

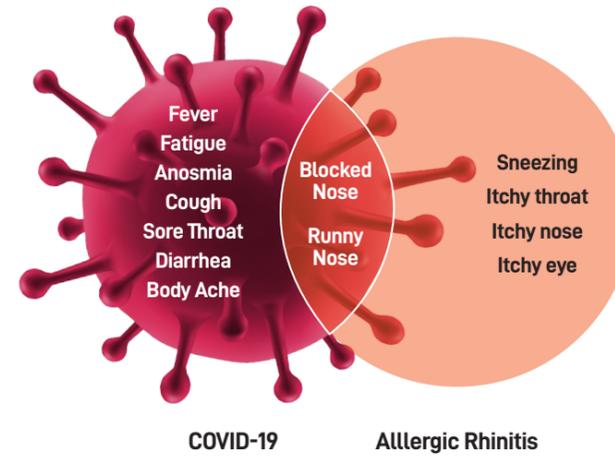


The Nose Knows

Allergic Rhinitis in the Time of COVID-19

In this age of COVID-19, the issue of allergic rhinitis (AR) has assumed an even greater importance. Does AR make one more susceptible to COVID-19? And are your nasal symptoms that of an allergy or from the coronavirus? Although they are not always clear cut, there are some distinguishing features. The chart below provides some guidance on these features.

SYMPTOM CHART



If you remain unsure about your symptoms and do not know what to do, do seek your doctor's advice as it is the best way forward.

SYMPTOMS OF AR

AR is an inflammation of the nose mucosa lining by an allergen protein that is produced outside our body. Some people overreact to an allergen which is harmless to others.

Some of AR's hallmark differentiating symptoms include sneezing and itching. There can be overlaps of symptoms with COVID-19. For example, pink eye is more common in AR than COVID-19. And although AR is also known as hay fever, there is actually no symptom of fever! People with AR will usually know the pattern of their symptoms well and can tell when they have a viral infection.

In Singapore, where there are no distinct seasons, the most common form of AR is perennial, with symptoms all year round due to air-borne allergens. For those with house dust mite allergies, they may show symptoms that include a nasal block, without sneezing or runny nose, which gets worse in the morning and during the night. However, by late morning and during the day, the symptoms clear. This is especially when they are out of the bedroom, and away from soft furnishings and dusty shelves.

REDUCING ALLERGEN BURDEN

During the pandemic, many of us have found ourselves spending a lot more time indoors. As we also start cleaning our homes more, people with house dust mite, pet dander and cockroach allergies may suffer more AR. Singapore can

get very hot and it is always humid here. This makes a perfect breeding ground for mold and house dust mites.

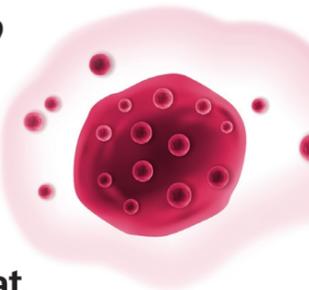
Mold may not always be visible to the naked eye. For both dust mite and mold, a drier and well-ventilated environment is helpful. Although patients often think that they cannot do anything to mitigate their symptoms, environmental control to reduce the allergen burden is very doable and is often helpful.

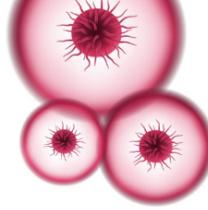
DIAGNOSIS OF AR

AR can be easily confirmed by performing a skin prick test (SPT). This is done to determine which types of allergens are the root cause of the symptoms. Besides the usual suspects, tree and grass pollen allergies are also common in Singapore. As there is no seasonal AR here, many people do not realize that they have AR as they have gotten used to breathing poorly all year round and take that as the norm. After using a decongesting nose spray, they are often shocked to find that they can breathe better and enjoy a better quality of life.

A SPT is done easily on the skin and results will be known in about 20 minutes, even for children. There is a misconception that SPT may be painful (mainly due to its name). In reality, it is not a painful procedure - it feels less than an ant bite. For people who are thinking about taking a SPT, do call ahead to

Unlike AR, COVID-19 may have other symptoms like fever, body ache and fatigue as well as cough, sore throat, nose block and diarrhoea. With different strains of viral mutations, there can also be slight differences in symptoms. However, shortness of breath is generally an indicator of worsening disease and emergency treatment should be sought in such cases.





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the clinic so that the doctor can advise on what medications and food to avoid before the test. Alternatively, a blood test can be done for patients who are consuming medication or food that interferes with the SPT.

TREATMENT OF AR

Treatment of AR can be specifically directed at reducing exposure to the identified allergens. This may allow the patient to have a reduced need for long term medications. Some measures that can be taken include simple washing of clothes in hot water above 60 degrees, using a HEPA filter and house dust mite mattress covers, creating uncluttered rooms and reducing soft furnishings. These can all greatly reduce the house dust mite burden.

For tree and grass pollen allergies, cutting time spent outdoors, and keeping windows closed during windy times and in the mornings and evenings can help. Nasal steroid or antihistamine sprays are also effective and can be supplemented with oral antihistamines. Unlike oral steroids, steroid nose sprays are not absorbed much into the body, and they do not reduce immunity. They normalize the structure and function of the nasal mucosa.

For troublesome allergies, immunotherapy can now be used, even in children. It is available in the form of liquid drops or a small soluble tablet under the tongue. AR immunotherapy can be used for non-COVID-19 or recovered COVID-19 patients. For a suspected or positive COVID-19 patient, immunotherapy should be stopped for a while.

IMPORTANCE OF TREATING AR

AR can make one more anxious and depressed, resulting in a poor quality of life, and more sinus infections and headaches – this is true even before the pandemic. With COVID-19, the anxiety can be heightened, both for the patient and for the people around the patient. Most studies done thus far do not show that AR leads to poorer outcomes in cases of COVID-19 infection. However, in a Korean study, AR was associated with

increased COVID-19 test positivity and worse clinical outcomes. Some studies have even shown that AR and rhinosinusitis are associated with a lower risk of hospitalization. No matter the results of these studies, it is important to treat AR. AR symptoms may mimic COVID-19 symptoms and cause anxiety and confusion, and reducing blowing of nose and sneezing will reduce transmission of COVID-19. After all, sneezing can expel 40,000 moisture droplets at 100 miles/hour, making landfall at least 200 feet away.

TELEMEDICINE

During the pandemic, telemedicine consult is often used for diagnosis of AR patients. For follow-up, many patients also prefer not to come to the clinic, instead only dropping by to collect their medications. Patients should continue to diligently use their prescribed nasal steroid spray and antihistamine. A dedicated telemedicine counselling session on allergen avoidance measures and consultation on treatment modalities is also very efficient.

COVID-19

Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. Its hallmark nasal symptoms include a sudden and significant loss of smell (anosmia) despite there being no nasal block in many cases. Some patients also lose their sense of taste. A history of loss of sense of smell and AR may be associated with a greater frequency of anosmia for COVID-19.



SYMPTOMS OF COVID-19

Some studies have noted that anosmia, as a sole symptom, may be associated with less severe COVID-19 infection. However, the loss of the senses of smell and taste have been found to be symptoms with higher odds ratios of 6 and 2.4 for COVID-19 positivity. A systematic review and meta-analysis of smell and taste disorders in COVID-19 by the American Academy Otolaryngology Head Neck Surgery Foundation found that anosmia is a key discriminatory symptom of COVID-19 and helps in early case identification. The estimated global pooled prevalence of loss of sense of smell among 19,424 COVID-19 patients from 27 studies was 48.47% (95% CI, 33.78%-63.29%).

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also be slight differences in symptoms. However, shortness of breath is generally an indicator of worsening disease and emergency treatment should be sought in such cases.

Symptoms can also be slightly different in children. With COVID-19 vaccinations, there are many asymptomatic COVID-19 infections. Thus, someone who looks well can, in fact, be infected with COVID-19 and transmit the virus.

COVID-19 TESTING

When you are unsure whether you have COVID-19, the correct thing to do is to perform a specific nasal swab for COVID-19. The ART (Antigen Rapid Test) can be done easily as a self-test. However, it may give false positive or false negative results. If a patient wants to be sure about whether he/she has COVID-19, a PCR (Polymerase Chain Reaction) test works better. The PCR test can also assess the viral load to see if there is significant burden of disease or infectivity, and thus, it can provide a better guide for disease management. There are GP clinics and dedicated clinics that does this test, and these are listed on the government website. While the swab is often feared by people due to its perceived painfulness, it should be noted that nasal swabs have been used often even before COVID-19, particularly for bacteria samples and flu swab samples of the nose.

REDUCING COVID-19 RISK

The best way to prevent infection is to maintain a social distance of 1 to 2 metres apart between persons. It is also important to wear a properly fitted face mask of good grade. Masks with just 1 or 2 layers of cloth or with respirator ports are not efficient at preventing infection.

Do also remember to not touch your nose, mouth and eyes without first sanitising your hands. As much as possible, reduce the situations in which the people around you are unmasked. This is because the virus mainly spreads through large respiratory droplets and smaller aerosols when people breath, huff and puff, sneeze, speak or sing. The longer the exposure to these droplets and aerosols, the higher the risk. Every country will have different risks at any given time, so it is important to follow governmental guidance strictly to avoid acute and long-term complications as much as possible.

Most people infected with COVID-19 will have mild to moderate respiratory illness and they can recover without special treatment. Unfortunately, some (regardless of age) can become very ill and will require medical attention. Older people and those with underlying medical conditions like cardiovascular disease, diabetes, chronic respiratory disease, immunocompromise or cancer are more at risk.

COVID-19 VACCINE

In general, COVID-19 vaccines help to reduce the risk of severe disease and death, reduce the duration of infectivity, reduce symptoms and reduce viral loads during infection. Most of the time, AR is not a contraindication for the COVID-19 vaccine, except



for those with severe allergic reactions to an ingredient in COVID-19 or other vaccines. If in doubt, check with your doctor. Those who need to carry an EpiPen for severe allergic reactions should also check with their doctors before taking the COVID-19 vaccines. The treatment of COVID-19 is supportive, with ongoing efforts to create drugs that lessen the severity. The usual AR medications, antibiotics and antivirals are not treatment for COVID-19.

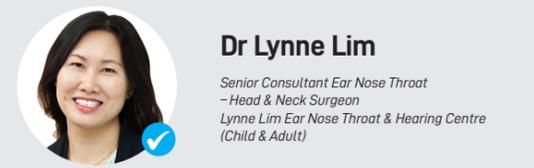
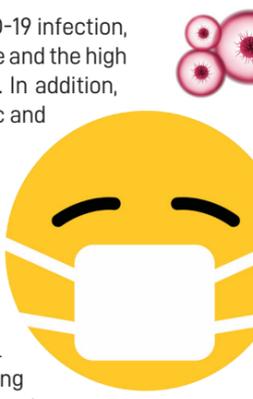
CONCURRENT AR AND COVID-19 INFECTION

It is possible to have a concurrent AR and COVID-19 infection, considering the high incidence of AR in Singapore and the high community transmission of COVID-19 currently. In addition, many COVID-19 infections may be asymptomatic and this has made transmission harder to prevent.

COVID-19 STATUS

Nobody wants to fall sick and it is not a crime (nor shameful) to contract COVID-19. In fact, knowing one's COVID-19 status allows one to monitor him/herself better (e.g., by using the oxygen meter) and get treatment earlier. This will also help a patient take greater care in preventing transmission to his/her family and friends, and to plan his/her schedule better.

COVID-19 has been with us for close to two years now and it is not going away anytime soon. We need to get the best handle on it, give thanks and carry on. **PRIME**



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Dr Lim is currently Senior Consultant Ear Nose Throat – Head & Neck Surgeon at her private practice at Mount Elizabeth Medical Centre and Farrer Park Medical Centre. She is one of the top ENT specialists in Singapore, with over 25 years of accredited ENT experience. She is also Adjunct Associate Professor to the School of Medicine at National University Singapore for research and teaching. Dr Lim graduated with the Bachelor of Medicine, Bachelor of Science degree from National University of Singapore (NUS) in 1992, and was admitted as a Fellow of the Royal College of Surgeons of Edinburgh in 1996. In 2001, she was accredited as a Specialist in Otorhinolaryngology (ENT) by the Ministry of Health (MOH) and Singapore Medical Council.



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