A BASIC YOGA THERAPY PROGRAMME FOR PATIENTS OF MULTIPLE SCLEROSIS

By

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INTRODUCTION TO MULTIPLE SCLEROSIS

Multiple sclerosis (MS) is a disease in which the nerves of the central nervous system (brain and spinal cord) degenerate. Myelin, which provides a covering or insulation for nerves, improves the conduction of impulses along the nerves and also is important for maintaining the health of the nerves. In MS, inflammation causes the myelin to disappear consequently slowing down the electrical impulses along the nerves and also nerves themselves are damaged. As more and more nerves are affected, a person experiences a progressive interference with functions such as vision, speech, walking, writing, and memory.

The cause of multiple sclerosis is still unknown though the recent research has focused on the immune system and genetics for explanations. In MS, researchers suspect that a foreign agent such as a virus alters the immune system so that the immune system perceives myelin as an intruder and attacks it. The attack by the immune system on the tissues that it is supposed to protect is called autoimmunity, and MS is believed to be a disease of autoimmunity. While some of the myelin may be repaired after the assault, some of the nerves are stripped of their myelin covering (become demyelinated). Scarring also occurs, and material is deposited into the scars and forms plaques.

Although its role is unclear, genetics may play a role in multiple sclerosis. European gypsies, Eskimos and African Bantu essentially do not develop multiple sclerosis, while Native Indians of North and South America, Japanese and other Asian groups have a low incidence. The general population has less than a one-percent chance of developing multiple sclerosis. The chance increases in families where a first-degree relative has the disease. Thus, a brother, sister, parent, or child of a person with multiple sclerosis stands a one-percent to three percent chance of developing multiple sclerosis. Similarly, an identical twin runs a nearly 30% chance of acquiring multiple sclerosis whereas a non-identical twin has only a 4% chance if the other twin has the disease. These statistics suggest that genetic factors play a major role in multiple sclerosis. However, other data suggest that environmental factors also play an important role.
There are different clinical manifestations of multiple sclerosis. During an attack, a person experiences a sudden deterioration in normal physical abilities that may range from mild to severe. This attack, sometimes referred to as an exacerbation of multiple sclerosis, typically lasts more than 24 hours and generally more than a few weeks (rarely more than four weeks).

About 65%-80% of individuals begin with relapsing-remitting (RR) MS, the most common type. In this type, they experience a series of attacks followed by complete or partial disappearance of the symptoms (remission) until another attack occurs (relapse). It may be weeks to decades between relapses.

In primary-progressive (PP) MS, there is a continuous, gradual decline in a person’s physical abilities from the outset rather than relapses. About 10%-20% of individuals begin with PP-MS.

Those beginning with RR-MS can then enter a phase where relapses are rare but more disability accumulates, and are said to have secondary-progressive (SP) MS. About 50% of RR-MS individuals will develop SP-MS within 10 years. Over several decades, most RR-MS persons will experience progression to SP-MS. Progressive-Relapsing (PR) MS is a type of multiple sclerosis characterized by a steady decline in abilities accompanied by sporadic attacks. There are cases of MS that are mild and can be recognized only retrospectively after many years and also rare cases of extremely rapid progression of multiple sclerosis symptoms (sometimes fatal) known as malignant or fulminant (Marburg variant) MS.

Symptoms of multiple sclerosis may be single or multiple and may range from mild to severe in intensity and short to long in duration. Complete or partial remission from symptoms occurs early in about 70% of individuals with multiple sclerosis. Visual disturbances are common while weakness with or without difficulties with coordination and balance may occur early. Muscle spasms, fatigue, numbness, and prickling pain are also common symptoms. There may be a loss of sensation, speech impediment, tremors, or dizziness. Fifty-percent of people experience mental changes such as decreased concentration, attention deficits, some degree of memory loss, inability to perform sequential tasks, or impairment in judgment. Other symptoms may include depression, manic depression, paranoia, or an uncontrollable urge to laugh and weep. As the disease worsens, individuals may experience sexual dysfunction or reduced bowel and bladder control.

There are many issues for the patient and physician to consider in treating multiple sclerosis. Goals of the therapy may include improving the speed of recovery from attacks, reducing the number of attacks or the number of MRI lesions; or attempting to slow progression of the disease. An additional goal is relief from complications due to the loss of function of affected organs (treatment with drugs aimed at specific symptoms). Support groups or counseling may be helpful for
patients and their families whose lives may be affected directly by multiple sclerosis.

Once goals have been set, initial therapy may include medications to manage attacks, symptoms, or both. An understanding of the potential side effects of drugs is critical for the patient because sometimes side effects alone deter patients from drug therapy. Patients may choose to avoid drugs altogether or choose an alternative drug that may offer relief with fewer side effects. A continuous dialogue between the patient and physician about the medications is important in determining the needs for treatment.

Drugs known to affect the immune system have become the primary focus for managing multiple sclerosis. Initially, corticosteroids, such as prednisone or methylprednisolone were widely used. However, since their effect on the immune system is non-specific (general) and they may use may cause numerous side effects, corticosteroids now tend to be used to manage only severe multiple sclerosis attacks (that is, attacks leading to physical disability or causing pain).

Since the mid 1990’s medications that alter the immune system, particularly interferons, have been used to manage multiple sclerosis. Interferons are protein messengers that cells of the immune system manufacture and use to communicate with one another. There are different types of interferons, such as alpha, beta, and gamma. All interferons have the ability to regulate the immune system and play an important role in protecting against intruders including viruses.

Physical therapy is advised to help manage complications associated with multiple sclerosis. This is especially useful in those who experience difficulty in walking, muscle spasticity or weakness. Yoga practices can be used to help in these cases as also in managing other complications such as fatigue and emotional outbursts, constipation, bladder and sexual dysfunction and pain.

**AIM OF THE YOGA THERAPY PROGRAMME:**

1. Reduce stress levels that are an aggravating factor
2. Normalise psycho-neuro-immune function that is deranged
3. Improve mind-body harmony
4. Stretch and relax all major muscle groups
5. Provide a sense of complete psychosomatic relaxation
6. Strengthen the self healing potential
7. Improve self confidence and self responsibility
8. Improve quality of life

9. Develop a positive outlook towards life itself

**YOGIC COUNSELLING:**

Yogic counselling is a vital tool in Yoga Chikitsa and deals with a wide array of topics that need to be introduced at opportune moments. This enables the development of a positive outlook towards life as well as helps improve the self reliance, self confidence and quality of life for the patient. Concepts of Swadhyaya (introspectional self analysis), Pranayama (techniques of vital energy control), Pratyahara (sensory withdrawal), Dharana (intense concentration), Dhyana (meditational oneness) and Bhajana (devotional music) and their role in stabilizing emotional turmoil and in relieving stress as well as mental fatigue needs to be brought to the fore. They bring about an excellent sense of emotional balance that is vital for good health and group work helps in bringing about emotional balance that is essential for good health.

Yoga encourages us to step back and take an objective view of our habitual patterns of behaviour and thoughts. This enables us to cope better with situations that normally put our bodies and minds under strain. Maharishi Patanjali has emphasized the need to develop following qualities in order to become mentally balanced humane beings: Vairagya (detached, dispassionate attitude), Chitta Prasadanam (acceptance of the Divine Will), Maitri (friendliness towards those who are at peace with themselves), Karuna (compassion for the suffering), Mudita (cheerfulness towards the virtuous) and Upekshanam (indifference and avoidance of the evil) etc. Adoption of the "Right Attitude" is one of the most important aspects of Yoga as a therapy and if this is not done it is merely Yogopathy and not Yoga Chikitsa.

It is important to stress on the necessity of developing the ability to relax as well as a sense of relaxation in daily life for this is a central element in Yoga. The state of relaxation is the body's own way of recharging its cells and helps to ease physical, emotional and mental tensions. Satsangha (spiritual gathering seeking knowledge of the reality) and Bhajana sessions are important aspects of Yogic therapy that are often neglected in favour of physical therapies alone. Helping patients understand their inner spiritual nature and realize that "Oneness" is health whereas "Duality" is disease; is most important. We cannot remain lonely, depressed and diseased if we realize that we are part of this wonderful, happy and healthy Universe (Multiverse).

Yoga improves pain tolerance and provides an improved quality of life. It can be safely said that Yoga helps us endure conditions that it may not be able to cure. This is vital in end life situations where it is important that the patient has a sense of improved quality of life during their end days. Yoga can also benefit caretakers
of such terminal patients who are under great stress themselves. The right-use-
ness of these modalities according to condition and needs of patients will enable us
to strike at the root cause of the disease and by correcting its origin. If this is
done properly, the manifestation of the disease corrects itself and health and
harmony can manifest once again.

PRACTICAL COMPONENTS OF THE YOGA THERAPY PROGRAMME

1. General Advise:
   - Avoid lifting weights: If you must lift anything off the ground, make
     sure that you bend the knees when bending down to lift it and then
     straighten the knees as you come up. Take someone's help if the
     object is too heavy. Don't overestimate your power!
   - Take adequate rest. Don't tire yourself. When lying down it is best to
     lie on the side. Use a thin and hard pillow to support the head and
     neck

2. Dietary habits:
   - Maintain adequate hydration
   - Take adequate quantities of fresh fruits, green vegetable salads and
     sprouts.
   - Avoid refined foodstuffs and junk foods.
   - Green leafy vegetables are important sources of vitamins that help
     regeneration.
   - Vitamin C in citrus fruits will aid the healing process.
   - Honey in warm water or herbal teas are good for cleansing the bowels
     and relieve constipation.

3. Self Traction: This technique helps to stretch the entire spinal and para
   spinal areas reliving any compression that may be present in this region. Lie
   down in a supine position and gently turn the head from side to side as if the
   head is a bottle cap and is being taken off the bottle. Let the head move
   away from the body pulling the upper part of the spine upwards. Then move
   the heels, one be one as if walking away from the body downwards. Hold this
   self-traction on the entire spine for 30 seconds. Then release and relax for
   a minute. Repeat at least three times in the morning before getting out of
   bed and at night before going to bed.

4. Gentle stretching and strengthening by various Jattis is to be one of the
   first aspects to be introduced to the patients. Hastha (hands), Pada (feet)
Shirsha (head) and Kati (hip) Jattis are very useful and bring a sense of lightness and honour into ones monotonous life. They are also safe and easy to do inmost situations. Use of Nasarga Mukha Bhastrika is very important to throw out all the tensions that may be aggravating the patient's condition.

5. Breath-body movement is to be introduced in the early sessions and the body work that brings about coordination between body movements and the breathing pattern is to be used on a regular basis for psychosomatic harmony. Some simple illustrative examples include:

- Lifting and lowering the arms
- Lifting and lowering the legs
- Turning right and left
- Bending forward and back
- Sitting up and lying down

6. Gentle Hatha Yoga Kriyas can be used to harmonise all systems and these are excellent methods to develop the self-confidence and self-reliance levels in all patients. Some illustrative examples include:

- Chatus Pada and Chiri Kriya
- Ardha Kati Chakra Kriya
- Ardha Chakra Kriya
- Padottana Kriya
- Pawan Mukta Kriya
- Sethu Kriya

7. Working with a partner gives patients a sense of belonging, thus creating a positive outlook that enables inherent healing hormones and mechanisms to be facilitated in a natural fashion. These practices can be done in different positions and some illustrative examples include:

- Baddhakona Kriya with partner helping push the knees down gently or push on the back as in Purna Baddhakona.
- Helping to push a bit more in forward bending postures
- Supporting the partner in the back bending postures
- Helping to improve the range of joint movement in different postures
- Giving isometric resistance to the movement in the postures to improve strength
8. Yoga Asanas: Modified versions of the following Asanas can be used according to the ability of the patient. Initially going into the posture and coming out in tune with the breath is advised. Later the postures can be held for longer duration in a step-by-step manner.

- Back stretching poses:
  - Standing: Tala, Ardha Kati Chakra and Meru Asana
  - Sitting: Danda Asana, Purvottana Asana and Sashanga Asana
  - Reclining: Bhujanga, Dridha Asana I & II

- Back strengthening poses:
  - Standing: Ardha Chakrasana and Ardha Utkat Asana
  - Sitting: Chatus Pada and Sharaba Asana
  - Reclining: Pawana Mukta, Nouka, Eka and Dwi Pada Shalaba and Bala Asana

- Twisting poses:
  - Standing: Trikonasana and Parshava Kona Asana
  - Sitting: Vakra Asana and Bharadwaja Asana
  - Reclining: Jathara Parivritta Asana

9. Pranayamas to energise, relax and rejuvenate:
   - Vyagaha Pranayama
   - Vibhagha and Pranava Pranayamas
   - Savitri Pranayama in Vajrasana and Shavasana in 6:3 and 8:4 patterns
   - Bhramari Pranayama
   - Chandra Nadi Pranayama and the cooling Pranayamas

10. Simplified forms of Uddiyana and Moola Bandha to strengthen and tone up the abdomino-pelvic region and reduce congestion.

11. Mudras: Brahma Mudra for the neck region with the different sounds, Aswini Mudra in various postures and Bhujangini Mudra from the prone lying down position.

12. Relaxation of body-emotion-mind complex: Shavasana with Savitri Pranayama, Tala Kriya, Dridha Kriya, Marmanasthanam Kriya and Kaya Kriya. Yoga Nidraa and Anuloma Viloma Prakriyas can be used later.

13. Dharana and Dhyana to focus the mind and channelise the healing energies of our psychic existence: Mandala Dharana on all Chakras and their respective
Bhija sounds can be done with special emphasis on Anahatha and Ajna Chakras as these centres are specially related to the psycho-neuro-immune axis. Om Japa and Ajapa-Japa can be done as also Chakra meditation to create a sense of mindfulness and being present in the NOW.

**RECOMMENDED READING:**


5. Four Chapters on Freedom. Commentary on Yoga Sutras of Patanjali by Swami Satyananda Saraswathi, Bihar School of Yoga, Munger, India. 1999


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