



**India Science  
Festival**

# **COVID-19: How to keep yourself and others safe**

## **The Science View**

By India Science Festival Team

[www.indiasciencefest.org](http://www.indiasciencefest.org)

Based on input from ISF speakers and Program Committee  
Inc. scientists from MIT, Harvard, Uwash, NCBS, UC San Diego, KMC, etc.

This is not a medical view. These are best practices being followed or suggested by experts around the world, based on the current scientific understanding of the virus. Please refer a doctor in case of doubt, or any treatment needs. Also, we are still learning more about COVID-19 everyday. These practices may be updated.

# Why is COVID-19 dangerous?

- COVID-19 spreads EXPONENTIALLY if no measures are taken to contain it. What does it mean?
- Think of it this way – simplistically, if 2 people get infected on day 1, each of who infect 2 more next day, and so on.
- First 5 days: ~30; Next 5 days: ~1000; In 20 days: ~10lac and In 30 days: **100CR** !!! This is just an illustration, not the rate today in India.
- Expert models say **30CR** people can be impacted in **3 months in India** if no steps are taken. Flu has ~10CR cases annually in India.
- Out of these **2-3% will be SEVERE** and will swamp our hospitals and critical care system and lead to many deaths. In case of flu, 0.1% are severe and lead to deaths.
- **So WE NEED TO ACT NOW.**

*“The detected cases are like an iceberg at dawn. At first you don't see it at all. When you do start seeing it, you don't realize that 90% of it is still hidden, underwater. There are huge numbers of cases that will hit us.” – An ISF speaker*

# What is NOT true about COVID-19?

- There is NO proven or approved medicine to CURE COVID-19 today
- There is NO proven VACCINE for COVID-19 today
- There is NO evidence that INDIANS have a special IMMUNITY against COVID-19. Even if we have some general immunity, COVID-19 will still increase exponentially and will overwhelm us if you do not take steps now.
- There is NO conclusive evidence today that the COVID-19 will die in high temperatures or SUMMERS. We need to wait and watch.

# What is TRUE about COVID-19?

- There are asymptomatic carriers of COVID-19 infection. The virus incubates 5-6 days before showing symptoms. You can be INFECTED by someone who shows NO SYMPTOMS of cough/cold or fever. Worse, you can be asymptomatic and infect your loved ones
- As of today, COVID-19 has already spread in the community. That means the INFECTION is not limited just to people who travelled from outside recently or those in touch with them. You can GET infection from anyone.
- Infection spreads through surfaces. It lives on surfaces for the following duration:
  - Aerosol – 3 hrs
  - Copper – 4 hrs
  - Cardboard: 12 hrs or more
  - Stainless Steel – 72 hrs or more
  - Plastic – 72 hrs or more
  - Refer <https://www.nejm.org/doi/10.1056/NEJMc2004973>

# What you should NOT do as a citizen

- Don't be carefree about the situation. India has not faced a pandemic of this scale in living memory.
- At the same time, don't panic and do any behaviour which can hurt others. Don't hoard supplies, medicines, masks, or food items. It is good to get essential supplies for 10-15 days at once, NOT more.
- Don't believe in WhatsApp or Facebook messages. Only listen to credible sources of information such as WHO, Govt of India, AIIMS, IITs, etc.
- Do not forward any WhatsApp or Facebook messages which are not from credible sources. Verify the authenticity of messages, even if they are from credible sources.

# What should you DO as a citizen?-1

- The most important thing is SOCIAL DISTANCING. FOLLOW the below word-to-word without fail.
  - Stop meeting anyone other than essential. Stay at home, work from home. No group get togethers, poojas, even visit the doctor only if essential, else talk on phone, etc.
  - Avoid non-essential inter-city travel. Stay put where you are, if you can.
  - If you have any daily maids/helpers/servers/yoga instructors, please ask them to stop coming immediately. Please give them paid leave, as generously as possible.
  - Keep kids inside. Playing community cricket/football/etc. is not recommended.
  - Elderly people are specially vulnerable. Reduce their exposure to the minimum, even to family as much as possible.
  - Avoid public transport. If you need to use public transport, keep 1 metre distance from others.
  - If it is essential to meet people, don't meet different people, meet the same people over days. For instance, don't meet different family members or work folks on different days.

**It is not MACHO to go out. It is BRAVE to stay in.**

# What should you DO as a citizen?-2

- Take all precautions to prevent getting infected
  - Wash your hands properly with soap regularly throughout the day, even if you do not have external contact. Use a sanitizer when soap isn't available.
  - Don't touch your face.
  - Clean surfaces with exposure such as door knobs, railings, table, etc. regularly throughout the day.
  - Take precautions that save you from any and all illness. COVID-19 can be more dangerous if you have another illness.
- Only use a mask if you have cough/fever, with a person with cough/fever or visiting a medical facility.
- Please tell others also to practice SOCIAL DISTANCING and TAKE PRECAUTIONS.

**DON'T THINK COVID-19 will not impact you. It can impact any of us. Even if you are cured, you do not want to be a carrier of infection and kill others. You have a responsibility to be NOT INFECTED.**

# What if you have fever and either of cold/cough or shortness of breath

*Please connect with a medical doctor or [government helpline](#) in such a case. Here are some suggestions which can help you prepare for the situation.*

- Self-quarantine yourself for 15 days and continue, if symptoms last.
- Keep yourself within a room with minimum touch with family members or any help. Get essential supplies but avoid touches or contact.
- Immediately connect with medical practitioner/helpline, if possible remotely, to share symptoms and discuss if you need a COVID-19 test, how to take care of yourself or if you need hospital care. Informing the right authorities will work in your and family's benefit.
- If you show any serious symptoms, please rush to emergency. Pre-plan which hospital you will go to, who will take you and know that none of your relatives will be allowed during treatment.

Like other viral infections, COVID-19 can be managed in most cases, so do not panic, but get good advice and take the right steps.



# What can you do as a business/academic/group leader?

- Ideally, move all employees to work-from-home, while maintaining work and business continuity. It is both important that business and jobs stay, but social distancing is more important.
- If some people are essential and need to come to office for sometime, then make sure
  - They do not use public transport (pay incremental cost if possible)
  - They are spread out in office and not sitting close by
  - Give them detailed precaution guidelines.
- If your business cannot go work from home, then it may be a good idea to give it a break for at least 2 weeks. Alternatively, get people to work in rotation. Let people who want to work from home and are non-essential, do so.
- Don't ignore the safety of office boys, peons, etc.: If they need to come to office, make sure they have masks, gloves, come on demand and they do not have to use public transport (give them allowance as feasible).



[indiasciencefest.org](http://indiasciencefest.org)

# We need to **ACT NOW** to have a safe future

We need to use science principles  
to guide our daily behaviour  
to tide over the current situation

## **USEFUL DOCUMENTS**

AIIMS [Information dossier](#) on COVID-19 myths, what to do, not to do, etc.

[Blog](#) on why we must act now.

[Article](#) on Imperial college model on spread of COVID-19.

State-wise Helpline number can be found [here](#).