and equal opportunity to participate in leisure activities as members of the wider community. THS is planning to introduce a yoga program as a leisure activity for individuals with cardiovascular disease, stroke, physical and mental health condition due to increased interest in this as an activity. This project will achieve community inclusion and have an opportunity for participants to interact with other individuals, their family members, THS volunteers and certified yoga teacher. The Australian Community Grants (ACG) grant will allow the purchase of new materials and equipment such as projector and accessories, speakers, microphones, computer, audio system, yoga mats and chairs. The projector and computer are required to display a bigger image so that participants can watch instruction videos clearly at a distance. Audio system, microphone and speakers are required to amplify the yoga teacher's instructional voice. The primary aim of the project is to improve individuals social skills, physical and mental health, cognition, physical functioning, agility and balance, and quality of life.

Key activities:

The proposed yoga program involves various activities during group sessions including breathing technique practice, mindfulness practice, yoga postures, chair yoga practice, body

Yoga Project:**Yoga intervention Program for rehabilitation**

relaxation techniques and series of movements designed to improve flexibility and muscle strength. In addition, participants and their family members will have an opportunity to interact with other participants and families before, during and after group yoga sessions.

Target audience:

THS is currently supporting a total of 15 individuals with various disabilities including stroke and mental health conditions, 5 of them are diagnosed with Intellectual Disability (ID). As mentioned earlier the project primary focus is to support individuals with ID, stroke and mental health conditions. In addition, with the recent success and growth in leisure programs, the number of participants with ID and mental health conditions is increasing and they are seeking additional leisure activities to improve their quality of life.

Recent achievement:

THS won the annual award for Outstanding achievement at the 2021 National Leisure and Disability award, based on a set of criteria including participants consistent attendance, improvement in social skills and interventions to improve individual's quality of life. With the success and growth in the number of leisure activities in the organization and increasing the number of participants with ID in leisure activities, the organization decided to introduce yoga leisure program particularly for individuals with ID, stroke and mental health conditions.

PROJECT SUMMARY

Total Health Support Ltd is hoping to encourage individuals with a disability, mental health issues and especially for individuals with intellectual disability (ID) to enhance their physical

Yoga Project:

Yoga intervention Program for rehabilitation

and mental health. THS is seeking to start a new and suitable leisure program for individuals with an ID and engaging new participants and meeting an increasing demand for diverse leisure activities. The new program is yoga classes, and this project will contribute to achieve a number of health benefits for individuals. Yoga is an important and effective intervention for individuals with and without disabilities to improve their physical and mental health (Reina, Adams, Allison, Mueller, Crowe, Puymbroeck & Schmid, 2020). The proposed project funding requested is to purchase a projector and accessories, speakers, microphones, computer, audio system, mats and chairs. The project predominantly focuses on individuals with ID, stroke, and mental health conditions. In addition to that a number of participants with ID, stroke and neurological disorders are seeking additional leisure activities to improve their quality of life.

Individuals with intellectual disabilities (ID) encompass many diagnoses including but not limited to Down syndrome, Autism spectrum disorder (ASD), and Fragile X syndrome (Reina et al., (2020)). In addition, most of the individuals with intellectual disabilities are vulnerable and characterized by limitations in intellectual functioning such as reduced cognition, impaired physical functioning, coordination, and sensorimotor skills issues (Lee, Cascella & Marwaha, 2021). THS is very keen and looking forward to assisting individuals with ID to improve their cognition, physical functioning and social skills with this new yoga program. Yoga is a valuable intervention for individual and can contribute to improve physical strength, agility and balance, concentration, lower and upper body flexibility, and endurance (Reina et al., 2020). The research suggested that physical activity including yoga improves functional fitness for individuals with ID, stroke as well as without disability (Woodyard, 2011). Yoga is an alternative physical exercise to increase muscle strength under the certified yoga teacher's guidance for individuals who have an increased risk of obesity,

Yoga Project:

Yoga intervention Program for rehabilitation

limited mobility and individuals who may not like to participate in outdoor leisure activities (Hawkins, Stegall, Weber & Ryan, 2012).

The proposed project will primarily support youth and adults to become actively engaged in a group yoga session to enhance their physical fitness, social skills, concentration and reduce stress, anxiety, and physiological arousal. The yoga project involves various activities during the group sessions including breathing techniques, mindfulness practice, yoga postures, body relaxation techniques and series of movements designed to improve flexibility and muscle strength. Woodyard (2011) stated that as a 3000-year-old tradition, yoga, is a healing system that has a variety of activities including physical postures (Asanas), breathing exercises (Pranayama) and body movements to increase stamina, balance, flexibility, and strength. In order to run the yoga program, THS will need to modify the proposed site to allow individuals with a disability to participate in the program, employ a certified yoga teacher and purchase necessary equipment and materials. However, funding from this award will be used to purchase a projector and accessories, audio system, computer, yoga mats and chairs only. Other than those essentials, THS will organize the annual salary of the yoga teacher, administration, maintenance, printing materials, necessary support for individuals and venue modification according to the individual's requirements to access the yoga program. There is a total of 15 individuals with a disability, stroke and mental health conditions, 5 of them are diagnosed with ID and regularly attend various leisure activities at THS. Many new participants with ID requesting new leisure activities and a majority of existing participants and their families expressed interest in participating in a yoga program. THS plans to run one-hour yoga sessions twice a week throughout the year. THS decided to create two groups of 8 interested participants. THS's trained volunteers assist individuals who require additional support during the yoga program and family members are also encouraged to

Yoga Project:

Yoga intervention Program for rehabilitation

participate along with the participants. The designated program hall for yoga at THS fits about 30 people comfortably, thus volunteers and family members all can fit in the one hall. The proposed yoga project consists of two different activities in one-hour session: breathing (Pranayama) and postures (asanas). Both the physical postures and breathing techniques are the most common aspects of yoga practice to enhance the capacity in physical strength, stress relief, improving mental health and contribute to minimize heart related issues (Woodyard, 2011). THS selected this yoga project to assist individuals to improve physical fitness, minimize cardiovascular disease and improve their quality of life. Banks (2016) stated that the most common issues with individuals with an ID are respiratory diseases, cardiovascular disease, obesity, Parkinson's disease, poor mental health, anxiety, and conditions affecting the bones and joints.

This yoga project contributes to individuals to improve their quality of life.

THS has to employ a yoga teacher and organize the following equipment and materials to run yoga program.

Materials and equipment	Numbers	Cost	Link (Cost reference)
Yoga mat (6mm Gaiam Ultra Sticky Yoga Mat)	25	\$2,399.60	https://www.rebelsport.com.au/p/gaiam-ultra-sticky-yoga-mat-6mm-583064.html?cgid=REB071701#start=18
Projector (Epson EH-TW7100)	1	\$2,649	https://www.harveynorman.com.au/epson-eh-tw7100-home-theatre-projector.html
Projector board screen (Westinghouse 120-inch)	1	\$1,099	https://www.harveynorman.com.au/westinghouse-120-inch-motorised-projector-screen.html

Yoga Project:

Yoga intervention Program for rehabilitation

Desktop computer (HP 21-inch PC)	1	\$597	https://www.officeworks.com.au/shop/officeworks/p/hp-21-all-in-one-pc-hp22u34aa
Audio system (Yamaha RXV385B 5.1)	1	\$495	https://www.harveynorman.com.au/yamaha-rxv385b-5-1-channel-rx-v385-av-receiver.html
Speakers	3	\$261	https://www.officeworks.com.au/shop/officeworks/p/logitech-400-watt-speaker-system-black-z623-inlog3073
Microphone	1	\$398	https://www.harveynorman.com.au/blue-microphone-yeticaster-pro-broadcast-bundle-with-yeti-radius-iii-and-compass.html
Yoga teacher salary (\$70 per hour), 52 weeks.	104 sessions	\$7280	https://www.yogaaustralia.org.au/wp-content/uploads/2015/11/SalaryGuidlines.pdf
Chairs	40	\$3520	https://mileendofficefurniture.com.au/product/chairs-seating/beam-row-seating/fila2-visitor-chair-wing-back-charcoal/

In addition, Total Health Support is providing additional funding to employ a certified yoga teacher, venue modifications, printing materials, participants' support, maintenance, administration, and additional bills to run this yoga program. THS is providing an estimated cost of \$11,330 to run this program.

Outline the project's budget (i.e., funding and expenditure) in the tables below.

- Please list all amounts in Australian dollars.
- Make sure that the budget **balances**, i.e., **total funding is equal to total expenditure**.
- Please add further lines as required.

FUNDING			
Amount requested in this application <i>(must be less than \$25,000)</i>			\$ 11,418.60
Is your organisation providing any funding for this project?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	
If YES, enter the funding amount from your organisation here			\$ 11,330
Have you received funding from other bodies or organisations for this project?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	
If YES, list each body/organisation and the amount of funding provided below			

Yoga Project:

Yoga intervention Program for rehabilitation

Click here to enter text.	\$ Click here to enter text.
Click here to enter text.	\$ Click here to enter text.
TOTAL FUNDING	\$ \$22,748.60

EXPENDITURE <i>(Breakdown of individual line items such as salaries, equipment, administration, travel and transport costs, etc.)</i>	
Salary Employing a yoga teacher to run the program for 12 months, 104 sessions.	\$ 7,280
Yoga mats (40) (6mm Gaiam Ultra Sticky Yoga Mat)	\$ 2,399.60
Projector (Epson EH-TW7100)	\$ 2,649
Venue modification	\$ 2,300
Administration cost to run the program	\$ 1,750
Chairs (40)	\$ 3,520
Projector board screen (Westinghouse 120-inch)	\$ 1,099
Desktop computer (HP 21-inch PC)	\$ 597
Audio system (Yamaha RXV385B 5.1)	\$ 495
Speakers and microphone	\$ 659
TOTAL EXPENDITURE	\$ 22,748.60

IN-KIND CONTRIBUTIONS <i>(Include an estimated value for non-cash contributions such as services, equipment, time and materials contributed by your organisation)</i>	
Travel cost for volunteers	\$ 1,200
Printing and promotional materials	\$ 1,100
Catering for yoga program	\$ 1,400
TOTAL IN-KIND CONTRIBUTIONS	\$ 3,700

Please provide a brief justification for the proposed expenditure:

THS is a non-profit organization and has been providing various leisure activities since 2021 for individuals with a disability, stroke and mental health conditions. The organization initially started with a fitness group leisure activity within the local community and with volunteers support. THS gradually increased its capacity and developed many different

Yoga Project:

Yoga intervention Program for rehabilitation

programs to support individuals. The organizations profits were re-invested to develop new programs, administration costs, buying new equipment, venue modifications and invested to operate for a collective, public and social benefit. When THS was intending to run yoga program in the beginning of 2021, there was a shortage of funding to purchase relevant equipment and materials. Considering all THS's expenditures to run other leisure programs, there was a gap of \$11,418.60 to allow a yoga program to commence.

In order to run this new project, THS was required a total fund of \$22,748.60 for necessary modifications, purchase of equipment and materials, administration cost, relevant expenditures and yoga teacher's salary for the whole year. As a result, THS decided to fund \$11,330 to cover the additional expenditures and salary of yoga teacher. THS is requesting the gap amount of \$11,418.60 from Australian Community Grant to start the new project for individuals with ID.

Please provide an expected timeline for the project (e.g. implementation date, purchase of equipment, etc.).

THS is planning to run the yoga program for 12 months. However, all the necessary preparations and modifications are to be in place before the end of August 2022. The proposed project implementation date is scheduled for 1st of September 2022 and will continue until the 30th of August 2023. THS has been allocated the whole month of June 2022 to complete all the necessary modifications, recruitment of volunteers and support staff and the purchase of chairs and materials. July 2022 has been allocated to purchase equipment and recruit a yoga teacher to run the program if the funding is approved. After the funding is approved and all the equipment is purchased, installed and necessary arrangements are made, the yoga program will be ready to commence on 1st of September 2022. During the project preparation from June 2022 to August 2022, THS will also be engaging with creating

Yoga Project:

Yoga intervention Program for rehabilitation

participants groups, contacting family members and making necessary arrangements for and local community members to participate in the yoga program and complete all the necessary steps to start yoga program.

PROJECT SIGNIFICANCE

Explain how the proposed project will: (1) allow your organisation to better engage with people with a disability, and/or (2) support people with a disability, stroke and mental health conditions to participate in the community, and lead an ordinary life.

The yoga project is dedicated to individuals with an ID and other health conditions. With recent successes and growth in leisure activities and increasing the number of participants, THS plans to establish new programs for individual with an ID and other health conditions (Stroke, mental health conditions). This project idea will enable individuals to participate in a yoga program independently and/or with the family members. In addition, this project is a group-based leisure activity and individuals will be motivated to participate and interact with others in the yoga program. Moreover, the new project idea should be funded because yoga assist individual with an ID and other health conditions to improve physical fitness, mental health, social skills and minimize cardiovascular disease and improve their quality of life. Individuals with ID, stroke and mental health issues have higher risk of obesity, respiratory diseases, cardiovascular disease, Parkinson's disease, anxiety, and arthritis as compared to individuals with other type of disabilities (Banks, 2016). Most importantly, promoting this new project will increase the participation in activities programs of individuals with ID, increase community engagement, and people in the community will have an opportunity to meet other family members and utilise the potential benefits of yoga to live a better life. Increasing the number of participants and supporting strong community engagement will also

Yoga Project:

Yoga intervention Program for rehabilitation

benefit THS to continue to implement new leisure programs to enhance individuals quality of life.

Explain how your proposed project will be sustainable in the long-term and maximise positive outcomes for as many people with a disability as possible.

THS requested funding to close the gap between total project funding and the THS contribution to run the program for one year. According to THS statistics, there was a shortage of \$11,418.60 to purchase essential materials and equipment to start the new project. Once THS receives funding from this award (ACG), THS will be able to pay the salary of the yoga teacher and relevant expenditures to run the program throughout the year. For the following year, THS will not be required to purchase any equipment and will not be seeking additional funding to run the yoga program. As many participants and their families are requesting new leisure activities, THS plans to expand and offer this program to local community members and participants families. In addition, THS is preparing to recruit volunteers and provide the necessary training to support participants during yoga sessions and encourage more participants to participate and expand the yoga program. The yoga program will be maintained and sustainable for the long-term with the support of trained volunteers, local community members, family members, donations and THS support.

How will you assess the outcomes of the project? Identify any performance measures that could be used to assess the impact of the proposed project for people with a disability

Assessing and measuring the outcome of the project is a very important process to understand the success of the project. As THS is a non-profit organisation, THS has a specialised project management team, and they are responsible to assess the project's effectiveness, identify the outcomes using round-table discussions, online and email surveys, one-on-one phone calls

Yoga Project:**Yoga intervention Program for rehabilitation**

with multiple stakeholders including volunteers, participants, family members, local community members and management team. It is important to ask for individuals' satisfaction and make necessary changes for the project success. The project management team within the organisation will have quarterly outcome data and be available to report if ACG grant team requests additional information.

Yoga Project:

Yoga intervention Program for rehabilitation

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Yoga intervention Program for rehabilitation

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Yoga Project:

Yoga intervention Program for rehabilitation

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