Understanding the respiratory system

WHAT is the respiratory system? The primary function of the respiratory system is to supply our blood with oxygen.

It does this through breathing. When we breathe, we inhale oxygen and exhale carbon dioxide.

This exchange of gases is the respiratory system's means of getting oxygen to the blood. The respiratory system consist of:

> Lungs

The lungs are the main organs of the respiratory system. In the lungs, oxygen is taken into the body and carbon dioxide is breathed out. The red blood cells are responsible for picking up the oxygen in the lungs and carrying the oxygen to all the body cells that need it.

The red blood cells drop off the oxygen to the body cells, then pick up the carbon dioxide which is a waste gas product produced by our cells.

The red blood cells transport the carbon dioxide back to the lungs and we breathe it out when we exhale.

> Trachea

The trachea is sometimes called the windpipe. The trachea filters the air we breathe and branches into the bronchi.

> Bronchi

The bronchi are two air tubes that branch off from the trachea and carry air directly into the lungs.

> Nose

The nose takes in the outside air into the respiratory system. The hairs that line the wall are part of the air-cleaning system.

> Mouth

Air also enters through the mouth, especially for people who have a mouth-breathing habit or whose nasal passages may be temporarily obstructed, as by a cold or during heavy exercise.

> Throat

The throat collects incoming air from the nose and mouth and passes it downward to the windpipe (trachea).

What are the possible causes or risks for lung and respiratory problems?

Respiratory problems can be acute (short term) or chronic (ongoing). Acute respiratory problems can develop quickly and may require emergency treatment. Chronic respiratory problems develop more slowly and last longer.

The possible causes for lung and respiratory problems can be due to:

> Environmental pollution
> Cigarette smoke
> Indoor air pollution
> Occupational risks
> Unhealthy diet
> Obesity and overweight intake
> Physical inactivity

Any portion of the respiratory tract can be affected, and though common ailments of the respiratory system are trivial, yet at times they can be life threatening.

Here are some examples of respiratory problems:

> Asthma

Asthma is most common among children (9.5%) and women (9.7%) compared with adults (8.2%) and men (7.2%) (Source: National Health Interview Survey, National Centre for Health Statistics, Centres for Disease Control and Prevention, 2011.)

> Common cold, running nose and stuffy nose

> COPD (chronic obstructive pulmonary disease)

It is estimated that 12.7 million American adults have been diagnosed with COPD (Sources: CDC. COPD Surveillance – US, 1971-2000. MMWR. 2002; 51(SS-6). CDC. NHIS, 2011.)

> Pneumonia

> ARDS (acute respiratory distress syndrome)

> Pulmonary embolism

> Cystic fibrosis

> Hay fever and asthma

> Laryngitis

> Bronchitis

Women are almost twice as likely to be diagnosed with chronic bronchitis as men. In 2011, 3.3 million men (29.6 per 1,000 persons) were diagnosed with chronic bronchitis compared with 6.8 million women (56.7 per 1,000 persons) (Source: CDC. NHIS 2011.)

> Tuberculosis

> Emphysema

Women have historically had lower prevalence rates of emphysema than men. However, this trend may be changing much like that seen for deaths. Over the past five years, the prevalence rate among women has increased by more than 63% compared with a decrease of 6% in men.

In fact, women actually surpassed men in 2011: 21.4 per 1,000 women had emphysema (2.5 million) compared with 19.0 per 1,000 men (2.1 million) (Source: CDC. NHIS 2011.)

> Lung cancer

> Respiratory Distress Syndrome (RDS) or Infant Respiratory Distress Syndrome (IRDS)

Signs and symptoms of respiratory problems may include:

> Chronic cough

A cough that you have had for a month is chronic. This is an important early symptom. It tells you something is wrong with your respiratory system.

> Shortness of breath

Shortness of breath that doesn't go away after exercising, or that you have after little or no exertion, is not normal.

> Laboured or difficult breathing

The feeling that it is hard to breathe in or breathe out – is also a warning sign.

> Chronic mucus production

Mucus, also called sputum or phlegm, is produced by the airways. It is a defence response to infections or irritants. If your mucus production has lasted a month, this could indicate lung disease.

> Wheezing

Noisy breathing or wheezing is a sign that something unusual is blocking your lungs' airways or making them too narrow.

> Coughing up blood

If you are coughing up blood, the blood may be coming from your lungs or upper respiratory tract. Whatever the source of the blood, it is a sign of a health problem.

> Chronic chest pain

Unexplained chest pain that lasts for a month or more, especially if it gets worse when you breathe in or cough, can also be a warning sign.

Who is at risk for respiratory failure?

People who have diseases or conditions that affect the muscles, nerves, bones or tissues that support breathing are at risk for respiratory problems.

Children, the elderly and pregnant women are susceptible

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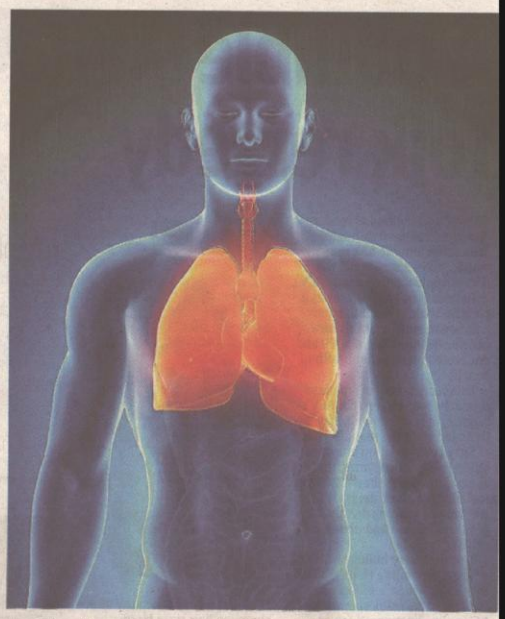

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How to address respiratory problems

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to lung problems or conditions, especially when they are exposed to indoor and outdoor air pollution in the long run.

How are respiratory problems treated?

Changes in our lifestyle and environment are responsible for poor respiratory health.

While it is impossible to remove ourselves from the environment, there are measures that can be taken to minimise the chances to develop a respiratory disease.

To have a healthy respiratory system, we should:

1. Avoid exposure to tobacco.
2. Reduce the intake of fatty foods and keep a balanced diet.
3. Limit your exposure to common allergens by having a cleaning routine around and in your home.
4. Maintain hygiene at all times.
5. Exercise, exercise, exercise!
6. Protect yourself against pollution.
7. Stay hydrated.
8. Reduce your alcohol intake.
9. Know the benefits of steam inhalation and vaporisation.

On another level of treating respiratory problems is to treat the underlying cause of the condition. The outlook for respiratory problems depends on the severity of its underlying cause, how quickly treatment begins, and your overall health.

The Tiger Milk Mushroom or Lignosus rhinocerus is a rare Malaysian medicinal mushroom that is believed to contain medicinal values and is thus able to cure lung and respiratory related ailments.

It derives its name from a Malaysian aboriginal folklore and is said to grow on the spot the tigress dripped its milk while feeding her cubs.

This mushroom consists of a cap, stem and sclerotium. The sclerotium is the part of the mushroom that contains medicinal value and features white tissue that looks and tastes like milk when ground and mixed with water.

It is used to treat asthma, coughs and to protect the lungs and respiratory system. It is also used as a general tonic.

Tiger Milk Mushroom's properties are scientifically proven to be anti-inflammatory and immune-modulating.

Its key health benefits include:

> Relieves symptoms of asthma.

> Relieves chronic cough.

> Relieves nasal and sinus conditions.

> Relieves respiratory allergy.

> Helps to repair inflamed tissues and improve respiratory functions.

> Recommended for those with chronic cough, sinus, respiratory allergies, bronchitis, asthma, smokers or those who are constantly exposed to a polluted environment.

> Works as a general tonic to strengthen a weak constitution, especially for the elderly and those with busy and hectic lifestyles.

> Helps to strengthen the immune system of children who are susceptible to colds and flu.

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