

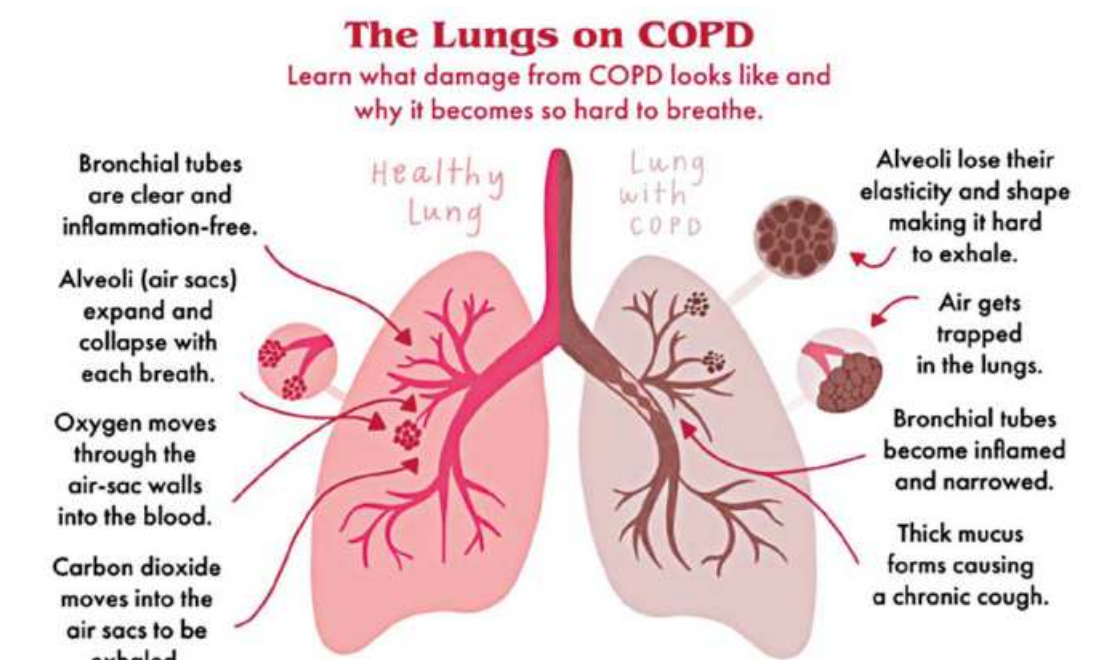
Understanding and managing COPD

Chronic obstructive pulmonary disease (COPD), is a lung disorder that makes it hard to breathe. The first symptoms can be so mild that people mistakenly chalk them up to “getting old”. People with COPD may develop chronic bronchitis, emphysema, or both. COPD tends to get worse over time, but catching it early, along with good care, can help many people stay active and may slow the disease.

About 90% of people with COPD are current or former smokers, and their disease usually appears after age 40. Secondhand smoke and exposure to environmental irritants and pollution also can increase your risk of COPD. In rare cases, the DNA passed down through a family can lead to COPD, even in ‘never smokers’.

Inside the lungs, COPD can clog the airways and damage the tiny, balloon-like sacs (alveoli) that absorb oxygen. These changes can cause shortness of breath in everyday activities, wheezing, chest tightness, constant coughing, producing a lot of mucus (sputum), feeling tired and frequent colds or flu.

Severe COPD can make it difficult to walk, cook, clean house, or even bathe. Coughing up excess mucus and feeling short of breath may worsen. Advanced illness can also cause swollen legs or feet from fluid buildup,



weight loss, less muscle strength and endurance, headache in the morning and blue/grey lips or fingernails (due to low oxygen levels).

Diagnosis can be made through physical examination and some tests. Your doctor will listen to your chest as you breathe, then will ask about your smoking history and whether you have a family history of COPD. The amount of oxygen in your blood may be measured with a blood test or a pulse oximetre.

Spirometry is the main test for COPD. Spirometry can find problems even before you have symptoms of COPD. It also helps determine the stage of COPD. A chest X-ray is not used to diagnose COPD, but it may help rule out conditions that cause similar symptoms, such as pneumonia. In advanced COPD, a chest X-ray might show lungs that appear much larger than normal.

Bronchodilators are medications that relax the

muscles of the airways to help keep them open and make it easier to breathe. Short-acting bronchodilators last about four to six hours and are used on an as-needed basis. Longer-acting bronchodilators can be used every day for people with more persistent symptoms. People with COPD may use both types of bronchodilators. If bronchodilators do not provide enough relief, people with COPD may take corticosteroids. These are usually taken by inhaler.

Steroids may also be given by pill or injection to treat flare-ups of COPD.

Pulmonary rehabilitation classes teach people ways to keep up with their daily activities without as much shortness of breath. Specific exercises help to build muscle strength, including the muscles used in breathing. If you have COPD and need supplemental oxygen, you will typically get the oxygen through tubing from an oxygen tank to the nostrils.

Walking is one of the best things you can do if you have COPD. Start with just five or 10 minutes at a time, three to five days a week. If you can walk without stopping to rest, add another minute or two. Even if you have severe COPD, you may be able to reach 30 minutes of walking at a time. Discuss your exercise plans with your doctor.

It is important to stay active, even if you feel short of breath. You may need to pace yourself or use oxygen therapy, but staying active will make you stronger. Avoid secondhand smoke, chemical fumes, and other lung irritants. Be sure to get vaccinated against the flu and pneumococcal disease. Wash hands frequently, and avoid hacking, sniffing people during cold and flu season.

Source: WebMD

HEALTHbulletin



COVID-19 and obesity: a clear and present danger in younger patients

In general, COVID-19 statistics point to markedly low mortality among patients younger than 60. But is the protective effect of youth negatively affected by obesity? Researchers used the American Heart Association's COVID-19 Cardiovascular Disease Registry to examine the effect of obesity across different age groups on mortality, receipt of mechanical ventilation, or both.

The strongest association between BMI and death or mechanical ventilation was seen in participants aged 50 or younger. Stage III obesity was associated with excess risk for in-hospital death in those 50 or younger, but not in those older than 50. Crude mortality rates were 3.3% (Class I), 5.0% (Class II), and 8.3% (Class III) in patients aged ≤50.

This study confirms that obesity confers excess risk for hospitalisation, mechanical ventilation, and death from COVID-19 — and shows, for the first time, that the adverse effects of obesity on COVID-19 outcomes may be limited to people under 50 (rather than compounding such risks in older persons). The reasons are likely multifactorial, including comorbidities such as diabetes mellitus, hypertension, and cardiovascular disease, delays in seeking care, and even the possibility of adipocytes serving as viral reservoirs. These findings should serve not only as a wake-up call to younger obese patients, but also as a guidepost for vaccine allocation to high-risk groups.

Immunity boosting turmeric: Is Lead a concern?

DR MAHFUZAR RAHMAN

Turmeric is an important ingredient in many South Asian dishes and is commonly used throughout the region for its rich flavour and medicinal properties. Bangladesh is the world's 5th largest turmeric producer. Unfortunately, recent studies conducted by icddr and Stanford University have found dangerous levels of toxic lead in turmeric samples from Bangladesh. Lead is particularly dangerous to young children and can cause permanent brain damage and other illnesses. The studies find that lead is being added to turmeric intentionally to give low quality turmeric roots a brighter colour.

Turmeric, known as the ‘golden spice’, has been used for medicinal purposes since ancient times. In folk medicine, turmeric has been used in therapeutic preparations over the centuries in different parts of the world including reducing inflammation, healing wounds, dispelling worms, improving digestion, regulating menstruation and relieving arthritis etc. During this COVID-19 pandemic, as people are particularly concerned about their health and immune systems, the consumption of turmeric for its perceived benefits may have increased.

Good quality turmeric is naturally bright yellow due to the presence of curcumin. Typically, harvested turmeric roots are boiled and then dried in the sun. However, if the roots are of poor quality or if they are damaged by rain during the drying process, they will not

achieve the bright colour desired by consumers. Since the 1980s, a practice emerged in certain regions of Bangladesh of applying an artificial dye to make dull turmeric roots more attractive to consumers, who want bright and colourful curries. At that time, merchants began adding lead chromate, a bright yellow chemical with toxic properties, to the roots during the polishing process, when the skin is removed from turmeric roots.

Lead chromate is the cheapest yellow dye available in the market. Because lead is toxic, it is only authorised in low-middle income countries (LMIC) for industrial applications, such as in paints. Farmers stated that turmeric merchants can sell poor quality roots and increase profit margins because of this practice of adulteration.

The addition of lead chromate raises a serious public health concern. Lead is a well-known neurotoxin. Elevated blood

lead levels among children have been linked with cognitive and behavioural challenges. Lead exposure among mothers may be transferred to their babies during pregnancy or through breast milk, affecting the development of the infants. In adults, lead exposure has also been linked with cardiovascular disease. It is estimated that 62% of Bangladeshi children have elevated levels of lead in their blood.

It is urged that the government should set import limits on lead chromate in Bangladesh and elsewhere to mitigate turmeric adulteration. Screening of turmeric for lead is needed to identify and stop this practice. This should be done in alignment with generating more awareness among producers of the dangers of this practice and empowering consumers with more oversight of how the turmeric they buy is processed.

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COVID-19 VACCINE

The Pfizer-BioNTech COVID-19 vaccine: remarkably effective

The rapid development of SARS-CoV-2 vaccines is one of the few bright spots of 2020. The lipid nanoparticle-formulated, nucleoside-modified mRNA vaccine developed by BioNTech and Pfizer, BNT162b2, is among the most anticipated vaccines. Researchers have examined the safety and efficacy of a regimen of two 30-µg doses in a multinational placebo-controlled, industry-sponsored trial.

The trial enrolled 43,548 participants who were 16 or older. The vaccine's efficacy against confirmed COVID-19 at least 7 days after the second dose was 95%, and appeared to be consistent by age, sex, ethnicity, body-mass index, and presence of preexisting conditions. The study was not designed to assess single-dose efficacy, but COVID-19 incidence in vaccine versus placebo recipients began to diverge 12 days after the first dose. Side effects included mild-to-moderate fever, fatigue, headache, chills, muscle or joint pain, and diarrhoea. All were more frequent after the second dose and generally resolved 1 to 2 days after immunisation.

These findings demonstrate the startlingly high efficacy of the Pfizer-BioNTech vaccine that may arise from induction of both humoral and cellular responses through the mRNA platform. That nine of the ten severe COVID-19 cases were in the placebo group diminishes concern about potential vaccine-induced disease enhancement.

The authors note that the study was not powered to detect adverse effects with incidence (0.01%, but the safety profile appears similar to that of other licensed vaccines. We still need information about the vaccine's safety; its efficacy in children, pregnant women, and immunocompromised individuals; whether it protects against asymptomatic infection and limits contagiousness; and its durability. Still, the introduction of this and other COVID-19 vaccines provides hope that the pandemic's end is on the horizon.



New PSA campaign from WHO and YouTube is a playbook for a safe holiday season

The World Health Organisation (WHO) and YouTube have partnered on an inviting and humorous public service announcement (PSA) to help battle COVID-19 fatigue as we head into the holiday season. After nine months of physical distancing, lockdowns and other preventative measures, the video reminds viewers to stay vigilant and continue to take precautions to prevent the spread of the virus as people in many parts of the world head into the holiday season.

Voiced by actor and comedian Jon Glaser (Parks and Rec, Bob's Burgers, Girls) the short animated video reinforces the WHO's recommendations that viewers should stay home when possible, wear a mask if they need to go out, wash their hands and stay away from others when in public.

The PSA also gives advice for how to tackle some of the common holiday activities that could lead to further spread of COVID-19, including travel (think twice!), large gatherings (turn around and head home!) and visiting with high-risk relatives (try a video call!).

The PSA is available on YouTube and will be promoted through early January as a pre-roll ad, in features on the YouTube homepage, and in posts from YouTube's social media handles. You can watch the video here: <https://youtu.be/IREN9O3eVkl>



Home Sample Collection Service At Your Doorstep

Staying healthy today is the most important need of the hour for health conscious people. Unlimited working hours and irregular food habits are on alarming rise. With this highly stressed lifestyle, your health needs a routine check more than ever. Our aim is to provide the best healthcare diagnostic facilities at your doorstep to detect any underlying pathology at its earliest.

RENAL CARE PACKAGE

~~5250~~
3950

- CBC
- Renal Function Test
- Serum Calcium
- Serum Electrolytes
- Urine R/E

SUGAR PACKAGE

~~7230~~
5400

- CBC
- Fasting Blood Sugar
- Serum HbA1c
- Fasting Lipid Profile
- Serum Creatinine
- Serum Electrolytes
- Urine R/E

ACTIVE CARE PACKAGE Male

~~10550~~
7900

- CBC & ESR
- Fasting Blood Sugar
- Liver Function Test
- Fasting Lipid Profile
- Renal Function Test
- Serum PSA
- Serum TSH
- Urine R/E

ACTIVE CARE PACKAGE Female Above 45 Years

~~8850~~
6650

- CBC & ESR
- Fasting Blood Sugar
- Liver Function Test
- Fasting Lipid Profile
- Renal Function Test
- Serum TSH
- Urine R/E

WELL WOMEN PACKAGE Female up to 45 years

~~11500~~
8600

- CBC & ESR
- Random Blood Sugar
- Liver Function Test
- Renal Function Test
- Hepatitis B & C
- Serum Rubella IgM
- Serum TSH
- Urine R/E

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