

Ministry of AYUSH

National Clinical Management Protocol based on Ayurveda and Yoga for management of Covid-19

Preamble

The COVID-19 pandemic has created a global health crisis posing an unprecedented public health emergency. The number of deaths and people being infected are increasing daily throughout the globe. This situation is much more severe due to possible devastating situations because of several social and economic factors. Effective management to address this infection is still evolving and attempts are being made to integrate traditional interventions along with standard of care.

Ayurveda and Yoga can certainly play a pivotal role to augment preventive measures provided in the guidelines by Ministry of Health and Family Welfare (MoHFW). The current understanding of COVID-19 indicates that good immune status is vital to prevention and to safeguard from disease progression.

Following three aspects are considered while preparing this protocol:

1. Knowledge from Ayurveda classics and experience from clinical practices
2. Empirical evidences and Biological plausibility
3. Emerging trends of ongoing clinical studies

This consensus document is developed by expert committees from All India Institute of Ayurveda (AIIA), Delhi, Institute of Post Graduate Training and Research in Ayurved (IPGTRA), Jamnagar, and National Institute of Ayurveda (NIA), Jaipur , Central Council for Research in Ayurveda (CCRAS), Central Council for Research in Yoga and Naturopathy (CCRYN), other national research organizations. This protocol is for management of mild COVID-19. Moderate to Severe COVID-19 individuals may have informed choice of treatment options. All severe cases will be referred.

This protocol and its annexure are approved by the Chairman, Interdisciplinary Committee for inclusion of Ayurveda and Yoga in the management of mild COVID-19 and approved by the empowered committee of the Interdisciplinary AYUSH Research and Development Taskforce on COVID-19, both constituted by the Ministry of AYUSH.

General and Physical measures

1. Follow physical distancing, respiratory and hand hygiene, wear mask
2. Gargle with warm water added with a pinch of turmeric and salt. Water boiled with Triphala (dried fruits of *Embllica officinalis*, *Terminalia chebula*,

Terminalia bellerica) or Yashtimadhu (*Glycyrrhiza glabra*) also can be used for gargling.

3. Nasal instillation/application of medicated oil (Anu taila or Shadbindu Taila) or plain oil (Sesame or Coconut) or nasal application of cow's ghee (Goghrita) once or twice in a day, especially before going out and after coming back to home.
4. Steam inhalation with Ajwain (*Trachyspermum ammi*) or Pudina (*Mentha spicata*) or Eucalyptus oil once a day
5. Adequate sleep of 6 to 8 hrs.
6. Moderate physical exercises
7. Follow Yoga Protocol for Primary Prevention of COVID-19 (ANNEXURE-1) and Protocol for Post COVID-19 care (including care for COVID-19 patients) (ANNEXURE-2) - as applicable

Dietary measures

1. Use warm water or boiled with herbs like ginger (*Zingiber officinale*) or coriander (*Coriandrum sativum*) or basil (*Ocimum sanctum / Ocimum basilicum*), or cumin (*Cuminum cyminum*) seeds etc., for drinking purpose.
2. Fresh, warm, balanced diet
3. Drink Golden Milk (Half tea spoon Haldi (*Curcuma longa*) powder in 150 ml hot milk) once at night. Avoid in case of indigestion.
4. Drink *Ayush Kadha* or *Kwath* (hot infusion or decoction) once a day.

Specific Measures / Symptom Management

Clinical severity	Medicines*	Doses & Timing
Prophylactic care (high risk population, primary contacts)	<i>Ashwagandha</i> (Aqueous extract of <i>Withania somnifera</i> IP) or its powder	500 mg extract or 1-3 g powder twice daily with warm water for 15 days or one month or as directed by Ayurveda physician
	<i>Guduchi Ghana vati</i> [Samshamani vati or Giloy Ghana vati having Aqueous extract of <i>Tinospora cordifolia</i> IP] or the powder of <i>Tinospora cordifolia</i>	500 mg extract or 1-3 g powder twice daily with warm water for 15 days or one month or as directed by Ayurveda physician
	<i>Chyawanaprasha</i>	10 g with warm water / milk once a day

* In addition to these medicines; general and dietary measures are to be followed.

Clinical severity	Clinical Presentation	Medicines*	Doses & Timing
Asymptomatic – COVID-19 Positive	For prevention of disease progression to symptomatic and severe form and to improve recovery rate	<i>Guduchi Ghana vati</i> [Samshamani vati or Giloy vati having Aqueous extract of <i>Tinospora cordifolia</i> IP] or the powder of <i>Tinospora cordifolia</i>	500 mg extract or 1-3 g powder twice daily with warm water for 15 days or one month or as directed by Ayurveda physician
		Guduchi + Pippali (Aqueous extracts <i>Tinospora cordifolia</i> IP and <i>Piper longum</i> IP)	375 mg twice daily with warm water for 15 days or as directed by Ayurveda physician
		AYUSH 64	500 mg twice daily with warm water for 15 days or as directed by Ayurveda physician

* In addition to these medicines; general and dietary measures are to be followed.

Clinical severity	Clinical Presentation	Clinical Parameters	Medicines*	Doses & Timing
Mild COVID-19 Positive**	Symptomatic management Fever, Headache, Tiredness Dry Cough, Sore throat Nasal congestion	Without evidence of breathlessness or hypoxia (normal situation)	Guduchi + Pippali (Aqueous extracts <i>Tinospora cordifolia</i> IP and <i>Piper longum</i> IP)	375 mg twice daily with warm water for 15 days or as directed by Ayurveda physician
			AYUSH 64	500 mg twice daily with warm water for 15 days or as directed by Ayurveda physician

* In addition to these medicines; general and dietary measures are to be followed. Refer ANNEXURE-3 for additional medicines. Physicians have to decide useful formulations from the above or from ANNEXURE-3 or substitutable classical medicines based upon their clinical judgement, suitability, availability and regional preferences. Dose may be adjusted based upon the patient's age, weight, and condition of the disease

** Guidelines for Ayurveda Practitioners for COVID-19 notified by Ministry of AYUSH may also be referred.

Clinical severity	Clinical Parameters	Medicines*	Doses & Timing
Post COVID Management	Prevention of Post COVID Lung complications like Fibrosis, Fatigue, Mental Health	<i>Ashwagandha</i> (Aqueous extract of <i>Withania somnifera</i> IP) or its powder	500 mg extract or 1-3 g powder twice daily with warm water for 15 days or one month or as directed by Ayurveda physician
		<i>Chyawanprasha</i>	10 g with warm water / milk once a day
		<i>Rasayana Churna</i> (Compound herbal powder made up of equal amounts of <i>Trichospora coronaria</i> , <i>Embilica officinalis</i> and <i>Tribulus terrestris</i>)	3 g powder twice daily with honey for one month or as directed by Ayurveda physician

* In addition to these medicines; general and dietary measures are to be followed.

* According to physician's discretion. Physicians have to decide useful formulations from the above or substitutable classical medicines based upon their clinical judgement, suitability, availability and regional preferences. Dose may be adjusted based upon the patient's age, weight and condition of the disease.

** Guidelines for Ayurveda Practitioners for COVID-19 notified by Ministry of AYUSH may also be referred.

References:

1. Guidelines for Ayurveda practitioners for COVID-19; available at <https://www.ayush.gov.in/docs/ayurved-guidlines.pdf>
2. Guidelines on Clinical Management of COVID-19; Government of India, Ministry of Health & Family Welfare; available at <https://www.mohfw.gov.in/pdf/GuidelinesonClinicalManagementofCOVID1912020.pdf>
3. Advisory from Ministry of AYUSH for meeting the challenge arising out of spread of corona virus (COVID-19) in India; available at <https://www.ayush.gov.in/docs/125.pdf>
4. Ayurveda's immunity boosting measures for self-care during COVID-19 crisis; available at <https://www.ayush.gov.in/docs/123.pdf>
5. Post COVID management protocol of Ministry of Health & Family Welfare; available at <https://www.mohfw.gov.in/pdf/PostCOVID13092020.pdf>
6. Revised SOP on preventive measures to be followed while conducting examinations to contain spread of COVID-19; available at <https://www.mohfw.gov.in/pdf/RevisedSOPonpreventivemeasurestobefollowedwhileconductingexaminationstocontainspreadofCOVID19.pdf>

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Yoga Protocol for Primary Prevention of COVID- 19

Objectives:

- To improve respiratory and cardiac efficiency
- To reduce stress and anxiety
- To enhance immunity

S. No.	Practices	Name of the Practice	Duration (Minutes)
1	Prayer		1
2	Loosening Practices	Neck Bending	2
		Shoulder's movement	2
		Trunk Movement	1
		Knee Movement	1
3	Standing Asana	Tadasana	1
		Pada-hastasana	1
		Ardha Chakraasana	1
		Trikonasana	2
	Sitting Asana	Ardha Ushtraasana	1
		Sasakasana	1
		Utthana Mandukasana	1
		Simhasana	1
		Marjariasana	1
		Vakrasana	2
		Prone Lying Asana	Makarasana
	Bhujangasana		1
	Supine Lying Asana	Setubandhasana	1
		Utthanapadasana	1
		Pawana Muktasana	1
		Markatasana	1
Shavasana		2	
4	Kriya	Vata Neti 2 rounds (30 secs each with 30 sec relax)	2
		<i>Kaphalabhati</i> (2 rounds, 30 strokes each)	2
5	Pranayama	(i) Nadi Shodhana (5 rounds)	2
		(ii) Surya Bhedhana Pranayama (5 rounds)	2
		(ii) Ujjayee Pranayama (5 rounds)	2
		(iii) Bhramari Pranayama (5 rounds)	2
6		Dhyana	5
7		Shanti Patha	1
Total Duration for Each			45

- Advised *Jalaneti kriya* weekly thrice.
- Advised steam inhalation every day or alternative day.
- Advised gargling with lukewarm saline water regularly.

Yoga Protocol for Post COVID- 19 care (including care for COVID-19 patients)

Objectives:

- To improve pulmonary function and lung capacity
- To reduce stress and anxiety
- To improve Muco-ciliary clearance

Morning Session (30 Minutes):

S. No	Practices	Name of Practice	Rounds	Duration (in Minutes)
1	Preparatory Practices (In sitting)	Tadasana		6
2		Urdhva Hastottanasana		
3		Uttana Mandukasana		
4		Shoulder rotation	3 rounds	
5		Trunk twisting	3 rounds	
6		Ardha ustrasana		
7		Sasakasana		
8	Breathing Practices	Vaataneti	2 rounds (30 secs/round)	2
9		Kapalabhati	3 rounds (30 secs/round)	2
10		Deep Breathing	10 rounds	2
11	Pranayama Practices	Nadishodhana	10 rounds	6
12		Ujjaayee	10 rounds	3
13		Bhramari	10 rounds	3
14	Meditation	Dhyana	Awareness of breathing or Awareness of Positive thoughts /emotions /actions	6
Total Duration				30

**Period of exhalation shall be more than the period inhalation, preferably 1:2 (Inhalation: Exhalation).*

Evening Session (15 Minutes):

S. No.	Name of the practice	Rounds	Duration (in Minutes)
1	Savasana (Corpse Pose) arms stretched	1	1 minute
2	Abdominal Breathing	10 rounds	2 minutes
3	Thoracic Breathing	10 rounds	2 minutes
4	Clavicular Breathing	10 rounds	2 minutes
5	Deep Breathing (lying down position)	10 rounds	2 minutes
6	Relaxation in Shavasana with awareness on Abdominal breathing		5 minutes
Total Duration			15 minutes

- Period of exhalation shall be more than the period inhalation, preferably 1:2 (Inhalation: Exhalation).
- Advised steam inhalation every day or alternative day.
- Advised to gargling with lukewarm saline water regularly.

Note:

- **Loosening Exercises:** Forward/ Backward bends, Spinal twist,
- **Breathing Exercises:** Sectional Breathing, Yogic Breathing, Hands in and Out Breathing, Hands Stretch Breathing Yogic Breathing exercises and asanas found to improve lung volumes and reduce asthma attacks and inflammation in respiratory tract.
- **Breathing and Pranayama:** Vaataneti, Kapalabhathi kriya, Bhastrika pranayama, Nadishodana pranayama for improvement in pulmonary functions.
- **Kriya:** Jalaneti practice to cleanse and decongest the upper airways. Not to be used in dry cough.

Management of Mild COVID-19 Cases

Clinical severity	Symptom	Formulation*	Dose*
Mild COVID-19	Fever with Body ache, Headache	Nagaradi Kashaya	20 ml twice a day or as directed by Ayurveda physician
	Cough	Sitopaladi Churna with Honey	2 g thrice daily with Honey or as directed by Ayurveda physician
	Sore throat, Loss of taste	Vyoshadi vati	Chew 1-2 pills as required or as directed by Ayurveda physician
	Fatigue	<i>Chyawanprasha</i>	10 g with warm water / milk once a day
	Hypoxia	Vasavaleha	10 g with warm water or as directed by Ayurveda physician
	Diarrhoea	Kutaja Ghana Vati	500 mg - 1 g thrice daily or as directed by Ayurveda physician
	Breathlessness	Kanakasava	10 ml with equal amount of water twice a day or as directed by Ayurveda physician

* In addition to these medicines; general and dietary measures are to be followed.

* According to physician's discretion. Physicians have to decide useful formulations from the above or substitutable classical medicines based upon their clinical judgement, suitability, availability and regional preferences. Dose may be adjusted based upon the patient's age, weight, and condition of the disease.

* **Guidelines for Ayurveda Practitioners for COVID-19** notified by Ministry of AYUSH may also be referred.

This is a general advisory. Attending physicians need to use their discretion to select the drugs based upon the stage of the disease, symptom complex and availability of the medicines. The recommended formulations in this attempt are in addition to standard approaches of care and prevention as well as other Ayurvedic approaches recommended for prevention earlier. Moderate to Severe COVID-19 individuals may have informed choice of treatment options.