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COVID Facts and Myths Busters

Mosquitoes Can Also Transmit Coronavirus

No, till date there has been neither information nor evidence to suggest that the new coronavirus could be transmitted by mosquitoes. The new coronavirus is a respiratory virus, which spreads primarily through droplets generated when an infected person coughs or sneezes, or through droplets of saliva or discharge from the nose.

Face to Face Eating is Safe

No, to gain access to your cells, the viral droplets need to enter through the eyes, nose or mouth. Sneezing and coughing are most likely the primary forms of transmission. Talking loudly face-to-face or sharing a meal with someone could also pose a risk. If you are able to smell what someone had for lunch, you are inhaling what they are breathing out, including any virus in their breath. The virus is smart, it makes the nose loose the smell, so to experience the smell you inhale deeply.

There are No Predictors of Transmission

No, there are four factors that likely play a role in transmission: how close you get, how long you are near the person, whether that person projects viral droplets on you and how much you touch your face.

Loss of Smell and Taste is not a Screening Test

No, The American Academy of Otolaryngology-Head & Neck Surgery (AAO-HNS) has proposed to add anosmia and dysgeusia to the list of screening items for potential COVID-19. Informally, these symptoms have been noted among some patients who have tested positive for COVID-19, and in some cases, anosmia was the only symptom. Therefore, in the absence of other respiratory disease (e.g., rhinosinusitis, allergic rhinitis), anosmia, hyposmia, and dysgeusia should "warrant serious consideration for self-isolation and testing of these individuals" (AAO-HNS).

Covid Virus Behaves Like any Other Virus

No, dengue taught us the value of platelet count to be interpreted along with hematocrit and COVID-19 is now teaching us the value of lymphocytes in blood test. It has been a standard teaching that all viral fevers will have high lymphocyte counts. Lymphopenia will only occur with human immunodeficiency virus (HIV), severe acute respiratory syndrome (SARS)-like illness, measles and hepatitis. COVID-19 leads to low lymphocyte count. Now all studies have shown it to be an important marker of COVID-19. Clues for COVID-19 include leukopenia, evident in 30-45% of patients, and lymphocytopenia, in 85% of the patients in the case series from China.

In the latest study published on March 9, 2020, in the *Lancet*, the authors showed that baseline lymphocyte count was significantly higher in survivors than non-survivors; in survivors, lymphocyte count was lowest on Day 7 after illness onset and improved during hospitalization, whereas severe lymphopenia was observed until death in non-survivors.

Lung Involvement is Unilateral

No. in a report from a hospital in Shanghai, investigators reviewed the key initial CT findings in 51 consecutive patients hospitalized due to COVID-19 disease. All patients had thin-section noncontrast scans. Mean age was 49 (range, 16-79), and median time from symptom onset to CT was 4 days. *(Radiology 2020 Apr)*

Almost all patients had extensive multifocal involvement; bilateral abnormalities were seen in 86% of cases. Lesions were seen in the lower lobes, posterior lung fields, and peripheral lung zones. Three quarters of patients had ≥3 involved lobes. Various combinations of pure ground-glass opacities (GGOs), GGOs plus reticular or interlobular septal thickening, and GGOs plus consolidation were commonly noted. GGOs were predominant in patients whose symptoms started ≤4 days prior to CT, and areas of consolidation became increasingly evident in those with >4 days of symptoms.

Most Fevers Cannot be Differentiated Clinically

No, here are some tips:

Fever with cough and cold - Think of flu

Fever with retro-orbital eye pain - Think of dengue

Fever with joint pain which improves on bending - Think of chikungunya

Fever with lymphocytosis – Think of viral fever

Fever with lymphopenia - Think of COVID-19, acute hepatitis, HIV

Fever with jaundice - Rules out viral hepatitis

Fever subsides capillary leakage appears – Think of dengue

Low grade evening rise fever - Think of TB

Fever with chills and rigors - Think of malaria, filaria, urinary tract infection, sepsis

Fever with cough and breathlessness - Think of COVID-like illness

Fever with ESR >100 – Think of painful thyroiditis, sepsis

Fever with SGOT >SGPT – Think of dengue

Fever with angry looking throat with no cough - Think of streptococcal sore throat

Fever with red eyes - Think of Zika illness

Fever with eschar - Think of scrub typhus

Fever with single chills - Think of pneumonia

Fever with jaundice - Rule out leptospirosis

Fever with involvement of skin, joint and/or kidney - Rule out autoimmune disease

Fever with TLC >15000: Think of sepsis

Fever with positive thump sign - Rule out liver abscess

Can RT-PCR be False Negative?

Yes, negative reverse transcription-polymerase chain reaction (RT-PCR) tests on oropharyngeal swabs despite CT findings suggestive of viral pneumonia have been reported in some patients who ultimately tested positive for SARS-CoV-2. *(Radiology. 2020)* A false-negative test may be due to poor quality of specimen, or specimen collected late or very early, the specimen was not handled and shipped appropriately or technical reasons. *(WHO)*

Can a person be RT-PCR negative and IgM positive?

Yes, serologic tests, as soon as generally available and adequately evaluated, should be able to identify patients who have either current or previous infection but a negative RT-PCR. In a study of 58 patients with clinical, radiographic, and epidemiologic features suspicious for COVID-19 but with negative RT-PCR testing, an IgM enzyme-linked immunosorbent assay (ELISA) was positive in 93% (and was negative when tested separately on plasma specimens that predated the COVID-19 outbreak). *(Clin Infect Dis. 2020)*

Only Testing Can Pick up Hotspots

No, clusters can be identified by:

- Smart thermometers.
- Social site postings pattern.
- Spurt in low lymphocytes count noted by labs in an area.
- Spurt in bilateral pneumonias noted by Radiologists in an area.
- Spurt in ground glass appearances on chest CT noted by Radiologists in an area.
- Spurt of cases with fever and cough noted by GPs.
- Spurt of cases with loss of taste or smell in an area.
- Spurt of cases of interstitial pneumonia noted by Radiologists on ultrasound in an area.

All Pneumonia Patients need Admission

No, admission is needed when:

- Temperature >38°C.
- Respiratory rate >20.
- Heart rate >100 with new confusion.
- Oxygen saturation <94%.

There are no clear cut red flags for COVID-19

No, the red flags include:

- Severe shortness of breath at rest
- Difficulty in breathing
- Pain or pressure in the chest
- Cold, clammy, pale and mottled skin
- New confusion
- Becoming difficult to rouse
- Blue lips or face
- Little or no urine output
- Coughing up blood
- Neck stiffness
- Non-blanching rash