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Emphysema Foundation For Our Right To Survive

Emphysema Takes Your Breath Away

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COPD

Definitions pale in the face of reality

Expert panels around the world have offered different definitions of chronic obstructive pulmonary disease. But these definitions somehow don't convey the preventable tragedy of this disease.

Here's a snapshot of chronic obstructive pulmonary disease (COPD): Kids start smoking and they keep it up. Then when they reach their 40s they find themselves with a hacking cough. They continue to light up, and by their 60s they're getting shorter and shorter of breath. Moving around becomes difficult. Before long, they're in and out of the hospital with recurrent lung infections. Then what sets in is the leg swelling, the coughing up of blood, drastic weight loss, and a bluish tinge to the skin.

Definitions aren't the whole story

The American Thoracic Society describes COPD as "a disease state characterized by the presence of airflow obstruction due to chronic bronchitis or emphysema; the airflow obstruction is generally progressive, may be accompanied by airway hyper-reactivity, and may be partially reversible."

This differs somewhat from the definition set by the European Respiratory Society, which describes COPD as "a disorder characterized by reduced maximum expiratory flow and slow forced emptying of the lungs, features which do not change markedly over several months. Most of the airflow limitation is slowly progressive and irreversible. The airflow limitation is due to varying combinations of airway disease and emphysema; the relative contribution of the two processes is difficult to define in vivo." (In vivo means inside the living body, as opposed to in vitro—outside the body.)

Neither these nor other official definitions of COPD convey the brutal realities of this avoidable disease. COPD causes more than 100,000 deaths in the U.S. each year. And millions of people are disabled by the persistent obstruction of the airways. No drug treatment can slow the loss of lung function caused by emphysema (damaged air sacs in the lungs) or chronic bronchitis (persistent inflammation of the airways)—the two components of COPD. Most patients have both conditions. Stopping smoking can slow the loss of lung function. And, oxygen treatment may extend survival of

people with advanced COPD, usually for less than 2 years.

Too many names

If you're confused regarding COPD, perhaps it's because the condition is so often given other names: smoker's lung, emphysema, bronchitis, chronic bronchitis, chronic obstructive bronchitis, or obstructive lung disease. People who are told they have any of these conditions may not realize that they in fact have COPD.

Diagnostic criteria are central

As long as diagnostic criteria are clear, the precise definition of COPD doesn't really matter, according to expert opinion. In other words, COPD is diagnosed on the basis of clinical findings rather than on how well symptoms fit a given definition of the disease.

The person has to have a history of chronic progressive symptoms such as cough, sputum (phlegm) production, wheeze, and/or breathing difficulties. Typically, he or she will be a long-term smoker. More rarely, a person will develop the condition as a result of inhaling toxic particles or gases, usually in the workplace.

Airflow obstruction may be revealed if the doctor hears wheezes while listening to the chest. Spirometry (measurement of lung function), however, will demonstrate airflow obstruction when a person shows trouble exhaling forcefully. And, spirometry will indicate the extent of obstruction. Emphysema will be determined by other function tests (lung volumes, diffusion capacity). Other diseases that can cause airflow obstruction must be ruled out by chest x-rays and other tests.

Source: Am Journal of Resp and Care Medicine



HEY, DOC, WASH YOUR HANDS!

Patients shouldn't be shy about asking providers to hit the sink, experts say

It's a question no hospital patient should have to ask: "Hey, doc, did you wash your hands?" But in an era of rising rates of drug-resistant infections and overburdened medical staffs, hygiene experts say the best-protected patients are those willing to take safety into their own hands — by asking health workers to wash theirs.

Doctors, nurses and other hospital staffer too busy, too distracted — or, sometimes, too arrogant — to wash up are the target of a growing movement aimed at cutting rates of hospital-acquired infections that kill nearly 100,000 people in the

U.S. each year, according to federal estimates.

“Most patients assume health-care workers clean their hands, and they’d be surprised,” said Dr. John Boyce, director of the Hand Hygiene Resource Center at the Hospital of St. Raphael in New Haven, Conn., and a co-author of hygiene guidelines for the federal Centers for Disease Control and Prevention.

At best, hospital staffers wash adequately about half the time, repeated studies show. And some hospitals post hand hygiene rates as low as 20 percent when they start tracking the problem, said Maryanne McGuckin, a former University of Pennsylvania public health researcher who has spent her career trying to boost hand hygiene in hospitals and other health-care settings. “This isn’t magic. It’s very clear what you need to do,” McGuckin said.

In hundreds of hospitals across the country, patients are being urged to speak up when workers fail to scrub. Posters in patient rooms, tray-top cards, brochures, buttons and direct invitations from staff all deliver the same reminder: “It’s OK to ask.” That’s exactly what Dalynn Morales did. The 33-year-old cancer patient at Providence St. Vincent Medical Center in Portland, Ore., noticed that a nurse failed to clean her hands before adjusting Morales’ antibiotic line. “I said, ‘Could you please wash?’” Morales recalled, adding that the nurse quickly complied. “I’m not sure if she felt insulted or not.”

For nearly a decade, federal health agencies and researchers have been warning of the connection between health-care hand hygiene and infection. One of the nation’s largest providers, Kaiser Permanente, launched an intensive hygiene program in 2001. But with the recent surge in dangerous, even deadly, infections such as Methicillin-resistant *Staphylococcus aureus*, the stakes are higher. “We’re now making the association that people are dying of MRSA because people aren’t washing their hands,” said McGuckin.

Workers’ reasons for not washing range from simple forgetfulness to being too busy to pause between patients. Others rely on gloves, forgetting that they need to scrub before donning them. And a few doctors and other health workers seem to believe they’re immune to basic rules of sanitation.

National guidelines say they’re supposed to use alcohol-based hand rubs or soap and warm water for at least 15 seconds before and after every direct contact with a patient, with excretions, or with contaminated surfaces or objects. Too often, however, they don’t. “It’s an ever-present conundrum,” said Diane Waldo, director of quality and clinical services with the Oregon Association of Hospitals and Health Systems, which recently launched a hand hygiene program, one of several in the nation. “Everybody learns it and understands it, but compliance and accountability are another thing.”

There’s no question that improved hand hygiene reduces hospital infections, said Boyce. It’s a fact doctors have known since 1846, when Vienna’s Dr. Ignaz Semmelweis

halted patient deaths by directing his medical students to wash up between the pathology lab and the maternity ward. Recent research has reiterated the connection, including an August study in the journal *Pediatrics* that showed that boosting hygiene rates cut hospital-acquired infections by 60 percent in more than 1,000 tiny newborns at a children’s hospital in Switzerland. Even in that study, however, hygiene compliance rose only from 42 percent to 55 percent, the authors said.

For Morales, the Portland patient who piped up, the idea that hospital workers wash their hands only about half the time is astounding. “That’s something you just expect a doctor or a nurse to do,” said Morales, who learned she had leukemia after delivering her fourth child this month.

Will they be offended?

It never would have occurred to her to ask a hospital worker to wash, but St. Vincent’s officials who joined a state hospital hand hygiene project last summer made it clear with pamphlets, posters and personal invitations that Morales should feel free to speak up. Overcoming fears of insulting staff can be a chief challenge, especially among elderly patients, said Dr. Woodruff English, the epidemiologist at St. Vincent’s. “It’s a generational thing. We all have our cultural values and the older population is generally respectful of rules and authority,” he said.

McGuckin’s research shows that 80 percent of patients will speak up if they’re invited, and that when they do, hygiene can improve by as much as 56 percent within weeks. How health-care workers react when they’re reminded about hand hygiene is crucial.

When Kaiser Permanente, one of the nation’s largest health-care providers, started a hand hygiene program in 2001, some staff members, especially doctors, resented the effort, noted Dr. Steve Parodi, the agency’s infectious disease chief and Sue Barnes, a registered nurse and national safety manager. “There was some sense of reluctance on the part of physicians at having patients tell them what to do,” Barnes said.

Compliance rates rise

The alarming rise of drug-resistant infections has changed such views. At the St. Louis Children’s hospital, 2,500 employees wear buttons that say “Ask me!” and participate in activities like a monthly “Hand Hygiene Hoopla” that includes games and treats, said Susan Hibbits, the hospital’s director. In Portland, staff members have been instructed to respond with a smile and a “thank you” when patients remind them to wash their hands.

At Kaiser, the company reported that hand hygiene compliance rates rose from about 53 percent to 79 percent within three years of starting the program. In St. Louis, compliance rose from 59 percent in 2004 to 96 percent in 2007, officials said.

Verifying such improvement is difficult, however, because there’s no shared standard, said Dr. Robert Wise, vice president of standards and survey methods for the Joint Commission, a national hospital accrediting agency. Some hospitals rely on direct observation, either by staff members or independent consultants, but those results can be tainted by personal bias or practical problems.

McGuckin runs a private firm that charges hospitals to track

hand hygiene by measuring the amount of soap and sanitizer care units use over time. But that method can't exactly tell who's washing — or when.

"While there are a lot of ways to intervene, there aren't a lot of ways to measure compliance," noted Wise. The commission has been tackling hand hygiene in conjunction with the World Health Organization. This spring, it plans to publish a report on the most effective methods for measuring hospital hygiene.

Meanwhile, urging patients to monitor their health-care workers is only one of several ways to improve hygiene, said Boyce, who's a national expert on the subject. More research will be necessary to determine not only the best way to measure hygiene, but also the best interventions.

"Having a multi-disciplinary program to promote hand hygiene is important," Boyce said. Now that infections such as MRSA have become household worries, perhaps people will actually listen, Wise added. "That the public catching up with this, we view that as a good thing," he said.

Source: MSNBC.com



MED SCHOOLS PREP FOR 'SILVER TSUNAMI' *Universities adding elderly care classes in anticipation of aging Boomers*

Just a few years ago, a graduate from Brown University medical school had just an inkling about how to care for the elderly. Now, Brown and other U.S. medical schools are plugging geriatric courses into their curricula and adding specially trained faculty members as they respond to an imminent boom in the number of older Americans and the need to better understand how to properly care for the elderly. The U.S. Census Bureau projects the number of elderly Americans will nearly double to 71 million by 2030, leaving one physician trained in geriatric care for every 7,665 seniors.

The first members of the Baby Boomer generation, so named for the explosion in births in the years after World War Two, turn 65 in three years. In addition, people are living longer than ever. "The first ripples of the silver tsunami are lapping at the shores of our country, but there is not a coordinated or strategic response taking place in America," said Richard Besdine, who is director of the geriatrics division at Brown University medical school in Providence, Rhode Island, and past president of the American Geriatrics Society.

Geriatrics has never been a field of choice for young doctors. Elderly care doctors are paid less than most other physicians and surgeons and the aged can be hard to treat. They have complicated medical histories and their ailments, even such routine illnesses as pneumonia, can be more difficult to diagnose because they may be masked by other conditions. Also, drugs can affect them differently than middle-aged adults. "It's a hard job; it's not paid very well; it's complicated; and there's very little status within the hierarchy of medical specialties to being a geriatric

physician," said Gavin Hougham, senior program officer and manager of medicine programs at the John A. Hartford Foundation, which focuses on aging and health.

Out of 800,000 doctors in the United States, roughly 7,000 are geriatricians, Hougham said. The country needs another 13,000 to adequately care for today's older population, according to the American Geriatrics Society. The shortfall could reach 36,000 by 2030.

To help counter that, private groups are bankrolling medical schools' emphasis on aging. The Hartford Foundation has given more than \$40 million to 27 schools to train faculty in elderly care, and the Donald W. Reynolds Foundation has given more than \$100 million to 30 schools to include more geriatrics content and establish geriatric departments at two colleges, said Steve Anderson, the foundation's president.

Since arriving at Brown in 2000, Besdine has increased the geriatrics faculty to a dozen from two and is weaving aging content into every course at the medical school. The University of Oklahoma College of Medicine requires all third-year medical students to complete a rotation in geriatrics, said Marie Bernard, a geriatrician and chair of the school's Reynolds Department of Geriatric Medicine. The University of California at Los Angeles has integrated geriatrics training into all four years of its medical program, said David Reuben, chief of geriatrics at the school. "If they don't learn it, they still have to deal with it," Reuben said. "It's not that not learning geriatrics will cause these older people to go away. They're coming whether we're ready or not."

Source: MSNBC.com



COPD—NOT ENOUGH BREATHING ROOM

As the fourth leading cause of death, chronic obstructive pulmonary disease (COPD) is a growing health problem in the U.S. About 16 million people have been diagnosed with COPD. Another 16 million are probably still undiagnosed.

Chronic obstructive pulmonary disease (COPD) is not one disease but rather, a spectrum of lung diseases. Chronic bronchitis, emphysema, asthma, and asthmatic bronchitis may all fall under the umbrella term of COPD. Most clinicians, however, reserve COPD for chronic bronchitis and emphysema.

Breathing is blocked

Inhaled air normally travels down the trachea (windpipe) and into the lungs by way of large airways called bronchial tubes. The bronchial tubes branch out into smaller airways known as bronchioles that end in small air sacs called alveoli. Through the walls of the alveoli, oxygen moves from the airways into the bloodstream, and carbon dioxide moves from the bloodstream to be exhaled out of the body.

In a person with COPD, the lining of the bronchial tubes becomes inflamed, and the tubes fill with thick mucus. It is difficult for air to get into the lungs. COPD also damages the alveoli: As their walls become stiff and brittle, the air sacs no longer expand easily. They're unable to hold sufficient air, thus reducing the amount of oxygen that enters the blood and the amount of carbon dioxide carried out.

COPD is a progressive disease; it worsens as the cycle of inflammation and repair causes more scarring and narrowing of

the airways. The airflow obstruction, even when treated, is not entirely reversible.

Cigarettes: The main culprit

People with COPD have a cough of long duration. They tend to experience shortness of breath and occasional wheezing. They also bring up a lot of mucus when they cough.

With this line-up of symptoms, it is not surprising to learn that the major risk factor for developing COPD is exposure to cigarette smoke. Even living with someone who smokes (passive exposure) can cause COPD in non-smokers. Indeed, 80% to 90% of cases can be linked to smoking. Many people with COPD began smoking heavily when they were young and while their lungs were still maturing. Cigar and pipe smoking also raise the risk of developing COPD, but not to the same degree as cigarette smoking. Still, only 20% of cigarette smokers go on to develop COPD to a significant extent.

The next most common risk factor for COPD is a deficiency of a protein called alpha1-antitrypsin (AAT). Produced by the liver, AAT is considered to have a protective effect on the lungs. Approximately 1% to 3% of persons diagnosed with COPD are found to have an AAT deficiency. The deficiency is inherited, which may explain, at least in part, why COPD frequently clusters in certain families.

Additional risk factors for COPD include occupational exposure to particular industrial pollutants as well as dusty environments. For example, cotton and grain workers have a higher incidence of COPD. A history of childhood respiratory infections also increases the odds of developing COPD.

Various tests can confirm diagnosis

A productive cough (one that brings up phlegm) and shortness of breath, particularly on exertion, suggest that a person has some form of COPD, particularly if the person has a long history of cigarette smoke exposure.

A physical examination will detect wheezing and diminished breath sounds. A blood test may reveal an AAT deficiency, while a chest x-ray may show thickening of the bronchial tube walls and over-inflated lungs (barrel chest), all characteristics of COPD.

The most accurate diagnostic test for COPD is spirometry to measure lung function. In this test, a person breathes into a tube that is attached to an instrument called a spirometer. It measures the amount (volume) and speed (flow) of air that is exhaled. A person with COPD will have trouble exhaling forcefully.

Early diagnosis of COPD is essential. Smokers may be able to slow the progression of the disease by kicking the habit. Bronchodilators, medications that relax the airways and thereby allow the passageway for air to widen, can help relieve respiratory symptoms. So too can agents that fight inflammation. Moreover, a person with AAT deficiency can receive the enzyme intravenously.

Source: PG Med. & American Fam. Phys.

WHY DYSPNEA LEAVES US BREATHLESS

Dyspnea—shortness of breath—is an uncomfortable and sometimes frightening sensation of running out of air. Asthma and COPD are among the many conditions that can contribute to the experience.

Not surprisingly, dyspnea is common in such illnesses as pneumonia and during asthma attacks. And panic attacks can cause terrifying, but fleeting, shortness of breath.

Many patients describe their bouts with dyspnea as an inability to breathe enough air in or out or as a tightness in the chest. But so many different factors influence dyspnea from person to person that it's difficult to apply a blanket definition to the sensation beyond "breathing discomfort."

About two thirds of people with chronic, or prolonged, dyspnea have lung or heart disease. However, which lung or heart disease is not always immediately apparent. Other prominent causes of dyspnea include nasal congestion, chronic anxiety, and deconditioning (becoming less physically fit, perhaps due to illness). Dyspnea can also result from many less common disorders or from a combination of medical problems.

Dyspnea treatment depends on the underlying problem. To determine the diagnosis, blood tests, lung function tests, 24-hour heart monitoring, and/or computed tomography (CT) scanning of the lungs may be needed.

Lung trouble in two forms

Two main categories of lung disorders cause chronic dyspnea: obstructive and restrictive.

In obstructive lung disorders—primarily asthma and chronic obstructive pulmonary disease (COPD)—the airways in the lungs are narrowed, or obstructed. The components of COPD are chronic bronchitis and emphysema, both of which cause irreversible damage to the airways. Emphysema involves the gradual inflammatory destruction of air sacs in the lungs—the structures where oxygen and carbon dioxide are exchanged; the airway inflammation that characterizes bronchitis causes excessive mucus production and swelling of the airway walls, obstructing the airway.

Asthma is usually considered a reversible disease (it's not destructive), because the airways tighten but then relax. Over time, however, airway narrowing can be permanent, especially if not controlled with medication.

In a person with asthma or COPD, the airways do widen upon inhalation, allowing oxygen to flow in. But exhaling narrows the airways, making it difficult to breathe out the carbon dioxide. In order to accomplish that task and bring in fresh oxygen, the brain's respiratory center speeds up breathing, setting in motion a vicious cycle of labored breathing.

Restrictive disorders don't allow the lungs to expand enough when the person inhales. They include diseases such as idiopathic pulmonary fibrosis (stiffening of the lung tissue) as well as mechanical problems such as scoliosis (severe curvature of the spine, which can limit the movement of the rib cage). If the lungs can't expand properly, the person has to work hard to take in enough oxygen.

Breathlessness and the heart

Heart failure occurs when a damaged or weakened heart

can't pump blood throughout the body vigorously enough. Fluid that builds up as a result of the less effective pumping tends to accumulate in the lungs, creating a condition known as pulmonary edema. Pulmonary edema not only causes dyspnea but can produce a heavy or smothering sensation in the chest.

Dyspnea upon exertion often is the earliest symptom of heart failure. Sudden shortness of breath during sleep is even more telltale that heart failure is present, and probably severe.

Anxiety and hyperventilation

Severe anxiety can make a person feel as though he or she can't get enough air. Called hyperventilation syndrome, this sensation provokes fast and heavy breathing, a rhythm that sends blood levels of oxygen and carbon dioxide out of balance. This, in turn, leads to more rapid, heavy breathing as the person tries to expel carbon dioxide and take in oxygen.

Out of shape, out of breath

Deconditioning, or losing physical fitness, can cause dyspnea. But deconditioning is more likely to be a contributing factor to dyspnea, with another factor being the primary cause. For example, chronic lung or heart disease may limit a person's activity because exertion worsens breathlessness. Lack of exercise leads to more deconditioning of the lungs and heart—and more dyspnea.

Source: AFP & Merck Manual



ALL ABOUT YOU: GERD OR STOMACH ULCER?

If you're getting a burning sensation in your gut, it could be:

1. A case of heartburn
2. A stomach ulcer

How do you tell the difference?

Pinpoint the Pain

The location of the pain is one of the easiest ways to tell whether stomach discomfort is more likely to be heartburn or an ulcer. Ulcer pain tends to occur in the abdominal area -- especially just above the belly button -- but people experiencing heartburn (as well as the more serious form of heartburn -- GERD) typically feel pain in the chest and throat.

Another way to distinguish between the two: Often, eating makes stomach ulcers feel better but typically makes heartburn and GERD symptoms worse.

Source: www.Realage.com



BATTLING GERMS BY BUSTING UP THEIR GANGS

Next frontier is to treat superbugs like street thugs

Think of germs as gangsters. One thug lurking on a corner you might outrun, but a dozen swaggering down the street? Yikes. Bacteria make their own gangs, clustering quietly in the body until there's a large enough group to begin an attack. This is the next frontier in fighting drug-resistant superbugs.

The idea: Don't just try to kill bacteria. The bugs will always find a way to thwart the next antibiotic. The new goal is to disable bacteria's ability to sicken, so scientists can throw superbugs a one-two punch. And attempts to bust up germ gangs are leading the race to create these novel anti-infectives — using everything from compounds in Pinot Noir to some popular bone-building drugs. "It's a stealth approach," says chemist Kim Janda of the Scripps Research Institute, who is developing a vaccine against notorious drug-resistant staph that prevents the bacteria from ganging up. "We're trying to find the Achilles heel in drug-resistant bacteria," adds Matthew Redinbo of the University of North Carolina, Chapel Hill — who did find one.

Redinbo's team discovered that certain osteoporosis drugs blocked one E. coli germ from spreading antibiotic-resistance genes to another. Interrupting this recruitment of new gangsters confused the drug-resistant bugs enough that they committed suicide, leaving only easy-to-treat germs behind.

All of this research is in very early stages. But Dr. Julie Gerberding, chief of the Centers for Disease Control and Prevention, calls disarming bacteria a long-needed new approach. It is "like lasers going in to destroy certain parts of the bacteria as opposed to a bomb that blows the whole thing up," Gerberding told Congress recently. These "next-generation strategies are not proven yet, but really something that needs a lot more attention and focus."

Indeed, despite a rise in bacteria that withstand today's best treatments, there are few novel antibiotics under development — and germs have evolved such complex ways to survive antibiotics' frontal assault that new ones eventually will wear out, too.

Hence the quest to disarm germs. Scientists are trying to disable "virulence factors," molecules that help germs worm their way into the body, or block germ-emitted toxins.

But much of the new research centers on simply keeping germs from clustering. "We're finding new ways to prevent disease without killing the microbial agent ... rather, neutralizing it somehow," says University of Rochester dentist Hyun Koo, who is using compounds left over from vineyards' wine-making to bust up gooey bacteria masses known as biofilms. Adds Scripps' Janda: "If you break them up, they don't have that strength in number. They're not going to do like a gang and beat people up."

Among the methods under study:

Germs talk to each other, by sending out radar-like chemical signals that sense when enough of their mates are lurking for them to switch on and sicken. Scientists call this "quorum sensing." Jam their frequencies, and the germs won't know when they've got a quorum — they'll just hang around harmlessly until the immune system picks them off.

Janda's team designed a molecule that triggers the immune system to form bloodhound-like antibodies that gobble up the communication chemicals sent by deadly staph aureus bacteria. Janda injected some mice with those antibodies and others with a dummy drug. Then he gave all the mice a lethal dose of staph. The antibody-protected mice never got sick, while their unprotected neighbors died within a day.

Other times germs need only to rub shoulders with a neighbor to start doing damage. Antibiotic-resistant *E. coli* snuggles up to a still treatable germ and shoots the newcomer with DNA that will turn it drug-resistant, too.

At UNC, Redinbo's team found the enzyme that sparks that whole process could be blocked by bone-building osteoporosis drugs already on the market, including one called etidronate. When they added just a bone drug, not antibiotics, to the drinking water of *E. coli*-infected mice, the rodents' bacteria levels plummeted. Why? The resistant germs not only couldn't spread their bad genes, they wound up committing suicide.

"This was a huge surprise," says Redinbo, who now is testing if the approach will work on other bacteria — and is checking his hospital's records to see if women taking osteoporosis drugs just might be less vulnerable to hospital-spread infections.

Then there are biofilms, where germs literally glue themselves together under a crusty shell difficult for antibiotics to penetrate. Rochester's Koo aims to break up cavity-causing dental plaque, the best known biofilm, with compounds called polyphenols culled from fermented grape skins.

A type of strep bacteria forms dental plaque, by secreting enzymes called GTFs that in turn produces the biofilm's glue. When Koo added polyphenols to lab dishes teeming with strep, GTF production plummeted 85 percent. The germs couldn't get sticky enough. For the record, extracts from Cabernet Franc and Pinot Noir worked best.

The approach should work against strep strains that cause pneumonia, too, Koo says. His ultimate goal is a cavity-preventing rinse, but much more research is required — and Koo warns not to swish with wine in the meantime. It's too acidic.

"You'll wind up with stained teeth and also erosion from the acidity," he cautions. Source: MSNBC.com



STAYING FIT AFTER PULMONARY REHAB

A mighty challenge

A short rehab program that provides guidance for behavioral change holds many immediate benefits for COPD patients. But once the program ends, too few people maintain their new health habits.

People with chronic obstructive pulmonary disease (COPD), which involves emphysema and chronic bronchitis, suffer from breathlessness and have problems carrying out normal activities. Their respiratory (breathing) muscles are often weak, as are their arm and leg muscles—the result of infrequent activity.

Pulmonary rehabilitation is a program designed to strengthen these muscles and control other symptoms of COPD, thereby improving the person's health and quality of life. The program, which typically lasts 8 weeks, also offers information on COPD, instructions for physical and respiratory care, and psychosocial support.

Successful pulmonary rehabilitation requires that people make—and maintain—changes in exercise, medications and oxygen, breath retraining, and other aspects of lifestyle.

Most graduates of pulmonary rehab reap immediate benefits. But over the next 1 to 2 years they gradually abandon the healthful habits they adopted during the program, such as stopping smoking or losing weight.

Telephone-based reinforcement

A research team evaluated a phone-based maintenance program for 172 people with chronic lung disease who had just completed a pulmonary rehabilitation program. Some study subjects were randomly assigned to a 12-month course of weekly telephone calls made by a clinical staff member plus monthly in-person reinforcement sessions. Others received “standard care.”

Participants in standard care went back to their primary care provider with a letter outlining the recommended home rehab program. Also, standard care members were invited to attend monthly “alumni” group meetings.

As for the telephone group, a clinical staff member would briefly interview each individual about issues of compliance with the home care plan. Exercise training, oxygen use, and medical visits were among the issues investigated.

The telephone group's monthly in-person reinforcement sessions with a staff member were similar to the original rehab sessions. They included an information review and a re-evaluation of each participant's home treatment program. The sessions included 90 minutes of supervised exercise, 60 minutes of topic review, and 30 minutes of socializing.

The researchers measured outcomes by testing the lung function and exercise capacity of participants in both groups and by assessing the degree of breathlessness, depression, quality of life, and overall health. The patients also rated their own health. All measures were obtained before and after the pulmonary rehab program and then 6, 12, and 24 months later.

Phone group did better . . . at first

During the 12 months of the maintenance program, the telephone group demonstrated significantly better exercise capacity and overall health ratings than the standard care group.

But during the next 12 months—after the maintenance program had ended—there was a decline in lung function, exercise performance, symptom ratings, and quality of life in both groups. By the end of 24 months, all the participants had returned to levels that were just slightly higher than their pre-pulmonary rehabilitation measures.

The difficulties of maintenance

It's particularly difficult for people with COPD to maintain new behaviors, because they are generally among the older population and because of the progressive nature of COPD. Periodic flare-ups derail exercise programs.

Nevertheless, COPD patients have a lot to gain from making a special effort to overcome obstacles and stick with the behavioral changes that can improve their health and quality of life. Source: Am Journal Resp & Crit Care Med



EXERCISE CAN HELP YOU MOVE ON

Chronic obstructive pulmonary disease won't go away. But people with this breathing disorder can greatly improve their activity levels and overall well-being. Studies show that exercise is key.

Chronic obstructive pulmonary disease (COPD) is the source of tremendous disability caused by progressively worsening breathing problems. It is the fourth leading cause of death among Americans. The primary cause of COPD is cigarette smoking. If smokers with the disease quit, their remaining breathing capacity will decline much more slowly—at a normal, age-related rate.

A person with COPD copes with emphysema or chronic bronchitis, and often with both conditions. In emphysema some of the lungs' air sacs have been damaged or destroyed. Moreover, the lungs are less elastic and can't contract forcefully enough to expel all the stale air, heavy with carbon dioxide. As a result, there's less room in the lungs for fresh oxygen-rich air.

Chronic bronchitis affects mainly the small airways that branch into the lungs. They become thickened and their mucus production increases so that air can't pass through them as freely as it used to.

Pulmonary rehab to the rescue

People with COPD may cough a lot and frequently develop respiratory tract infections. They often become short of breath with the slightest exertion. In time, they may not be able to carry out simple daily activities without some kind of aid, such as a portable supplier of oxygen. In addition to the shortness of breath, fatigue is another common problem. That's hardly surprising when you consider that, for someone with COPD, breathing itself is hard work.

As a result, people with COPD often gradually cut back on physical activity. And, the more inactive people become, the less activity they're able to perform.

For this reason, doctors now recommend pulmonary rehabilitation to people with COPD. Goals of the program are to reduce symptoms, improve disability, increase participation in physical and social activities, and foster a sense of independence. Although patient and family education and psychological aids, such as counseling, play a part, the single most important element of the rehabilitation is exercise training.

The magic of exercise

While exercise can't restore lost lung function, it can go far toward maximizing what remains and thereby reduce breathing difficulty. It may also improve mental functioning in some individuals.

For the most part, pulmonary rehabilitation programs have focused on aerobic exercise, which requires an increased intake of oxygen. Also called endurance training, it aims to make the heart and lungs more efficient so that a person is better able to tolerate a given level of activity. Common examples of endurance training are walking on a treadmill or riding a stationary bicycle.

But endurance training doesn't combat the generalized muscle weakness common among people with COPD. That requires strength training in which the person uses a weight machine or lifts weights to build up various muscle groups.

A recent study explored whether strength training would provide any benefits beyond those of endurance training for people with COPD.

Either is good, both are better

The study divided 72 people with COPD into 3 exercise groups: The first group carried out a strength-training regimen, the second did endurance training, and the third did both. After 12 weeks, the participants were assessed for changes in both breathing capacity and quality of life.

Not surprisingly, strength training proved better for improving the muscle strength needed, for instance, for walking. Endurance training was superior for improving a person's overall breathing capacity and tolerance for daily activities. But the combination of the 2 approaches proved superior to either alone; this group improved both muscle strength and exercise tolerance. All 3 groups improved breathing capacity, and the training tended to lessen fatigue and negative emotions.

An ongoing program

When a formal rehabilitation program ends, exercise must be continued or its benefits quickly disappear. Many people with COPD also need to take medication for the rest of their lives. During flare-ups they need increased doses and even additional drugs. Pulmonary rehabilitation and continued exercise may help reduce the need for extra medication.

Source: AFP & Am Journ Resp & Crit Care Med



PULMONARY REHAB FOR COPD

Live life to its fullest

For someone with chronic lung disease, pulmonary rehabilitation offers an opportunity to reach—and keep—the best possible level of functioning and independence.

Rehabilitation programs are designed to help people who are recovering from an illness or injury to regain as much function as possible.

Most individuals who are referred for pulmonary rehabilitation have chronic obstructive pulmonary disease (COPD), a group of conditions that involve the lungs and airways leading to the lungs, including chronic bronchitis and emphysema. However, individuals with other types of lung disease may also profit from rehab.

A program for body and mind

While the lungs may be the primary target for pulmonary rehab, respiratory diseases usually cause problems in other parts of the body as well, such as the heart and the muscles—particularly muscles in the arms and legs. In addition, the person's nutrition may suffer, and psychological or social problems may be associated with the illness.

A pulmonary rehabilitation program can help relieve symptoms and improve general functioning and participation in life activities. People in these programs undergo exercise training and receive nutritional guidance. They also learn self-

management skills and get psychosocial support.

This may sound like a tall order, but a number of healthcare professionals work together to make it all happen. In most successful pulmonary programs, the rehab team includes a respiratory or physical therapist, a dietitian, a social worker or psychologist, a nurse, and a doctor.

Pulmonary rehabilitation may take place in an inpatient setting (generally when people are recuperating following a hospital stay), an outpatient setting, or at home. Such programs tend to last 8 to 12 weeks.

Exercise training: The root of all pulmonary rehab

Shortness of breath, with or without fatigue, is what limits the ability of most people with COPD to engage in exercise. Other physical problems may contribute to exercise intolerance as well—some linked with the respiratory system, some not. That's where exercise training comes in.

Exercise training is widely considered the foundation of pulmonary rehab. It's ideal for people with COPD who suffer from a decreased endurance level, shortness of breath when exercising, fatigue, or other problems that restrict their daily activity.

Exercise training programs have been shown to be the best way to improve muscle function in people with COPD. Ideally, the person should exercise at least 3 times a week. The best results have been seen in people who participate in programs that have at least 20 sessions. A combination of endurance and strength training usually works best. Although much pulmonary rehab emphasizes strength training for the legs, increasing arm strength is critical for many activities of daily living.

Shortness of breath, the hallmark of COPD, is frightening. It can make a person anxious or fearful, feelings that may lead to depression or other psychological disturbances. Pulmonary rehab can help a person manage the physical problem and overcome the negative feelings associated with it.

Weight control is part of the program

People with moderate to severe COPD are often underweight, and it's not uncommon for them to have a loss of muscle tissue due to disease or because they don't use the muscle (called muscle wasting). The loss of body mass and muscle tone can significantly reduce quality of life.

A high-calorie diet can help restore weight and compensate for the increased energy expenditure that COPD requires. It appears that exercise training is also needed for adequate weight gain.

On the other side of the coin are people with COPD who are severely overweight (obese). Obesity carries its own set of problems when it comes to breathing and exercise tolerance. Pulmonary rehabilitation provides an opportunity to learn about proper nutrition and healthful meal planning.

Pulmonary rehab is a key part of the COPD care plan. It helps people learn important self-management techniques to improve their quality of life.

Source: AJRCCM & Merck Manual

WHY YOU GAIN WEIGHT

Learn how to curb an out-of-control appetite

It seems simple: You eat when you're hungry and stop when you're full. But appetite, as opposed to hunger—and its effect on weight—turns out to be a good deal more complicated.

That's because, unlike hunger, appetite is affected by much more than your body's basic need for fuel. For starters, hormones, metabolism, factors in your stomach and intestines, nerve signals and the sight, smell and taste of appealing foods all play a role in reaching satiety. Then there's the influence of non-physiological factors like emotions, habits and sheer boredom, says Kathleen Melanson, Ph.D., a researcher at the University of Rhode Island. As most of us know, it's all too easy to reach for a snack when you aren't really hungry and don't need the calories. Psychologists call this hedonic appetite: "It's when you eat for pleasure or for medicating yourself when you're stressed," says Mary Boggiano, Ph.D., R.D., a psychologist at the University of Alabama at Birmingham.

Luckily, scientists have come up with a multitude of ways to curb an out-of-control appetite—and achieve or maintain a healthy weight. Try these tactics to keep hunger at bay:

Strive for calm.

"Stress can be a trigger for overeating or eating things you normally wouldn't eat," says Debra A. Zellner, Ph.D., professor of psychology at Montclair State University in Upper Montclair, NJ. When the women in one of her studies were presented with a tension-triggering task, they were more likely to chow down on fattening M&Ms, passing up healthier choices like grapes and nuts. To help you avoid such snacking, try yoga, meditation and other stress-management practices to keep your cool.

Favor foods that fill you up.

Foods that are high in water and low in fat (fruits, vegetables, lean meat and low-fat dairy) provide fewer calories per bite, and help to control your hunger—which may make it easier to control your appetite, too. "By adding water-rich foods like vegetables and beans to your favorite dishes, you get more satisfying portions," says Barbara J. Rolls, Ph.D., professor of nutritional sciences at Penn State University and author of *The Volumetrics Eating Plan: Techniques and Recipes for Feeling Full on Fewer Calories*.

In fact, Penn State researchers recently found that diets that focus on foods that are low in calorie density can promote weight loss while controlling hunger. Women who added water-rich foods to a low-fat diet lost more weight during the first six months of the study than those who followed a low-fat diet alone—on average, 19 pounds versus 14 pounds.

So look for ways to fill up without adding calories. One good method: eating high-fiber foods such as fruits and vegetables as well as whole grains and legumes.

Sip soup.

In another recent study, Penn State researchers showed that having a bowl of low-calorie soup before a meal slashed the amount of food and calories consumed at the meal by 20 percent. Pick a broth-based soup containing no more than 100 to 150

calories per serving.

Don't starve yourself.

It's why most diets typically don't work. "When you restrict calories too severely, as in crash diets, the brain's reward and satiety system changes," says Boggiano.

"Signaling of dopamine and endorphins—the same neurotransmitters involved in drug addiction—becomes more sensitized. Along with a decrease in serotonin (the neurotransmitter that makes you feel full and controls mood), this increases your appetite for yummy foods and may actually train your brain to crave high-calorie foods to feel better."

Get sweaty.

Research has shown that moderately intense exercise (65 to 75 percent of maximum heart rate) temporarily curbs hunger. Next time you're feeling hungry and it's way before chow time, go for a brisk walk or a bike ride.

Eat slowly.

Research from the University of Rhode Island confirms the wisdom of this old advice. Investigators asked 30 women to eat two pasta meals, one quickly and one slowly. Both times they were told to eat until they were comfortably satiated. When eating quickly, they finished the meal in less than 10 minutes. To eat slowly, they were instructed to chew each bite 15 to 20 times and to put down their silverware between mouthfuls.

The result:

"Women consumed fewer calories when eating the same meal slowly as compared to eating quickly," says Melanson, the study's lead investigator. And they rated themselves as less hungry and more satisfied after the slow-paced lunch. "One possible explanation is that it may take time for satiety signals to be communicated from the gastrointestinal system to the brain," Melanson explains.

Get your Zzzs.

Research from the University of Chicago shows that skimping on sleep sets off a cascade of hormonal changes that can boost your appetite, leading to extra weight and even diabetes. Sleep deprivation raises levels of the appetite-stimulating hormone ghrelin and inhibits the release of the hormone leptin, which signals the brain when you've had enough to eat.

A chronic sleep debt may make losing weight more difficult," says study author Eve Van Cauter, Ph.D., professor of medicine at the University of Chicago. Aim for seven or eight hours of shut-eye each night.

Consider medication.

If a supersize appetite is sabotaging your efforts to slim down, talk to your doctor about suppressing it with medication. In general, you are a candidate for a weight-loss drug if you have either a BMI (body mass index) above 30 or one that's greater than 27 along with health issues such as diabetes, high blood pressure or high cholesterol.

Louis J. Aronne, M.D., clinical professor of medicine at the Weill Medical College at Cornell University in New

York City, says there is a role for weight-loss drugs. But, he adds, "keep in mind that there is no one magic bullet for weight loss. In fact, it's going to take several different drugs (as we have for treating cholesterol and hypertension), along with lifestyle changes, to tackle the obesity epidemic."

All medications (both OTC and prescription) have side effects that must be carefully considered. Discuss the risks and potential benefits of all weight-loss medication with your doctor, and monitor your health carefully if you take them.

Source: Medizine, Inc.



DON'T CLEAR THE TABLE!

Wish you could control yourself better when that bowl of candy or pile of buffalo wings presents itself? Here's a trick to try.

Leave the evidence. Whether it's the candy wrappers on your desk, the wing bones on your dinner plate, or the empty cookie box on your kitchen counter, seeing the proof of your indulgence can help curb overeating.

Seeing Is Believing

In a study, people who went to a sports bar could eat chicken wings free of charge and to their hearts' (and stomachs') content. Servers cleared away the bones at some tables but let the bone plates pile up at others. No surprise: People ate less when evidence of their feast remained front and center.

4 More Sensible Strategies

A few other ways to stop yourself from eating more than you should:

Eat a bit of healthy fat before a meal.

Eat three meals a day, plus several healthy snacks, so you're never ravenously hungry.

Size up -- accurately -- what's on your plate.

Be smart about artificial sweeteners. (In some cases, they may actually trigger overeating.)

Using smaller 9-inch plates for meals can make your

RealAge 3.1 years younger.

Source: www.Realage.com



MICROWAVE SPLIT PEA SOUP

Cooks.com

1 or 2 slices ham, 1/4 inch thick

1 lb. split peas, washed & drained

1/2 lb. salt pork

1/4 c. celery, chopped

1 med. carrot, scrubbed & sliced thin

1 sm. onion, chopped

1/4 tsp. pepper

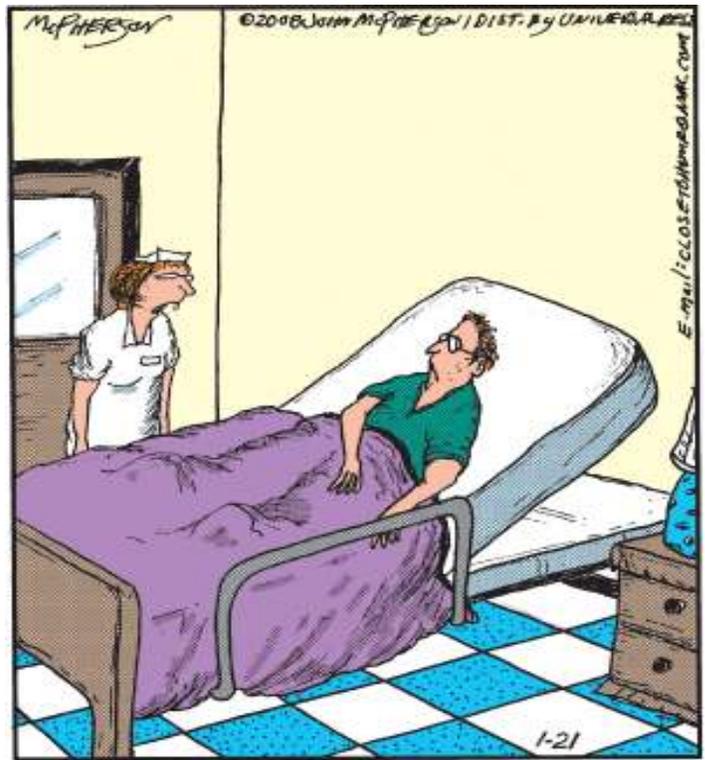
6 to 8 c. hot water

Combine all ingredients except ham in a deep casserole, at least 3 quart size. Microwave on high for 45 minutes, stirring at least 2 or 3 times during cooking. Add hot water if necessary, during cooking. Chop ham and stir into soup, cook 3 minutes longer.

Let set 5 minutes and serve with croutons if desired.

Add salt if desired after cooking.

Information in this newsletter is for educational purposes only. Always consult with your doctor first about your specific condition, treatment options and other health concerns you may have.



"Unfortunately, your insurance only allows for treatment by doctors who scored 68 or less on their medical boards."

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