



# Fitness Protocols and Guidelines for 18+ to 65 Years



# Goals

GOALS FOR ACTIVE LIFE STYLE



**Kiren Rijju**

Minister of State (I/C),  
Youth Affairs and Sports,  
Govt. of India

## FOREWORD

The Fit India movement, launched in August 2019, on the occasion of National Sports Day, aims to make fitness an integral part of daily life of every Indian citizen. Hitherto, the movement has witnessed wide participation from citizens across the country in various fitness related activities being promoted by the Fit India Mission Directorate.

The movement, which is in its beginning stages, has taken one of its first strategic steps to develop age appropriate fitness protocols suited to the Indian context. These protocols include simple tests and basic guidelines that demystifies what it means to 'stay fit and active'.

I am sure these protocols and guidelines will motivate us to stay rooted to an inherently active lifestyle culture that we have had in our country.

I am happy to launch the Age Appropriate Fitness Protocols and Guidelines; it is a significant step towards achieving our mission of taking the message of fitness to the masses and building a national movement.

I hope that this protocol document becomes a handy tool for our citizens and key stakeholder institutions for the movement, not only to get themselves tested on fitness levels, but also serve as a developmental tool to improve your fitness levels and cultivate an active lifestyle.



**Harsh Vardhan**

Minister of Health and Family Welfare, Govt. of India

## FOREWORD

India faces a double whammy on the disease front: lifestyle diseases as well as communicable diseases. It is imperative that we prepare and plan to tackle both of them to secure a strong and sustainable future for our country. It is with this vision that our Hon'ble Prime Minister launched the Fit India Movement last year. Change in mindset and culture change is critical towards achieving the Fit India Movement's mission of making fitness an integral part of our daily lives. Ministry of Health & Family Welfare is closely working with the Fit India Mission towards achieving this objective through appropriate policy measures and behaviour change campaigns.

Additionally, the COVID-19 pandemic has brought increased focus on the need to adopt sustainable practices and get back to the active lifestyle and traditionally healthy diet that has been a part of our culture since ages. It is therefore, the right time for Fit India Movement to spread awareness about the importance of physical activity and nutrition as fundamental pre-requisites to develop a strong immune system, healthy mind and body.

Keeping this aspect in mind, we realised the need for developing a standardized framework to help us define and measure the fitness of every individual. It is in this context that an expert committee was constituted to develop Age Appropriate Fitness Protocols and Guidelines for our vast population.

I am happy to launch Age Appropriate Fitness Protocols and Guidelines which the Ministry of Health & Family Welfare has jointly developed with Ministry of Youth Affairs & Sports.

I am sure that these Protocols and Guidelines will pave the way towards improved awareness about our fitness levels as well as motivate us towards adopting age-appropriate exercise and yoga asanas as part of our daily lifestyle. That would be a big step in improving the fitness level of our citizens and thus moving towards a fitter, healthier and prosperous India.

I wish all the success to every citizen in achieving an ideal fitness level.



**Ramesh Pokhriyal  
Nishank**

Minister of Human  
Resource Development,  
Govt. of India

## FOREWORD

The culture of sports and fitness farms its roots right from early childhood. 'How to Live' ought to be the first pillar of formal education. This involves teaching and practicing the art of taking care of one's body and health daily. Schools have to be the first formal institution after home where physical fitness is taught and practiced. They have to play very active role if sports and Fitness and teacher community to be taken as seriously as academics by our student.

Ministry of Human Resource Development has been actively working with the Ministry of Youth affairs Sports to achieve this vision for our country. The mission is to encourage every child to stay fit and play any sport of their choice.

I am proud of the fact that we have already launched a series of initiatives for school children as part of the Fit India Movement These include Fit India School Week, Fit India School Certification and Fit India Active Day Series which was a specially designed series to take care of children's physical and mental health during the lockdown period. Around 2.5 Lac schools have registered for the Fit India School Certification which I am sure will go a long way towards developing an education system in the country which looks at sports and fitness as an important enabler for the growth and development of our children.

As a next step, I am happy to launch Age-Appropriate Fitness Protocols and Guidelines. The protocols and guidelines will enable Physical Fitness Assessments to be conducted by schools and parents to monitor and track the fitness and health indicator of each child as per the Khelo India battery of tests for Class 1-3 (5-8 years) and Class 4-12 (9 to 18+ years). I hope that this protocol document becomes a handy pool for our Schools, Physical Education Teachers and all other stakeholders of our education system.





**Ravi Mital, IAS**  
Secretary – Sports  
Ministry of Youth Affairs and  
Sports, Govt. of India

## FOREWORD

Fit India Movement is a people centric movement. Under the Fit India Mission, we plan to make a behavioral change for adoption of active lifestyle.

In view of this, the Ministry of Youth Affairs and Sports is launching the Age Appropriate Fitness Protocols and Guidelines. The protocols and guidelines have been designed in a way as to enable citizens to test themselves on various parameters that define fitness, as well as simple guidelines that will ensure 30-60 minutes of moderate-to-vigorous daily physical activity. The protocols and guidelines, prepared through consultations with a wide range of experts, will facilitate our journey towards increased awareness as well as adoption of physical activities as part of our daily lives.

I look forward to working closely with various stakeholders in the coming days towards wider dissemination and use of these protocols and guidelines.



**Preeti Sudan**

Secretary, Ministry of  
Health and Family  
Welfare, Govt. of India

## FOREWORD

In the present times with the changing demographic profile and disease burden and rising health care costs on account of non-communicable and chronic diseases, it's critical to move towards the delivery of a more holistic comprehensive primary health care. For primary health care to be comprehensive, it needs to encompass the preventive, promotive, curative, rehabilitative and palliative healthcare with a strong emphasis on Wellness. This amplified focus on wellness, its preventive and promotive aspects of healthcare have multiple benefits, especially in the times of COVID-19 pandemic when people are advised to stay at home and take steps to remain physically and mentally fit

Last year, our Hon'ble Prime Minister. launched the nationwide

"Fit India Movement" to encourage people to remain healthy and agile by including physical activity and sports in our daily lives. Fitness is an integral part of maintaining a healthy life as it impacts not just our physical well-being but our mental well-being as well.

The Ministry of Health and Family Welfare has been working closely with the Fit India Mission to increase awareness among the masses on adopting a physically active and healthy lifestyle especially through their Health and Wellness Centres.

These Age Appropriate Fitness Protocols and Guidelines have been developed for three age groups (1) 5-18 years (2) 18-64 years and (3) 65 years and above jointly by both the ministries. I urge everyone to take steps towards reaching out to its various stakeholders and ensure that these protocols and guidelines are widely disseminated and put into action.

As these Fitness Protocols and guidelines are being launched at a very apt time and scenario. I am confident that this initiative will be a very useful resource and will go a long way towards ensuring a healthier India!



**Sandip Pradhan, IRS**  
Director General  
Sports Authority of India

## MESSAGE

Sports Authority of India is committed towards actualizing the Hon'ble Prime Minister's vision for making fitness an integral part of daily life of every Indian citizen. As we set out on this journey towards realizing this vision for our country, it was realized that it was important to define fitness and develop some simple and easy fitness protocols and guidelines that any common citizen could refer to.

In view of this, an expert committee was constituted by the Ministry of Youth Affairs & Sports from relevant fields to evolve Age Appropriate Fitness Protocols and Guidelines. The document, while looking at global best practices, is contextualized to the Indian context and easy to adopt.

In the coming days, Sports Authority of India intends to develop easy to follow Information, Education and Communication Materials that will facilitate easy adoption of these protocols and guidelines by our citizens.



**Dr. Henk Bekedam**  
World Health  
Organization  
Representative to India

## MESSAGE

Physical activity is important at every age. Apart from major health benefit, Physical activity has numerous other social, environmental and economic benefits and is intrinsically linked with the achievement of the Sustainable Development Goals. The Global Action Plan for Noncommunicable Disease which is endorsed by United Nations General Assembly, sets a goal of a 10% reduction in levels of physical inactivity by 2025 along with other targets to prevent premature mortality.

The Fit India Movement, a national-wide movement, that promote physical activities and sports in daily lives is a well-timed opportunity to increase the awareness at the community level with provision to increased access to fitness services.

The Age appropriate protocols and guidelines developed by Fit India Mission, Ministry of Youth Affairs and Sports are comprehensive and aims to promote physical activity in multiple settings. These guidelines are a step forward to create active people and societies by encouraging physical activity among people of all ages and abilities.

WHO India sincerely believe that Fitness Protocols and Guidelines will help in measuring and improving the physical activity level at all levels. We appreciate the efforts of Fit India Team in drafting much needed country appropriate physical activity /fitness guidelines.





**Dr. K K Deepak**

Chairman, Expert  
Committee for  
development of Fitness  
Protocols

## MESSAGE

Physical Fitness is a necessity to enable us to perform and carry out all our activities of life. Human wellbeing is always desirable in all age groups. It has been expressed beautifully and very appropriately by our celebrated poet Kavi Kalidas.

'शरीरमाद्यं खलु धर्मसाधनम्  
(*Kumārasambhava*, [Kālidāsa](#)) [5.33]

It means that the body is the foremost medium to perform Dharma (duties).

If we are healthy and physically fit, we can perform our responsibilities effectively- be it personal, social or official. Physical fitness is natural and comes easy way. Each one of us can enjoy good physical fitness provided one pays attention to it on regular basis towards achieving set goals.

Maintaining and improving physical fitness is a simple process to practise. One can remain physically fit throughout to enjoy a meaningful life. Human body is like a machine which keeps on working efficiently. However, like any other machine it needs maintenance which can be done comfortably with a little effort.

The present *Fitness Protocols and Guidelines* for imparting and measuring physical fitness are designed towards achievable set goals which are easy, comprehensive and practical for all age groups.

# Expert Committee

The following members of the Expert Committee for development of Fitness Protocols for different age groups were involved in the finalization of the fitness protocols and drafting of the document.

	<b>Name</b>	<b>Designation</b>
1	Dr. K.K. Deepak <i>Chairman of the Committee</i>	Prof. and Head of the Department (Physiology), AIIMS, New Delhi
2	Ms. Ekta Vishnoi	Mission Director, Fit India Mission
3	Dr. L. Swasticharan	CMO, (LS) Health & Family Welfare Representative of Ministry of Health and Family Welfare
4	Dr. Y. Venkata Ramana	Scientist, G (Director Grade) & Head – Dept. of Work Physiology and Sports Nutrition and MYA-NIN Department of Sports Science, ICMR, National Institute of Nutrition
5	Dr. Manjit Singh	Deputy Secretary, (PE & Sports), CBSE Representative of Ministry of Human Resources Development
6	Col. Bibhu Nayak	Advisor, Sports Injury Centre Safdarjung Hospital Representative of Ministry of Human Resources Development
7	Dr. P Majumdar	Head of Sports Science, Sports Authority of India
8	Dr. H. Sreedhar	Sports Science Expert, TransStadia Member of 'Khelo India Fitness Assessment Protocols' Committee
9	Mr. I.V. Basavaraddi	Advisor, Ministry of AYUSH
10	Mr. Sujit Panigrahi	CEO, Fitness365 Leads Khelo India Fitness Assessment Program, Sports Authority of India

# Acknowledgements

On behalf of the Committee constituted for the 'Development of Age Appropriate Fitness Protocols', I thank all individuals and institutions who have contributed to the consultations and deliberations that has gone behind developing the protocols. First and foremost, I would like to profoundly thank Shri R.S.Julaniya, Former Secretary, Department of Sports, Government of India for his dynamic leadership and steadfast support during his tenure as Secretary, Sports. Next, I express my gratitude to Dr. Manohar Agnani, Joint Secretary, Ministry of Health and Family Welfare for his warm encouragement and timely support. I would also like to express sincere thanks towards Shri L.S. Singh, Joint Secretary, Department of Sports for his guidance right from the conception stage.

Next, I owe my deepest gratitude to Shri Rohit Khanna, Chief Executive Officer, Fit India Mission, Dr. Harshvardhan Nayak, Technical Consultant, Ministry of Health and Family Welfare, Ms. Sobika Rao, Assistant Professor, Morarji Desai National Institute of Yoga, Dr. Subham Badhyal, Senior Research Officer, Sports Science, Sports Authority of India and Shri Shailendra Maurya, Section Officer (Sports Department), CBSE, Mr. Vishnu Sudhakaran, Deputy Director, Fit India Mission and Dr. Pankaj Aggarwal, Public Health Expert- Non Communicable Diseases project, Tata Trusts supporting Ministry of Health and Family Welfare for their active participation in various meetings of the Committee, their ideas and practical inputs has helped to formulate and finalise these protocols.

Finally, my heartfelt appreciation goes to project NISHTHA/Jhpiego for their creative work and excellent layout designs, Shri. Kunal Patadia and Shri. Mayank Choudhary for their secretarial assistance and coordination work.

## **Ekta Vishnoi**

Mission Director – Fit India



# Table of Contents

Expert Committee	9
Acknowledgements	10
1. Overview	14
1.1 Key Objectives	14
1.2 Physical Fitness Assessment	14
2. Test Descriptions	15
2.1 Flexibility - V Sit Reach Test	15
2.2 Muscular Strength - Naukasana (Boat Pose)	17
2.3 Abdominal/Core Strength - Partial Curl Up - 30 seconds	18
2.4 Muscular Endurance - Push Ups for Male/Modified Push Ups for Female	19
2.5 Body Composition - Body Mass Index or BMI	20
2.6 Cardiovascular Fitness - 2 km Run/Walk	22
2.7 Static Balance - Vrikshasana (Tree Pose)	23
2.8 Static Balance - Flamingo Balance Test	24
3. Fitness Protocols	25
3.1 Physical Fitness Recommendations	25
3.2 Flexibility related Activities	25
3.3 Strength related Activities	26
3.4 Endurance related Activities	28
3.5 Balance related Activities	29
4. Age-appropriate Yoga Protocols	30

4.1 Yoga Protocol for 18-35 Years of Age	30
4.2 Yoga Protocol for 35-50 Years of Age	31
4.3 Yoga Protocol for 50-65 Years of Age	32
5. Guidelines & Safety Considerations	34
5.1 Yoga Guidelines	34
5.1.1 Before the Practice	34
5.1.2 During the Practice	34
5.1.3 After the Practice	34
5.2 Environmental Consideration	35
5.3 Warm up	35
5.4 Hydration	35
5.5 Cool Down	35
5.6 Other Considerations	35
6. Benchmarks for Fitness Tests	36
6.1 V Sit Reach - for Males (cms)	36
6.2 V Sit Reach - Female (cms)	36
6.3 Naukasana - (min:sec)	36
6.4 Partial curl-up - Male (no.)	37
6.5 Partial Curl-up - Female (no.)	37
6.6 Push-ups - Male (no.)	37
6.7 Push-ups - Female (no.)	37
6.8 BMI Level	38
6.9 Two (2) Km Run/Walk - Male (min:sec)	38



6.10 Two (2) Km Run/Walk - Female (min:sec)	38
6.11 Vrikshasana - (min:sec)	39



# 1. Overview

Physical fitness is the ability to perform day to day normal activities with vigor, alertness, without undue fatigue, and with ample energy to enjoy leisure-time pursuits and meet any unforeseen emergencies. Physical fitness is composed of various attributes which individuals have or achieved that relates to their ability to perform physical activity. Each physical fitness component can be tested and trained separately. The purpose is to enable adults, aged 18-65 years to demonstrate individually and with others, the physical skills, practices and values to enjoy a lifetime of active healthy living.

## 1.1 Key Objectives

1. Ensure 30-60 Minutes of Moderate-to-vigorous Physical Activity (MVPA) per day
2. Promote 'Fitness for All'

## 1.2 Physical Fitness Assessment


The most relevant components of physical fitness for 18-65 year age group are given below:

<b>Fitness Component</b>	<b>Test</b>
Flexibility	V Sit Reach Test
Muscular Strength (Core Strength)	Naukasana (Boat Pose) or 1 Minute Partial Curl Up
Muscular Endurance	Push Ups (Male) and Modified Push Up (Female) Or Sit Ups
Body Composition	BMI
Aerobic/Cardio-vascular Fitness	2 Km Walk/Run
Balance	Vrikshasana (Tree Pose) or Flamingo Test



# 2. Test Descriptions

## 2.1 Flexibility - V Sit Reach Test

<b>What does it measure:</b>	
Common measure of flexibility, and specifically measures the flexibility of the lower back and hamstring muscles. This test is important as because tightness in this area is implicated in lumbar lordosis, forward pelvic tilt and lower back pain	
<b>How to Perform:</b>	<b>Infrastructure/Equipment Required:</b>
<ol style="list-style-type: none"> <li>1. The subject removes their shoes and sits on the floor with the measuring line between their legs and the soles of their feet placed immediately behind the baseline, heels 8-12" apart.</li> <li>2. The thumbs are clasped so that hands are together, palms facing down and placed on the measuring line.</li> <li>3. With the legs held flat by a partner, the subject slowly reaches forward as far as possible, keeping the fingers on baseline and feet flexed.</li> <li>4. After three tries, the student holds the fourth reach for three seconds while that distance is recorded.</li> <li>5. Make sure there are no jerky movements, and that the fingertips remain level and the legs flat.</li> </ol>	<ol style="list-style-type: none"> <li>1. A tape for marking the ground, marker pen, and ruler.</li> <li>2. With the tape mark a straight line two feet long on the floor as the baseline, and a measurement line perpendicular to the midpoint of the baseline extending two feet on each side.</li> <li>3. Use the marker pen to indicate every half-inch along the measurement line - the point where the baseline and measuring line intersect is the zero point.</li> </ol>
	<b>Scoring:</b>
	The score is recorded (difference between initial position and final position), in cm and mm, as the distance reached by the hand.
	
	<b>How to conduct:</b> <a href="https://www.youtube.com/watch?v=No8wJ3X3A3Y">https://www.youtube.com/watch?v=No8wJ3X3A3Y</a>
<b>Administrative Suggestion:</b>	

Proper warm-up and static stretching of the lower back and posterior thighs is very important for this test. A partner placing his/her hands lightly across knees can prevent the flexing of knees. Keep hands over each other (fish pose). In order to prevent the test apparatus from sliding away during the test, it should be placed against a wall or a similar immovable object.

The test trial is repeated if:

1. The hands reach out unevenly or
2. The knees are flexed at the time of doing the test.

**Suggested Physical activities to improve Flexibility:**

You need to stretching by toe touching, climbing stairs, Chakrasana, Halasana, Paschimottanasana, Hastottanasana, Trikonasana, Katichakrasna, Tadasana, Tai-chi and pilates on regular basis to develop flexibility.

## 2.2 Muscular Strength - Naukasana (Boat Pose)

Nauka in Sanskrit means 'boat'. It is a supine lying posture which includes raising legs and trunk.

The final position resembles the shape of a boat, hence the name.

It measures the strength of the back and abdominal muscles.

### How to perform:

1. Sit on the floor, stretch the legs out in front and keep them straight and place the palms on the floor by the side of the hip.
2. Recline the trunk slightly back and simultaneously raise the legs from the floor, keeping the knees tight and toes pointed upwards. Bring the arms in front and stretch them straight, parallel to the floor with palms facing each other.
3. Keep the legs at an angle of about 35–40 degrees from the floor and the crown of the head in line with the toes.
4. The balance of the body rests on the buttocks and no part of the spine should be allowed to touch the floor.
5. Record the total holding time.

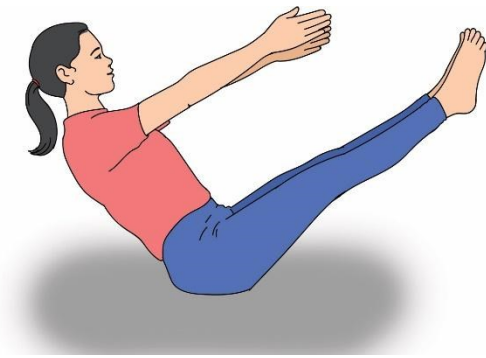
### Equipment Required:

Yoga Mat / Non – slippery surface. Make sure the asana is not performed near a wall or hard surface.

### Scoring:

Record Hold time in (10-60) seconds

Holding the pose for 10 seconds or minimum 3 breathing is optimal. It can be extended to 60 seconds with regular practice.



### Administrative Suggestion:

1. The posture should be steady, stable and comfortable.
2. Do not exceed, perform the asana according to one's capacity.
3. Care should be taken that no portion of the body above or below the waist and hips touches the ground.
4. Start the test again if the practitioner fails to maintain the ideal position.

### Suggested Physical activities:

To improve Abdominal Muscles and Muscular Endurance (push-ups/ modified push-ups for Female), you need to Practice climbing stairs, hill walk, cycling, dance, push-ups, sit ups, squats, planks, crunches, Naukasana, Shalabhasana, Akarna Dhanurasana etc. to build strength.

You need to practice Tadasana, Vrikshasana, Utkatasana, Trikonasana, Katichakrasana, Yoga Mudrasana, Quarter squat, Climb stairs, Crunches and Back extension exercise.



## 2.3 Abdominal/Core Strength - Partial Curl Up - 30 seconds

### What does it measure

The curl up test measures abdominal muscular strength and endurance of the abdominals and hip-Flexors, important in back support and core stability.

#### How to Perform:

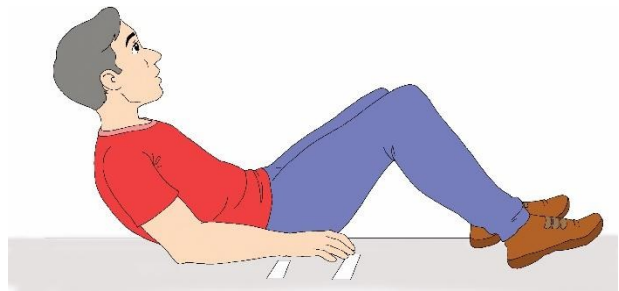
1. The subject lies on a cushioned, flat, clean surface with knees flexed, usually at 90 degrees, with hands straight on the sides (palms facing downwards) closer to the ground, parallel to the body.
2. The subject raises the trunk in a smooth motion, keeping the arms in position, curling up the desired amount (at least 6 inches above/along the ground towards the parallel strip).
3. The trunk is lowered back to the floor so that the shoulder blades or upper back touch the floor.

#### Infrastructure/Equipment Required:

Flat clean cushioned surface with two parallel strips (6 inches apart), Stopwatch

#### Scoring:

Record the maximum number of Curl ups in a certain time period 30 seconds.



#### How to conduct:

<https://youtu.be/Apz7MH3dO-M>

#### Administrative Suggestion:


Participants should be encouraged to keep a normal breathing rate. Results are usually better if the participant can maintain constant pace during the activity.

#### Suggested Physical activities:

To improve Abdominal Strength (partial curl ups) and Muscular Endurance (push-ups/ modified push-ups for Female)

1. You need to Practice climb stairs, hill walk, cycling, dance, push-ups, sit ups, squats, planks, crunches, Naukasana, Shalabhasana, Akarna Dhanurasana etc. to build strength.
2. You need to practice Tadasana, Vrikshasana, Utkatasana, Trikonasana, Katichakrasana, Yoga Mudrasana, Quarter squat, Climb stairs, Crunches and Back extension exercise.

## 2.4 Muscular Endurance - Push Ups for Male/Modified Push Ups for Female

<p style="text-align: center;"><b>What does it measure</b></p> <p style="text-align: center;">Upper body strength, endurance, and trunk stability.</p>	
<p><b>How to Perform:</b></p> <ol style="list-style-type: none"> <li>1. A standard push up begins with the hands and toes touching the floor, the body and legs in a straight line, feet slightly apart, the arms at shoulder width apart, extended and at a right angle to the body.</li> <li>2. Keeping the back and knees straight, the subject lowers the body to a predetermined point, to touch some other object, or until there is a 90-degree angle at the elbows, then returns back to the starting position with the arms extended.</li> <li>3. This action is repeated, and the test continues until exhaustion, or until they can do no more in rhythm or have reached the target number of push-ups.</li> <li>4. For Female: push-up technique is with the knees resting on the ground.</li> </ol>	<p><b>Infrastructure/Equipment Required:</b></p> <p>Flat clean cushioned surface/Gym mat</p> <p><b>Scoring:</b></p> <p>Record number of correctly completed push-ups.</p> <div style="text-align: center;">  </div> <p><b>How to conduct:</b>  <a href="https://youtu.be/wDPMtXeGuUo">https://youtu.be/wDPMtXeGuUo</a></p>
<p><b>Administrative Suggestion:</b></p> <p>Participants should be encouraged to emphasize to keep the back straight. Results are usually better if the participant can maintain constant pace during the activity.</p>	
<p><b>Suggested Physical activities to improve Muscular Strength:</b></p> <ol style="list-style-type: none"> <li>1. You need to Practice climb stairs, hill walk, cycling, dance, push-ups, sit ups, squats, planks, crunches, Naukasana, Shalabhasana, Akarna Dhanurasana etc. to build strength.</li> <li>2. You need to practice Tadasana, Vrikshasana, Utkatasana, Trikonasana, Katichakrasana, Yoga Mudrasana, Quarter squat, Climb stairs, Crunches and Back extension exercise.</li> </ol>	

## 2.5 Body Composition - Body Mass Index or BMI

### What does it measure

Body Composition refers primarily to the distribution of muscle and fat in the body. Body size such as height, length and girth are also grouped under this component.

The test performed is Body Mass Index (BMI), which is calculated from body Weight (W) and height(H).  $BMI = W / (H \times H)$ , where W = body weight in kilograms and H = height in meters.

The higher the score usually indicates higher levels of body fat.

#### Measuring Height Accurately

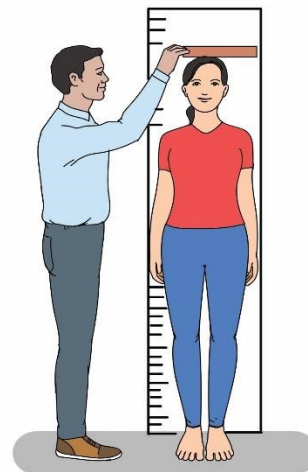
1. Remove the participant's shoes, bulky clothing, and hair ornaments, and unbraided hair that interferes with the measurement.
2. Take the height measurement on flooring that is not carpeted and against a flat surface such as a wall with no molding.
3. Have the participant stand with feet flat, together, and back against the wall. Make sure legs are straight, arms are at sides, and shoulders are level.
4. Make sure the participant is looking straight ahead and that the line of sight is parallel with the floor.
5. Take the measurement while the participant stands with head, shoulders, buttocks, and heels touching the flat surface (wall). (See illustration.) Depending on the overall body shape of the participant, all points may not touch the wall.
6. Use a flat headpiece to form a right angle with the wall and lower the headpiece until it firmly touches the crown of the head.
7. Make sure the measurer's eyes are at the same level as the headpiece.
8. Lightly mark where the bottom of the headpiece meets the wall. Then, use a metal tape to measure from the base on

#### Infrastructure/Equipment Required:

Flat, Clean surface, Weighing Machine, Stadiometer/Measuring Tape pasted on a wall

#### Scoring:

Height recorded in cm and mm. Accurately record the height to the nearest 0.1 centimeter.



Weight will be recorded in kilogram (kg) and grams (gms). Record the weight to the nearest decimal fraction (eg, 25.1 kilograms).

the floor to the marked measurement on the wall to get the height measurement.

9. Accurately record the height to the nearest 0.1 centimeter.

### Measuring Weight Accurately

1. Use a digital scale. Avoid using bathroom scales that are spring-loaded. Place the scale on firm flooring (such as tile or wood) rather than carpet.
2. Have the participant remove shoes and heavy clothing, such as sweaters.
3. Have the participant stand with both feet in the center of the scale.
4. Record the weight to the nearest decimal fraction (for example, 25.1 kilograms).



**How to conduct:**

[https://youtu.be/mVGfZ0\\_ki7M](https://youtu.be/mVGfZ0_ki7M)


### Administrative Suggestion:

Explain the test procedures to the subject.

### Suggestions for Improvement:

1. One can improve BMI by losing or gaining weight. Whether you gain or lose weight depends on caloric balance.
2. It is recommended to perform at least 30 minutes of moderate-intensity activity, above usual activity done at home or work, most days (5+) of the week to reduce the risk of chronic disease.
3. One can gain greater health benefits from doing more activity. To manage body weight and prevent gradual weight gain, 60 minutes of moderate to vigorous activity on most days (5+) of the week is necessary. In order to sustain weight loss, 60-90 minutes of daily moderate-intensity activity may be necessary.
4. For both weight maintenance and weight loss, it is important to keep food intake (calories) to a level that is equal to or less than the amount of calories to burn through daily activity.

## 2.6 Cardiovascular Fitness - 2 km Run/Walk

<b>What does it measure:</b> Cardiovascular Fitness/Cardiovascular Endurance	
<b>How to Perform:</b> <ol style="list-style-type: none"> <li>Participants are instructed to run or walk 2 kms in the fastest possible pace.</li> <li>The participants begin on signal (Starting point)- "ready, start". As they cross the finish line, elapsed time should be announced to the participants.</li> <li>Walking is permitted but the objective is to cover the distance in the shortest possible time.</li> </ol>	<b>Infrastructure/Equipment Required:</b> Stopwatch, whistle, marker cone, lime powder, measuring tape, 200 or 400 m with 1.22 m (minimum 1 m) width preferably on a flat and even playground with a marking of starting and finish line. You can also use any application on your mobile phone that tells you the distance.
	<b>Scoring:</b> Time taken for completion (Run or Walk) in min, sec.
	
	<b>How to conduct:</b> <a href="https://youtu.be/fD6qFP6srgQ">https://youtu.be/fD6qFP6srgQ</a>
<b>Administrative Suggestion:</b> Participants should be encouraged to practice running with emphasis placed on the concept of pace. Results are usually better if the participant can maintain constant pace during most of the run and perhaps using a strong closing effort.	
<b>Suggested Physical activities to improve Cardiovascular Endurance:</b> You can do pranayam (kapalbhati, bhastrika, bhramari), road cycling, swimming, aerobics, running and dancing to improve endurance.	



## 2.7 Static Balance - Vrikshasana (Tree Pose)

This is a balancing asana. The Sanskrit word vriksha means 'tree', thus, this is the 'Tree Posture'. In the imagination of the tree, foot seems as a root, leg is the trunk, arms as the branches and leaves, head as top of the tree, all make the posture in the shape of a tree.

Measures the balance and equilibrium of the body in static position.

### How to perform:

1. Stand in a relaxed and comfortable position with feet 2 inches apart and arms by the sides of the body.
2. Focus on your breath.
3. Bend your right knee & press the sole of your right foot on the inner side of the left thigh and heel against the perineum of the left thigh.
4. Once you are balanced, take a deep breath and gracefully raise your arms overhead in "namaskar mudra".
5. Look straight and ensure the spine is erect. Focus on your breath.
6. To release gently bring down the hands followed by the leg. Relax. Repeat on the other side.

### Equipment Required:

Yoga Mat / Non – slippery surface. Make sure the asana is not performed near a wall or hard surface.

### Scoring:

Record Hold time in (10-60) seconds. Holding the pose for 10 seconds or minimum three breathing is optimal. It can be extended to 60 seconds with regular practice.



### Administrative Suggestion:

1. The posture should be steady, stable and comfortable.
2. Perform according to one's capacity.
3. Start the test again if the practitioner fails to maintain the ideal position.
4. Minimum hold time should be for at least for 10 secs after attaining the final position.
5. Should be performed on both the sides.

## 2.8 Static Balance - Flamingo Balance Test

### What does it measure:

Ability to balance successfully on a single leg. This single leg balance test assesses the strength of the leg, pelvic, and trunk muscle as well as Static balance.

### How to Perform:

1. Stand on the beam. Keep balance by holding the instructor's hand (if required to start).
2. While balancing on the preferred leg, the free leg is flexed at the knee and the foot of this leg held close to the buttocks.
3. Start the watch as the instructor lets go of the participant/subject.
4. Pause the stopwatch each time the subject loses balance (either by falling off the beam or letting go of the foot being held).
5. Resume over, again timing until they lose balance. Count the number of falls in 60 seconds of balancing.
6. If there are more than 15 falls in the first 30 seconds, the test is terminated.

### Infrastructure/Equipment Required:

Non-slippery even surface, Stopwatch, can be done by just standing on a beam/block.

### Scoring:

The total number of falls or loss of balance in 60 seconds of balancing is recorded. If there are more than 15 falls in the first 30 seconds, the test is terminated.



### How to conduct:

<https://youtu.be/LN72M7lj6tg>

### Administrative Suggestion:

Participants should be encouraged to focus their eyes on stationary objects straight ahead.

### Suggested Physical activities to improve Balance (Flamingo Test):

To improve balance, you should practice one-foot balance, walking on toes and heel toe walking, walking on a straight line, skipping, hopping, vrikshasana, walking on beam etc.



## 3. Fitness Protocols

### WHO Guidelines on Physical Activity and Sedentary Behaviour 2020

#### Age Appropriate Fitness Protocols and Guidelines for age 18-64 years

1. Adults should do at least 150 minutes to 300 minutes of moderate-intensity aerobic physical activity, or do at least 75 to 150 minutes of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate and vigorous-intensity activity throughout the week for substantial health benefits;
2. Adults should also do muscle-strengthening activities at moderate or greater intensity that involve all major muscle groups on 2 or more days a week, as these provide additional health benefits.

### 3.1 Physical Fitness Recommendations

There is strong evidence that demonstrates that compared to less active adult men and women, individuals who are more active:

- have lower rates of all-cause mortality, coronary heart disease, high blood pressure, stroke, type 2 diabetes, metabolic syndrome, colon and breast cancer, and depression;
- are likely to have less risk of a hip or vertebral fracture;
- exhibit a higher level of cardiorespiratory and muscular fitness; and
- are more likely to achieve weight maintenance, have a healthier body mass and composition.

Fit India recommends the following physical activities for improvement amongst 18-65 years age group:

### 3.2 Flexibility related Activities

#### 1. Forward Bend

- a. Stand with your feet together, extend your torso down without rounding your back.
- b. Stay long throughout your neck, extending the crown of your head toward the ground.
- c. Draw your shoulders down your back.

#### 2. Calf Stretch

- a. Stand facing a wall. Put your hands against the wall at shoulder height.

- b. Put one foot in front of the other.
  - c. Bend your elbows and lean in toward the wall. You will feel a stretch in your calves.
  - d. Keep your knee straight and your hips forward. Make sure your heel stays on the ground.
5. Switch your feet and repeat the stretch.

### 3. Child's Pose

- a. Kneel on the ground.
- b. Bend at your hips. Put your arms next to your head with your hands on the ground in front of you.
- c. Sit your bottom down over your heels. You should feel a stretch in your shoulders and lower back.

### 4. Knee to Chest

- a. Lie on your back with your legs straight.
- b. Bring the right knee toward your chest.
- c. Wrap your arms underneath your knee and pull your leg closer to your body until you feel a stretch in the back of your right thigh.
- d. Repeat the stretch on your left leg.

### 5. Bend Down

- a. Stand tall with your feet hip-width apart, knees slightly bent, arms by your sides.
- b. Exhale as you bend forward at the hips, lowering your head toward the floor, while keeping your head, neck and shoulders relaxed.

## 3.3 Strength related Activities

### 1. Straight Leg Raises (Lower Body Strength)

- a. Stand tall. Use a chair or wall for balance.
- b. Forward:
  - i. Slowly lift your leg up in front of you as high as you can.
  - ii. Keep your leg straight.
  - iii. Then lower back to the starting position.
  - iv. Do not relax your leg.
  - v. Do not swing your leg.
- c. Side:
  - i. Slowly lift your leg out to the side with your toe pointed forward.
  - ii. Keep your leg straight.
  - iii. Then lower back to the starting position.
  - iv. Do not relax your leg.

- v. Do not swing your leg.
- d. After you have completed all leg lifts on one side, switch to the other side.

## **2. Push-Ups on the Wall (Upper Body Strength)**

- a. Stand facing the wall.
- b. Place your hands flat on the wall at shoulder level.
- c. Keep your arms straight.
- d. Your feet should be behind your body so that you are leaning on the wall.
- e. Stand on the balls of your feet.
- f. Bend your arms to bring your chest to the wall.
- g. Keep your legs in place.
- h. Make your body a straight line.
- i. Push your arms straight to return to the starting position.
- j. Make sure your body stays in a straight line the whole time.

## **3. Curl Up (Core Strength)**

- a. Lie on your back on the floor. Bend your hips and knees so your feet are flat on the floor. Reach your arms toward your knees.
- b. Lift your head, and then slowly lift your upper back until your hands reach your knees.
- c. Try to get your shoulder blades completely off the ground.
- d. Pause and then slowly lower all the way back down, including your head

## **4. Plank (Core Strength)**

- a. Assume a modified push-up position with your elbows bent 90 degrees and both forearms resting on the floor.
- b. Position your elbows directly underneath your shoulders and look straight toward floor.
- c. Your body should form a perfectly straight line from the crown of your head to your heels

## **5. Push-ups (Upper Body Strength)**

- a. Keep your feet together.
- b. Your weight should be on your chest.
- c. Position hands palms-down on the floor
- d. Raise your body by using your arms

## **6. Squat (Lower Body Strength)**

- a. Plant your feet on the ground
- b. Bend your knees
- c. Lower yourself in a controlled manner.

## 3.4 Endurance related Activities

### 1. Spot Running (Improves Speed & Endurance & Core Strength)

- a. Stand straight.
- b. Start jogging.
- c. Make sure to jump on toes and land on your heels.
- d. As this is a warm-up, do this for 30 to 45 seconds.

### 2. Climbing Stairs (Endurance)

- a. Step the right foot onto the first step, followed by the left.
- b. Continue this stepping motion until you've reached the top of the stairs.
- c. Always lead with the high foot.
- d. Don't let your feet cross while climbing up the stairs.

### 3. Jumping Jacks (Endurance)

- a. Jump up and spread your legs apart as you swing your arms over your head.
- b. Jump again and bring your arms back to your sides and your legs together.

### 4. March and Swing Your Arms (Endurance)

- a. March in place. Lift your knees up as high as you can. Go at a steady pace.
- b. As you bring your knee up, swing the opposite arm in front of you.
- c. Switch your arms when you switch your legs

### 5. Brisk Walking (Endurance)

- a. Walk a little initially and then gradually increase the time.
- b. Take light, easy steps and make sure your heel touches down before your toes.

### 6. Quick Air Punches (Endurance)

- a. Push off with your back foot and set foot, Quarter-rotate your jabbing shoulder as you throw the punch, fist your palm and punch.

### 7. Swimming (Endurance)

- a. Float with your face in the water, your body straight and horizontal.
- b. Stack your hands and keep your arms and legs long.
- c. Kick out and back in a circle then snap your feet together.
- d. Drop your head underwater and exhale.

### 8. Walking lunges (Muscular Endurance)

- a. Stand tall in front of a long and clear walkway.

- b. Your feet should be hip-width apart, your chest up, and your core and glutes engaged.
- c. Take a big step forwards with your left foot, lowering until both your knees are bent at 90° and your front thigh is parallel to the floor.

### 3.5 Balance related Activities

#### 1. Single Leg Stance

- a. Stand on one leg with your arms out to the side.
- b. Work up to holding this position for 30 seconds.

#### 2. Leg Swings

- a. Stand on one leg, swinging the other leg front to back.
- b. You can lightly hold onto something for help if necessary.
- c. Do 10 swings on each side.

#### 3. Walking On Lines of different shapes

- a. Find or make a straight/zigzag line on the floor.
- b. Walk on the line for 20 steps.
- c. You can put your arms out to the side for additional balance help.



## 4. Age-appropriate Yoga Protocols

Yoga has the ability to change our perspectives of life. More keenness for life, genuine and natural sense of feel good, renewed sense of health and wellbeing are some of the benefits of Yoga. Its therapeutic approaches and principles represent the essence of a broad holistic dimension to health and disease. The practice of Yoga facilitates mind and body coordination, emotional equanimity and intellectual clarity.

### 4.1 Yoga Protocol for 18-35 Years of Age

Yoga practices		Rounds	Duration
1. Prayer			1 min
2. Kriya: Kapalabhati		2 Rounds of 30 strokes	2 mins
3. Suryanamaskar		2 rounds	2 mins
4. Yoga asanas		2 rounds	7 mins
Standing	Tadasana (The Palm tree pose)		
	Katichakrasana (The Half wheel pose)		
Sitting	Ushtrasana (The Camel pose)		
	Sasakasana (The Hare pose)		
	Vakrasana (The Spinal twist pose)		
Prone	Dhanurasana (The Bow pose )		
	Makarasana (The Crocodile pose)		
Supine	Viparit Karani (Leg up the wall pose)		
	Halasana (The Plough pose)		
	Saral Matsyasana (The Fish pose)		
	Shavasana (The Corpse pose)		
5. Pranayama		5 rounds	2 mins
	Anuloma-Viloma (The Alternate nostril breathing)		
6. Dhyana (Breath awareness)			1 min
TOTAL DURATION			15 mins



## 4.2 Yoga Protocol for 35-50 Years of Age

Yoga practices		Rounds	Duration
1. Prayer			1 min
2. Kriya : Kapalabhati		2 Rounds of 30 Strokes	2 mins
3 Loosening Practices			
	Neck Bending (forwards/backwards) Shoulder Rotation (clockwise/ anticlockwise) Trunk Twisting (left & right)	2 rounds	2 mins
4 Yogasanas			
Standing	Tadasana (The Palm tree pose)	2 rounds	7 mins
	Hastottanasana (Up stretched arms with side-bending)		
	Padahastanasana (The Hands to feet pose)		
	Ardhacakrasana (The Half wheel pose)		
Sitting	Ardhaushttrasana (The Half camel pose)		
	Sasakasana (The Hare pose)		
	Uttanamandukasana (The Stretched-up frog pose)		
	Vakrasana (The Seated spinal twist pose)		
Prone	Sarala-Dhanurasana (The Simple bow pose)		
Supine	Setubandhasana (The Bridge pose)		
	Pavanamuktasana (The Wind releasing pose)		
	Shavasana (The Corpse pose)		
5 Pranayama			
	Anuloma-Viloma (The Alternate nostril breathing)	5 rounds	2 mins
6 Dhyana (Breath Awareness)			1 min
	TOTAL DURATION		15 Minutes

### 4.3 Yoga Protocol for 50-65 Years of Age

Yoga practices		Rounds	Duration
1. Prayer			1 min
2. Kriya: Kapalabhati		2 Rounds of 30 Strokes	2 mins
3. Loosening Practice		2 rounds	2 mins
	Neck movements		
	Forward and backward bending		
	Right and left bending		
	Right and left twisting		
	Shoulder movements		
	Rotation (clockwise-anticlockwise)		
	Trunk movement		
	Trunk twisting to left and right		
4 Yogasanas		2 rounds	7mins
Standing	Tadasana (The Palm tree pose)		
	Ardha-katicakrasana (The Lateral arch pose)		
Sitting	Dandasana (The Staff pose)		
	Sukhasana (The Easy Pose)		
	Vakrasana (The Seated spinal twist )		
Prone	SaralBhujangasana/Bhujangasana (The Cobra pose)		
	Ardha-Shalabhasana/ Shalabhasana (Single leg raise / Both leg raise)		
	Makarasana (The Crocodile pose)		
Supine	Markatasana (The Monkey pose)		
	Ekpad Pavanamuktasana/ Pavanamuktasana (The Wind releasing pose)		
	Shavasana (The Corpse pose)		
5 Pranayama		3 rounds	2 mins
	Anuloma-Viloma (Alternate nostril breathing)		
	Bhramari Pranayama (Humming)		
6 Dhyana			1 min
	TOTAL DURATION		15 Minutes

**Note: Yogic practices should be performed according to their own capacity.**

To know about each of the Yoga Protocols, please refer to Ministry of AYUSH Website:

<http://ayush.gov.in/genericcontent/common-yoga-protocol-2017>

Yoga Protocols Videos (in different languages):

[https://www.youtube.com/playlist?list=PLRR-Y7wX83ktZnITgjRzl9v\\_8BaYRMDf-](https://www.youtube.com/playlist?list=PLRR-Y7wX83ktZnITgjRzl9v_8BaYRMDf-)



# 5. Guidelines & Safety Considerations

## 5.1 Yoga Guidelines

Yoga practitioner should follow the general guidelines as under, while performing Yogic practices:

### 5.1.1 Before the Practice

- A non-slippery surface / Yoga mat is preferable.
- In case of Chronic disease/ Pain/Cardiac problems, consult Physician /Yoga Therapist before performing Yogic Practices.
- Cleanliness of the surroundings, body and mind.
- Yogic practice should be done on an empty/light stomach.
- Bladder and bowels should be empty.
- Girls may avoid practice during menstruation or they can practice simple relaxing Yogic practices or Dhyana.

### 5.1.2 During the Practice

- The Yogic practice shall be performed slowly, in a relaxed manner, with awareness of the body and breath.
- Do not hold the breath unless specified.
- Breathing should be through nostrils unless instructed otherwise.
- Every asana should be stable, comfortable and effortless.
- Perform asana according to one's capacity.
- The asana should be maintained without any undue tension in the muscle and with a relaxed state of mind.
- It is advisable to maintain the pose for 10 seconds. It can be extended to 60 seconds with regular practice.
- Holding the posture for 10 seconds or minimum 3 breathing is optimal.
- There are contra-indications/ limitations for each Yoga practice and should always be kept in mind.

### 5.1.3 After the Practice

- It is advised to take a bath after 20-30 minutes of Yoga practice.
- Food may be taken only after 20-30 minutes of Yoga practice.
- One should feel relaxed and comfortable after Yoga practice. If any fatigue is felt during or after Yoga practice, may please consult a Physician /Yoga Therapist.

## 5.2 Environmental Consideration

- Adequate precautionary measures related to adequate hydration and proper clothing should be taken before undertaking physical exercises in hot humid, cold & high-altitude areas.
- Adequate rest, quality sleep, Nutrition & Hydration status be ensured before undertaking exercise protocol as an essential safety prerequisite.
- Sustained and heavy exercises are to be avoided in Hot & Humid environment.
- Appropriate modification should be carried out in exercise protocols keeping in view of the prevailing local environmental conditions to be undertaken (extreme weather conditions).

## 5.3 Warm up

- Warm-up for a duration of 5-10 minutes will be an integral part of the exercise protocol.
- Light Stretching be undertaken as a part of the warm up phase of exercise protocol which has a role in injury prevention.

## 5.4 Hydration

Appropriate measures should be undertaken during the duration of exercise to maintain adequate hydration to make up for the loss of fluid & electrolyte (water and salt) during exercise.

## 5.5 Cool Down

Cooling down by undertaking light aerobic exercises & stretching of major joints for a duration of 5-10 minutes be undertaken after the end of the exercise.

## 5.6 Other Considerations

- Participants across the age group having a Body Mass Index (BMI) more than 30 are advised to start the exercise protocol in a gradual manner with relatively lesser time duration, lower intensity & lesser frequency and be encouraged to gradually increase the frequency, time & intensity till it is tolerated well.
- Adults with known medical history should exercise under supervision, after due clearance from concerned Medical Practitioners.

***Participants are encouraged to be vigilant about the possible development / occurrence of symptoms with regard to adverse medical conditions and immediately stop the exercise and seek medical attention.***



## 6. Benchmarks for Fitness Tests

### Description of Fitness Indicators

	L1 (Work Harder)	L2 (Must Improve)	L3 (Can do Better)	L4 (Good)	L5 (Very Good)	L6 (Athletic)	L7 (Sports Fit)
<b>Level</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>	<b>Level 6</b>	<b>Level 7</b>
<b>Score</b>	<b>2 Points</b>	<b>4 Points</b>	<b>6 Points</b>	<b>7 Points</b>	<b>8 Points</b>	<b>9 Points</b>	<b>10 Points</b>

The following benchmarks are the baseline reference point for current Year. At the end of the Year, the Fitness benchmarks will be generated based on the fitness assessment being done across India. For the purpose of current year's reference point, the following benchmarks are to be used:

#### 6.1 V Sit Reach - for Males (cms)

AGE (Yrs)	L1 (Work Harder)	L2 (Must Improve)	L3 (Can do Better)	L4 (Good)	L5 (Very Good)	L6 Excellent)	L7 (Super)
18-25	<11	12-13	14-17	18-19	20-21	22	>22
26-35	<9	10-12	13-16	17	18-19	20	>20
36-45	<7	8-11	12-15	16-17	18-19	20	>20
46-55	<6	7-9	10-13	14-15	16-18	19	>19
56-65	<5	6-8	9-11	13	14-16	17	>17

#### 6.2 V Sit Reach - Female (cms)

AGE (Yrs)	L1 (Work Harder)	L2 (Must Improve)	L3 (Can do Better)	L4 (Good)	L5 (Very Good)	L6 Excellent)	L7 (Super)
18-25	<14	15-16	17-19	20-21	22	23	>23
26-35	<13	14-17	18-19	20	21-22	23	>23
36-45	<12	13-16	17	18-19	20-21	22	>22
46-55	<10	11-14	15-16	17-18	19-20	21	>21
56-65	<9	10-14	15-16	16-17	18-19	20	>20

#### 6.3 Naukasana - (min:sec)

The Benchmarks for both Male and Female for this test will be developed once we have sufficient data points for all age groups. Participants are requested to record their timing and continue practice to do better.

## 6.4 Partial curl-up - Male (no.)

AGE (Yrs)	L1 (Work Harder)	L2 (Must Improve)	L3 (Can do Better)	L4 (Good)	L5 (Very Good)	L6 Excellent	L7 (Super)
18-25	<25	25-30	31-34	35-38	39-43	44-49	>49
26-35	<22	22-28	29-30	31-34	35-39	40-45	>45
36-45	<17	17-22	23-26	27-29	30-34	35-41	>42
46-55	<13	13-17	18-21	22-24	25-28	29-35	>35
56-65	<9	9-12	13-16	17-20	21-24	25-31	>31
65+	<7	7-10	11-14	15-18	19-21	22-28	>28

\* Source: Table adapted from Golding et. al. (1996). *The Y's way to Physical fitness (3rd ed.)*

## 6.5 Partial Curl-up - Female (no.)

AGE (Yrs)	L1 (Work Harder)	L2 (Must Improve)	L3 (Can do Better)	L4 (Good)	L5 (Very Good)	L6 Excellent	L7 (Super)
18-25	<18	18-24	25-28	29-32	33-36	37-43	>43
26-35	<13	13-20	21-24	25-28	29-32	33-39	>39
36-45	<7	7-14	15-18	19-22	23-26	27-33	>33
46-55	<5	5-9	10-13	14-17	18-21	22-27	>27
56-65	<3	3-6	7-9	10-12	13-17	18-24	>24
65+	<2	2-4	5-10	11-13	14-16	17-23	>23

\* Source: Table adapted from Golding et. al. (1996). *The Y's way to Physical fitness (3rd ed.)*

## 6.6 Push-ups - Male (no.)

AGE (Yrs)	L1 (Work Harder)	L2 (Must Improve)	L3 (Can do Better)	L4 (Good)	L5 (Very Good)	L6 Excellent	L7 (Super)
17-19	<4	4-10	11-18	19-34	35-46	47-56	>56
20-29	<4	4-9	10-16	17-29	30-39	39-47	>47
30-39	<2	2-7	8-12	13-24	25-33	34-41	>41
40-49	0	1-5	6-10	11-20	21-28	28-34	>34
50-59	0	1-4	5-8	9-17	18-24	25-31	>31
60-65	0	1-2	3-5	6-16	17-23	24-30	>30

\* Source: adapted from Golding, et al. (1986). *The Y's way to physical fitness (3rd ed.)*

## 6.7 Push-ups - Female (no.)

AGE (Yrs)	L1 (Work Harder)	L2 (Must Improve)	L3 (Can do Better)	L4 (Good)	L5 (Very Good)	L6 Excellent	L7 (Super)
17-19	0-1	2-5	6-10	11-20	21-27	27-35	>35
20-29	0-1	2-6	7-11	12-22	23-29	30-36	>36
30-39	0	1-4	5-9	10-21	22-30	30-37	>37
40-49	0	1-3	4-7	8-17	18-24	25-31	>31

50-59	0	1-2	3-6	7-14	15-20	21-25	>25
60-65	0	1	2-4	5-12	13-18	19-23	>23

\* Source: adapted from Golding, et al. (1986). *The Y's way to physical fitness (3rd ed.)*

## 6.8 BMI Level

BMI Categories	BMI range – kg/m <sup>2</sup>
Underweight	< 18.5
Normal (healthy weight)	from 18.5 to 25
Overweight	from 25 to 30
Obese	> 30

## 6.9 Two (2) Km Run/Walk - Male (min:sec)

AGE (Yrs)	L1 (Work Harder)	L2 (Must Improve)	L3 (Can do Better)	L4 (Good)	L5 (Very Good)	L6 Excellent)	L7 (Super)
20-29	>11:50	10:42	09:44	08:59	08:33	07:37	<07:37
30-39	>12:23	11:20	10:16	09:38	08:59	07:55	<07:55
40-49	>13:04	12:04	11:01	10:28	09:46	08:33	<08:33
50-59	>13:55	12:51	12:00	11:27	10:42	09:25	<09:25
60-65	>15:00	13:55	12:54	12:24	11:34	10:16	<10:16

Source: Cooper Test

## 6.10 Two (2) Km Run/Walk - Female (min:sec)

AGE (Yrs)	L1 (Work Harder)	L2 (Must Improve)	L3 (Can do Better)	L4 (Good)	L5 (Very Good)	L6 Excellent)	L7 (Super)
20-29	13:47	12:51	12:00	11:34	10:42	09:45	09:45
30-39	14:21	13:17	12:36	12:00	11:25	10:42	10:42
40-49	15:00	14:08	13:17	12:39	12:05	11:08	11:08
50-59	15:40	14:55	14:08	13:42	13:17	12:25	12:25
60-65	16:07	15:36	14:48	14:08	13:36	12:25	12:25

Source: Cooper Test



## 6.11 Vrikshasana - (min:sec)

The Benchmarks for both Male and Female for this test will be developed once we have sufficient data points for all age groups. Participants are requested to record their timing and continue practice to do better.



for more details, visit

<http://fitindia.gov.in>