

sthma is a very common condition in Singapore, with about 5% of adults and 20% of children having the illness. Over the past two decades, the understanding of asthma has changed dramatically, resulting in better diagnostics, therapeutics and better patient outcomes. The approach to management is also better standardised with widespread physician engagement and education. Asthma is a chronic disorder due to exaggerated hyperresponsiveness of the airways resulting in inflammation and narrowing of the airways. An educational website solely dealing with asthma is found at www.ginasthma.org and it contains valuable resources, including write-ups and videos for patient education. Below, I highlight 8 common misconceptions about the condition.

1. ASTHMA IS NOT FATAL

Famous people who have died from asthma include Ronald Goodwin, the famous English composer who performed with the Royal Philharmonic Orchestra; Dr Christian Bernard, the South African heart surgeon who performed the first human to human heart transplant in the world; and Theresa Teng, the popular Taiwanese singer who died in a hotel room while holidaying in Chiang Mai, Thailand. The death rate due to asthma is about 2 per 100,000 population in Singapore, amounting to 100 deaths annually. Although this has dropped dramatically over the past 3 decades, this is still 2 to 3 times higher than those in most developed countries. 67% of patients here who suffered fatal or near fatal asthma (severe asthma resulting in ICU admission) were due to previously "untreated asthma". Many such patients were dependent on rapid reliever treatments and episodic care in the hospital emergency rooms, which is inappropriate in this day and age.

2. ASTHMA ONLY OCCURS IN CHILDREN

It is well known that asthma often begins in childhood, but it can occur anytime throughout life. Worldwide, about 4.3% of adults between 18 and 40 have asthma symptoms. Asthma in the elderly presents a specific difficult challenge to the physician as there is often a complex interplay with other factors like smoking, gastroesophageal reflux, obesity, heart failure, concurrent medications plus patient denial and lack of compliance. One study showed that only 42% of asthma patients aged 70 to 79 years received spirometry, which is the gold standard for diagnosis and follow-up of asthma.

3. ASTHMA PATIENTS MUST HAVE WHEEZING

In one major study, it was found that over-diagnosis of asthma happens in 30% of adults while 50% of patients remain underdiagnosed. Much of this occurs because the usual expectation is that asthma patients always have breathlessness and wheezing, and they can get instant relief with their blue inhalers (Ventolin). It is not often recognised that asthma can present in other ways, e.g. chronic cough. In fact, one of the commonest causes of chronic cough is asthma. They often get misdiagnosed as having infections like mycoplasma and exposed to unnecessary antibiotics for weeks to months. Not all patients have wheezing or shortness of breath, and not all patients with wheezing have asthma. The strongest predictor for the diagnosis of asthma is allergy.



Former football superstar David Beckham is one of many famous athletes known to have asthma.

4. IT IS EXPECTED FOR ASTHMA PATIENTS TO BE BREATHLESS ALL THE TIME

Modern medicines have made a very significant impact in the management of asthma. The cornerstone of the management of asthma is inhaled steroids. Only a small group of patients (<10 %) remain uncontrolled today, mostly due to noncompliance. Non-compliance is a huge problem in chronic asthma patients, with many defaulting on treatment and follow-up due to lack of understanding about the chronicity of the disease. Up to 30 years ago, asthma was one of the top 10 reasons for hospitalisation in Singapore. Today, asthma has dropped out of the top 20 and very few patients really need to be hospitalised because of the availability of potent medicines as preventers. The recent availability of injection biologics has also made a significant difference in the care of those who remain uncontrolled despite steroid inhalers.

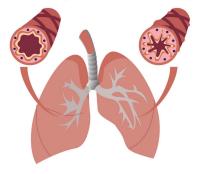
5. PEOPLE WITH ASTHMA CANNOT EXERCISE

This is guite a common fallacy. It is prudent that when one has an asthma attack, one is breathless and should not exercise until the condition is stabilised. However, there is no restriction with regards to exercise for most patients with chronic asthma. In fact, asthma does help in four ways:

- **a.** Exercise releases feel good hormones in the brain. Stressed or depressed people have a higher chance of poorly controlled asthma.
- **b.** Exercise helps one to maintain a healthy weight, reducing the risk of an asthma attack.
- c. Exercise supports a healthy immune system, which in turn helps to fight off colds and viruses. Colds and viruses trigger 80% of asthma attacks.
- **d.** Exercise raises the heart rate regularly which helps to boost lung power, increase stamina and reduce breathlessness

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> Asthma Pathology asthmatic airways normal airways



Swimming, walking, hiking and biking are considered good exercise activities for patients with asthma. Famous sportsmen with asthma include the former Manchester United football star David Beckham, the most decorated Olympian swimmer Michael Phelps and the most successful British track athlete, Sir Mo Farah.

6. IF I FEEL ALL RIGHT, I CANNOT **HAVE ASTHMA**

This is a very common misunderstanding, even among patients and many doctors. Many studies conducted across Europe, the US and Asia about 10 years ago all showed that about 40% of patients underestimate the severity of their condition. This is especially so amongst the elderly, who often attribute their asthmatic symptoms to their age during interviews on their symptoms and perception of their illness. This gap between reality and perception is only revealed through objective testing i.e. spirometry (breathing tests) and deeper probing about their symptom control and disruptions to daily activities. About 10-20% of asthma patients visit the hospital Accident & Emergency department for asthma per year and yet do not have long term care with a regular physician.

7. WITH REGARDS TO ASTHMA TREATMENT, STEROIDS IN ANY FORM IS HARMFUL

Inhaled steroids are the cornerstone of asthma management. In 2019, an inhaled combination low dose steroid with bronchodilator was recommended for the first time as the first line treatment for patients with mild asthma. This has replaced the blue inhaler (Ventolin) as the first choice rapid reliever, which has been used since the 1960s. All the notorious serious side effects of steroids, e.g. hypertension, diabetes and moon-faced obesity, are seen with oral steroids, which are rarely used nowadays in the management of chronic asthma. The dose in inhaled steroids are in micrograms (versus milligrams in oral steroids) which is a thousand times lower than the dose in oral steroids. Inhaled medicines are also delivered directly to the lungs and airways, reducing the chance of systemic absorption.

8. ASTHMA PATIENTS SHOULD NOT BE **EATING MANY THINGS**

Cold is a well known trigger for asthma attacks. However, patients with well controlled asthma generally do not have any restrictions on eating cold food, having cold drinks or ice cream. Only a small number of patients do get asthma attacks with certain foods. Most of these food allergies start during childhood and some food types are more likely to cause a problem than others. Peanuts, tree nuts, milk, eggs and shellfish are common allergens. In a small group of asthma patients, a severe life threatening allergic reaction called anaphylaxis can occur after consumption of even small amounts of certain foods. In this situation, the patient develops rapid swelling of the airways, tongue, face and neck, causing difficulty in breathing. Such patients, usually children, are likely to have had previous similar episodes and are often advised by their doctors to carry an adrenaline auto injector (called EpiPen) which must be injected immediately upon recognition of the situation. PRIME



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