

# EFFORTS



*Emphysema Foundation For Our Right To Survive*

Emphysema Takes Your Breath Away

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## **AIR POLLUTION MORE HARMFUL TO OLDER WOMEN**

A recent study from the University of Washington showed that breathing common polluted air in urban areas is more dangerous to older women. Researchers studied the data of 65,893 postmenopausal women between 50 and 79 years of age without previous cardiovascular (CV) disease in 36 US metropolitan areas from 1994 to 1998. Exposure to air pollutants was assessed using air monitors located closest to each woman's residence.

By study's end, 1816 women had one or more fatal or nonfatal CV events, including death from coronary heart or cerebrovascular disease, coronary revascularization, myocardial infarction (MI), or stroke. The average exposure of the women was 13 millionths of a gram of fine particulates of pollution per cubic meter of air; each increase of 10 millionths was associated with a 24% increase in the risk of a CV event and a 76% increase in the risk of death from CV disease.

Women are traditionally more susceptible to CV disease by virtue of their biological variations from men. It is believed that the particulates travel deep into the lungs to spark inflammation that can lead to MIs and strokes. The particles come from burning fuel in cars, factories, and power plants and are usually seen collectively as urban haze, or smog. The results of the study were published in the February 1, 2007, issue of the *New England Journal of Medicine*.



## **'BEWARE OF STORMS' - WEATHER CHANGES MAY CAUSE COLLAPSED LUNG**

New research suggests that changes in atmospheric pressure, which often occur during storms, may be related to idiopathic spontaneous pneumothorax (ISP) or collapsed lung. During a 4-year period, French and Italian researchers studied the relationship between ISP occurrence and meteorologic conditions in Bologna, Italy. Atmospheric pressure and ambient temperature were obtained for each day of the study period, and researchers defined ISP clusters as the hospitalization of at least two people with pneumothorax within 3 days of one another. By the end of the study period, there were 294 ISP episodes, 84% of which occurred in 76 clusters. Results showed a significant association between clusters and wider differences in atmospheric pressure. Researchers also reported a significant relationship between

pneumothorax and storms. This study appears in the June issue of *CHEST*, the peer-reviewed journal of the American College of Chest Physicians.



## **BREATHING FOR BETTER LUNG HEALTH**

While working to find novel ways to treat the life-threatening disease of cystic fibrosis, researchers at the University of North Carolina have discovered that the rhythmic motion of the lungs during normal breathing is a critical regulator of the clearance of bacteria and other noxious materials. Their research, funded by the Cystic Fibrosis Foundation and the National Institute of Health, is published in the latest issue of *The Journal of Physiology*.

Their findings have important implications in the understanding and treatment of cystic fibrosis (CF), the most common fatal genetic disease in the United States (30,000 sufferers) and the UK (7,500 sufferers). As a result of CF, the body produces abnormally thick, sticky mucus that clogs the lungs, leading to difficulty in breathing and chronic, life-threatening lung infections.

Dr. Brian Button and colleagues at the University of North Carolina's Cystic Fibrosis Research and Treatment Center found that the rhythmic motion of the lung during normal breathing is important in establishing the rate of mucus clearance and can help the lung in responding to changes in lung environment, such as during a lung infection.

More importantly, in CF, they found that rhythmic motion of the lung can result in re-hydration of the airways and acceleration of mucus clearance, thus promoting lung health in CF patients. The researchers speculate that this may explain the preservation of mucus clearance in young CF patients prior to the onset of chronic infections.

The UNC researchers also suggest that these studies provide an understanding of the mechanism underlying the observed beneficial effects of physical and deep-breathing exercise in CF patients. "We believe that knowledge gained in these studies will be useful in developing novel therapeutic regimens to increase mucus clearance in the lungs of CF patients", said Dr. Button.

Source: EurekAlert



## **CHRONIC COUGHING COULD BE SERIOUS**

*If you've endured a nagging cough for a few weeks, it may be time to see your doctor.*

A cough that's continued for more than three weeks may be a sign of allergies, asthma or chronic bronchitis, according to Dr Henry Milgrom, an allergist at the American National Jewish Medical and Research Center in Denver.

Many people let a persistent cough go untreated for too long. If a cough doesn't go away, you should see a doctor to learn if it is symptomatic of something more serious and treatable, Milgrom says in a prepared statement. The three stages of the cough

He explains that coughs are defined in three stages: acute, sub-acute and chronic.

An acute cough lasts less than three weeks and, if you feel fine otherwise, usually doesn't require a visit to your doctor. However, if fever, discomfort or generalised malaise accompanies your cough or if your cough is keeping you awake at night, by all means see a doctor, Milgrom says.

A cough that persists for more than three weeks may be an indication of something more serious. A sub-acute cough, lasting three to eight weeks, may be a sign of sinusitis, viral or bacterial infection, allergies or mild asthma.

A symptom of many conditions

A chronic cough, lasting longer than six weeks, may be a symptom of gastroesophageal reflux, chronic bronchitis, undiagnosed asthma or chronic obstructive pulmonary disease (COPD).

Chronic bronchitis and COPD are frequently accompanied by mucus, whereas some other illnesses associated with chronic cough are not, Milgrom says.

Source: HealthDayNews



## **ONTARIO—BAD AIR WARNINGS INCREASE; MORE SMOG ADVISORIES SO FAR THIS YEAR**

Now that the warm weather is here, people are packing their asthma puffers with their bathing suits for a day at the beach as number of smog warnings increase. "We have had more advisories this year than the past," said John Steele, spokesman for the Ontario Ministry of the Environment.

Shortly after 11 a.m. on Tuesday the Ministry lifted the heavy smog advisory that had been expanded to include Chatham-Kent due to high levels of polluted air traveling through southwestern Ontario from the United States. "When we get warmer weather like we have in the last few days, it is usually indicative of warm air coming up from the States," said Steele. As the warm air travels across Ontario, Steele said the air pollution becomes "home grown," meaning pollutants from cars and industry are added to the smog to magnify the levels.

### **How bad was the air during the past week?**

Ask someone who has asthma. Marlene Kuri, a registered nurse, considers herself a "very well-controlled asthmatic," who sticks to a strict treatment plan which includes regular medication, a healthy lifestyle and avoiding certain activities that trigger shortness of breath.

Even that wasn't enough. "I felt very tight and my breathing was heavy because of the smog," said Kuri, an advanced practice and clinical education leader at the

Chatham-Kent Health Alliance mental health addictions program. "Smog can bring any symptoms under control to a grand halt." For the first time in perhaps eight months, she actually had to use a "rescue inhaler. "Normally, I never take it."

Maple City Retirement Residence health-care aid Sue Dauphin has also noticed a difference in her breathing. "It seems like when the humidity is up, it is harder to breath, especially with the (pollution from the) ethanol plant here in town," said Dauphin. A smoker of 30 years, Dauphin's respiratory problems have escalated with this month's humidity to the point that she just stays indoors. Steele said it is too early to predict whether 2007 is going to be a record year for smog levels and advisory warnings. He did say that the smog season will continue until the end of September.

Chris Haromy, a respiratory therapist for the Ontario Lung Association, said the organization receives calls daily from local residents complaining about breathing problems due to weather conditions. "This is the time of year we always get these issues," said Haromy. "We get (calls) on a daily basis either for asthma or for COPD, a smoking-related lung disease."

Although the advisory has been lifted for Chatham-Kent, the ministry advises people with respiratory problems to remain indoors on hot, humid days and to watch the Ministry of the Environment's website for smog advisory warnings at [www.ene.gov.on.ca](http://www.ene.gov.on.ca).



## **APPEALS COURT DENIES EPA ATTEMPT TO WEAKEN AIR QUALITY, USA**

A panel of federal judges denied appeals by the U.S. Environmental Protection Agency and industry to overturn the same court's December, 2006 ruling that struck down the agency's rule attempting to weaken protections against harmful smog-forming pollution.

Ozone is associated with asthma attacks, coughing, wheezing, and other respiratory illness. Higher smog levels in a region are frequently accompanied by increased hospitalization and emergency room visits for respiratory disorders. Hundreds of counties across the country currently have unhealthy levels of smog, which limits outdoor activities, increases hospitalizations, and puts millions of Americans at risk for respiratory problems.

The decision reaffirms that EPA violated the Clean Air Act by relaxing limits on ozone, or smog pollution, from large power plants, factories and other industrial sources.

The U.S. Court of Appeals for the District of Columbia denied the EPA and industry petitions for rehearing, and actually clarified in even stronger terms that weakening air protections is illegal under federal law. The Court characterized the industry's desired readings of the law as a "glaring loophole" that nothing suggests Congress intended.

Significantly, recognizing the harm from EPA's delay, laxity and lawlessness, the Court also "urged" EPA to "act promptly in promulgating a revised rule that effectuates the statutory mandate by implementing the eight-hour [ozone] standard, which was deemed necessary to protect the public health a decade ago."

Earthjustice successfully represented a group of public health and environmental organizations -- the American Lung Association, Environmental Defense, the Natural Resources Defense Council and the Sierra Club - that challenged the EPA rule and then subsequently defended the Court's December decision that overturned the rule. Also challenging the EPA rules were the Clean Air Task Force (on behalf of the Conservation Law Foundation and Southern Alliance for Clean Energy), Louisiana Environmental Network, South Coast Air Quality Management District, and a coalition of states including Massachusetts, Delaware, Maine, New York, Pennsylvania, and the District of Columbia.

"This decision reaffirms that EPA must follow the Clean Air Act and limit this harmful pollution," said Earthjustice attorney David Baron. "Health experts agree that we need stronger protections, not weaker limits on smog pollution."

EPA and industry groups had tried to overturn the decision by seeking rehearing in March. The environmental and public health groups, along with the states, argued that EPA's original rule and requested appeal made no sense, because the agency's unlawfully weak ozone rule came after EPA had found that the previous ozone standard was too weak to protect public health.

"Hundreds of counties across the country currently have dangerous levels of ozone smog. We've already seen high levels this spring," said Janice Nolen, Assistant Vice President of the American Lung Association. "Ozone triggers asthma attacks, sends children to hospitals and emergency rooms, and even increases the risk of early death. Today's court decision puts us closer to having air that does not make people sick."

"EPA should heed the Court's pointed warning to act promptly to adopt protective rules that will deliver long overdue clean air to the American people," said NRDC attorney John Walke. "EPA foot-dragging and law-breaking have a daily toll on people forced to breathe smog levels that doctors and scientists tell us is widely unhealthy."

The 1990 Clean Air Act required stronger anti-smog measures in cities violating ozone standards, including limits on pollution from new and expanded factories, requirements for annual cuts in smog-forming emissions, and caps on truck and car exhaust. In 1997, EPA found that the then-existing "1-hour" ozone health standard wasn't strong enough to protect health, and adopted a new "8-hour" standard to provide greater protection. Paradoxically, the agency in 2004 adopted rules that weakened pollution control requirements for areas violating both the old and the new standard. That decision triggered the court challenge leading to that rule being struck down in December, 2006, and the EPA-industry appeals being rebuffed.

"The Court has rejected EPA's attempt to gut the Clean Air Act and undermine public health standards," said Vickie Patton, an attorney with Environmental Defense. "Now it's important that there is clarity for the states to submit their plans to limit ozone pollution. It's time to move forward with protecting health against smog pollution."

"EPA has a responsibility to protect our health and our environment from unhealthy, polluted air," said Marti Sinclair, chairperson for Sierra Club's Air Quality Committee. "Millions of Americans breathe air with unsafe ozone levels, and they deserve stronger, not weaker protection under the law."

Source: [www.lungusa.org](http://www.lungusa.org).



## **COPD RAISES RISK OF HARDENED ARTERIES**

New research reveals patients with chronic obstructive pulmonary disease have more arterial stiffness than those without COPD, which could help explain why these patients are at increased risk for heart disease. Researchers from the United Kingdom evaluated 75 patients with stable COPD who had varying degrees of airway obstruction. They also studied 42 smokers or ex-smokers who had no history of COPD or heart disease. COPD is a disease that is characterized by persistent obstruction of the airways caused by emphysema or chronic bronchitis. It is the fourth leading cause of death in the United States.

In the study, researchers found higher levels of inflammation markers in patients with COPD than in the control subjects. Previous studies have shown inflammation is involved in the hardening of the arteries. It has also been shown that inflammation is a factor in osteoporosis. Researchers in the current study found COPD patients with osteoporosis had the greatest arterial stiffness. Eighteen of the 75 COPD patients in the study had osteoporosis. Only two of the 45 control subjects had abnormal loss of bony tissue.

Dennis Shale, M.D., from Cardiff University, was quoted as saying, "Our findings indicate vascular changes predictive of cardiovascular disease occur and remain undetected in mild or early lung disease and may underlie the excess cardiovascular risk in COPD."

None of the patients in the study had any history of heart disease before the study. Dr. Shale, says, "The increased arterial stiffness in patients within each decade is similar to changes seen in type 1 diabetes mellitus and suggest that age-related vascular changes occur prematurely in COPD, as compared with disease-free individuals." However, researchers go on to say that, unlike in diabetes, the risk of premature cardiovascular disease in COPD is not appreciated.

SOURCE: *Am. Journal of Resp. and Critical Care Medicine*



## **EMERGING THERAPIES FOR AIRWAY INFLAMMATION HOLD PROMISE *Applied Data Research Analyzes the Impact of New Treatments***

The inhaled upper respiratory market represents one of the largest categories of drug spending, with continuing growth due to increasing incidence and diagnosis of airway inflammation conditions such as asthma and chronic obstructive pulmonary disease. A number of factors – factors that include new and emerging drug classes, improved delivery technology, and multi-therapy drug products - are converging to change the dynamics of this therapeutic sector.

New drug classes that focus on molecular targets are emerging as important tools for practitioners. Interest is growing

among practitioners and their patients for treatments that are capable of delivering two drugs that can act in concert to mitigate the effects of airway inflammation better than a single drug. These combination products pair drugs with different indications to maximize patient relief.

As the number of asthmatics, COPD, and allergy patients continues to grow, the existing upper respiratory tract market franchise will continue to provide unit growth and margins that will fund ongoing research into technology improvements focused on systemic delivery of proteins and peptides as well as novel small molecule therapeutics.

These findings are examined in a new and comprehensive report from Applied Data Research. The report, *Asthma, COPD and Allergic Rhinitis: Emerging Therapeutics of Airway Inflammation Diseases*, concludes that new and emerging drug combination products with improved efficacy will shift the balance among available treatments and create opportunities for market participants and choices for caregivers and their patients.

Source: Applied Data Research



## **PREMATURE VASCULAR AND BONE CHANGES OCCUR IN COPD PATIENTS**

Researchers in the United Kingdom have found that patients with COPD, or chronic obstructive pulmonary disease, have greater arterial stiffness. The researchers also found that those COPD patients with osteoporosis, a common complication of the respiratory disease, had even greater arterial stiffness. These premature signs of aging may explain why COPD patients are at greater risk for cardiovascular disease.

Their research results appear in the second issue for June 2007 of the *American Journal of Respiratory and Critical Care Medicine*, published by the American Thoracic Society.

Dennis J. Shale, M.D., of the Department of Respiratory Medicine at Cardiff University in the United Kingdom, and eight associates studied 75 clinically stable COPD patients who had various levels of airway obstruction, and 42 smoker or ex-smoker control subjects who did not have cardiovascular disease or COPD.

All participants in the study underwent spirometry to determine lung function, had their aortic pulse wave velocity measured along with another indirect measurement of arterial stiffness, took bone mineral density tests of their spine and hips, and had their blood sampled for inflammatory mediators.

COPD, the fourth leading cause of death in the United States and the world, involves persistent obstruction of the airways caused by emphysema or chronic bronchitis. In most instances, both conditions result from years of smoking cigarettes.

Though the exact link between COPD and arterial stiffness was not identified by the researchers, they did find elevated levels of inflammation markers in those with COPD. Other researchers have demonstrated that inflammatory

processes are involved in arteriosclerosis, the cardiovascular disease commonly known as "hardening of the arteries."

There is also evidence that inflammation plays a role in osteoporosis. In this study, patients with osteoporosis had the greatest arterial stiffness.

"Increased arterial stiffness was present in patients with COPD over a wide range of severity of airway obstruction and was greatest in those with osteoporosis," said Dr. Shale. "Our findings indicate vascular changes predictive of cardiovascular disease occur and remain undetected in mild or early lung disease and may underlie the excess cardiovascular risk in COPD."

The researchers noted that age was an important factor influencing arterial stiffness, a problem that reflects the increasing rigidity of the aortic artery. The average age of the study cohort was 63.

"The increased arterial stiffness in patients within each decade is similar to changes seen in type I diabetes mellitus and suggest that age-related vascular changes occur prematurely in COPD, as compared with disease-free individuals," said Dr. Shale. "However, unlike diabetes mellitus, the risk of premature excess cardiovascular disease in COPD is not appreciated."

At the beginning of the study, none of the participants had a history of heart disease or possessed cardiovascular symptoms. Of the 75 COPD patients studied, 18 had osteoporosis, while among the controls, only two individuals suffered from abnormal loss of bony tissue. Also, those who had osteoporosis of the hip had a greater aortic pulse wave velocity than those without the hip problem.

In an editorial on the study in the same issue of the journal, Claus Vogelmeier, M.D., and Robert Bals, M.D., of Philipps-University, Marburg in Germany, said that the study provides "important new information" on the relationship of cardiovascular disease and COPD.

They noted that aortic pulse wave velocity—considered the most clinically relevant measure of arterial stiffness—has been shown to predict cardiovascular outcome in various populations. The authors also highlighted the study's correlation of pulse wave velocity and COPD severity as important.

"The more severe the flow limitation, the higher the pulse wave velocity values," wrote Drs. Vogelmeier and Bals. "Thus, COPD may induce arterial stiffness, which in turn may promote vascular remodeling, thickening of arterial walls and plaque formation. The process may start in the early stages of COPD and worsen with the decline of lung function."

The editorialists also commented on osteoporosis, which was the second focus of the study: "The authors found that bone mineral density was lower in patients with COPD than in control subjects. Among the patients with COPD, 32 percent had osteoporosis and this was not restricted to those with severe COPD."

Although the editorialists termed the relationship between COPD and osteoporosis in the study was not "novel," they noted that those patients with osteoporosis also had the greatest arterial stiffness values—a new finding.

They concluded that future research is necessary to uncover further relationships between this study's findings and

accelerated aging processes in COPD, which might then be avoided.

This news brief is based on an article published in the American Thoracic Society's peer-reviewed journal, the American Journal of Respiratory and Critical Care Medicine.

Founded in 1905, the American Thoracic Society is the world's leading medical association dedicated to advancing pulmonary, critical care and sleep medicine. The Society has more than 18,000 members who prevent and fight respiratory disease around the globe, through research, education, patient care and advocacy. Source: thoracic.org



## AMERICAN ASSOCIATION FOR RESPIRATORY CARE SEEKS CLARIFICATION ON BROVANA REIMBURSEMENT

AARC has contacted CMS to request clarification on their policies for the reimbursement of Brovana (arformoterol) in the home care setting.

Brovana, a new long-acting beta agonist (LABA), has recently been introduced, but has not yet been assigned a reimbursement code for home use. Therefore, availability of the medication to patients discharged from the hospital may be limited, interrupting the continuity of care and depriving patients of an efficacious medication. AARC has urged CMS to quickly provide clarification on the use of Brovana. "Given the current uncertainty, problems are arising concerning access to Brovana outside the hospital which poses a threat to the continuity of care for COPD patients and undermines appropriate management and control of their condition," said Sam Giordano in his letter to the Region D Medical Director.

The AARC asks for immediate clarification on the policy and then a swift evaluation and assignment of a J code for the medication. In the letter, AARC points out that Brovana is decreasing the frequency of treatment, as physicians quickly use Brovana as one of the front line treatments for patients with COPD.

AARC will be following this issue and will alert members when CMS has issued a response to our letter or a clarification on the home use of Brovana. Source: www.aarc.org



## AMERICANS WITH DISABILITIES IMPEDED BY OUTDATED POLICIES

Although the Americans with Disabilities Act (ADA) has helped increase awareness of barriers faced by people with disabilities, and advances in science and engineering have led to better assistive technologies that make it easier for

individuals to lead productive, independent lives, outdated regulations too often impede access to health care coverage and assistive devices for many who need them, says a new report by the Institute of Medicine.

The report calls on Congress and appropriate federal agencies to improve decision making about what and who Medicare and Medicaid will cover and to eliminate waiting periods for qualified individuals to receive Medicare coverage. The federal government should find ways to ease restrictions that prevent people from getting effective assistive services and technologies to help them live as independently as possible and participate in work and other activities outside the home.

"The number of Americans who have disabilities will grow significantly in the next 30 years as the baby boom generation enters late life. If one considers people who now are disabled, those likely to develop a future disability, and people who are or will be affected by the disabilities of family members or others close to them, it becomes clear that disability will eventually affect the lives of most Americans," said Alan M. Jette, director,

Health and Disability Research Institute, Boston University School of Public Health, Boston, and chair of the committee that wrote the report.



"Increasingly, scientific evidence reveals that disability results, in large part, from actions society and individuals take. The sobering reality, however, is that over the past two decades, far too little progress has been made in adopting major public policy and practice advances to reduce disability in America."

Currently, more than 40 million Americans - at least one in seven - have physical mobility, sensory, or other impairments or limitations. Since IOM's previous reports in 1991 and 1997 that highlighted disability as a pressing public health issue, there has been growing recognition that disability is not inherent in individuals, but rather is the result of interactions between people and their physical and social environments. Many aspects of the environment contribute to limitations associated with disability -- for example, inaccessible transportation systems and workplaces, restrictive health insurance policies, and telecommunications and computer technologies that do not consider people with vision, hearing, or other disabilities.

The ADA -- and other policies aimed at reducing barriers for people with disabilities -- has helped to increase recognition of environmental obstacles, but its implementation and enforcement have often been disappointing, the committee said. Ironically, even within health care facilities, people with disabilities encounter equipment and surroundings that are not designed to accommodate their needs -- for example, examination tables and

weight scales that are difficult for people in wheelchairs to use. Information materials for people with vision or hearing loss are frequently limited, as well.

The committee said it was encouraging to find that in older adults, the chances of having certain kinds of activity-limiting disabilities have declined during the last two decades. However, data for younger and middle-aged adults suggest an increasing risk for disability and for conditions that contribute to disability - notably, physical inactivity, diabetes, and obesity. These trends raise concerns that the next generation of people entering late life may experience more disability than the current population of seniors.

Steps needed to ensure that the growing population of American with disabilities is able to lead full lives and avoid lost productivity include the modification of Medicare's "in home use" requirement for durable medical equipment, for example, a wheelchair or scooter. Current regulations stipulate that equipment must be "appropriate for use in the home," which has been interpreted to mean a device should not be covered if it would be used only outside the home, such as an item for use in an office. Policies may also keep people from obtaining equipment that is safe and durable to use for getting around outside as well as inside the home. Other needed steps are the evaluation of new approaches for supplying assistive equipment, like renting or recycling used equipment, and rethinking narrow and outdated "medical necessity" rules that do not reflect the current emphasis on promoting independence and community integration for people with disabilities.

In addition, government at all levels should support continued research to evaluate and improve the methods used for determining fair payments for health services. These methods should not provide incentives for health plans to avoid people with disabilities, and they should encourage the coverage of care needed to manage chronic health conditions. Overall, policymakers should increase support for research on disability, which is seriously underfunded, considering the impact of disability on individuals, families, and communities.

To improve health care coverage for working-age people with disabling health conditions, Congress should eliminate the two-year waiting period for Medicare eligibility for those who are receiving Social Security Disability Insurance (SSDI). This waiting period is a serious hardship for individuals who have already qualified for disability insurance because they have a serious medical condition that precludes working. Officials also should test modifications in SSDI and other policies that would encourage people who are able to return to work to do so without losing their Medicare or Medicaid coverage, the report says. Regarding access to Medicaid for children with disabilities, Congress should extend Medicaid and other public health program coverage from age 18 through 21, to help young people with disabilities successfully transition from pediatric to adult health care and independent living.

The U.S. Department of Justice should continue to vigorously pursue and publicize settlements and litigation of violations in health care institutions and should issue guidelines

for health care professionals and institutions that describe expectations for compliance with the ADA. Compliance with federal accessibility standards and guidelines should be an explicit factor in the accreditation of hospitals and clinics.

Source: medicalnewstoday



### **HEALTH TIP: UNDERSTANDING EMPHYSEMA**

Emphysema occurs when the walls between the lungs' air sacs lose their ability to stretch and contract, causing the weakened sacs to break. Air becomes trapped in the sacs and the lungs' oxygen/carbon dioxide exchange is impaired. Since the sacs are no longer properly supported, airflow may be obstructed, says the American Lung Association.

Common symptoms of emphysema include shortness of breath, frequent cough and difficulty catching one's breath during exercise.

Smoking, the primary cause of emphysema, is strongly discouraged, the association says. The condition may also be caused by genetic abnormalities.

Treatments to help curb symptoms of emphysema include antibiotics to combat bacterial infections, steroids, exercises to strengthen breathing muscles, and bronchodilator drugs to help relax obstructed airways.

Source: HealthDay News



### **NEW DVD WILL HELP TRAIN HEALTH CARE WORKERS TO PROVIDE RESPIRATORY CARE DURING DISASTERS**

HHS' Agency for Healthcare Research and Quality today released a DVD titled "Cross Training Respiratory Extenders for Medical Emergencies (Project XTREME)," to train health care professionals who are not respiratory care specialists to provide basic respiratory care and ventilator management to adult patients in any mass casualty event. Among the possible emergencies when such auxiliary clinical help may be necessary are an influenza pandemic, a bioterrorist attack involving anthrax or other agents, or an outbreak of severe acute respiratory illnesses. Principal target groups for the training are physicians, physician assistants, and nurses.

"The DVD is not intended to train health care professionals to become respiratory therapists, but to expand our respiratory care capacity in the event of a major public health emergency," said AHRQ Director Carolyn M. Clancy, M.D. "I hope the DVD will get widespread use to ensure that we have adequate medical resources if confronted by a bioterrorist attack or other large-scale public health emergency."

The DVD includes six training modules with interactive quizzes to test viewers' knowledge. The modules cover infection control, respiratory care terms and definitions, manual ventilation (using hand-held bags), mechanical ventilation (using the two types of ventilators included in the Federal government's Strategic National Stockpile of medicines and medical supplies for emergencies), airway maintenance, and airway suctioning.

## SENIORS LOSING OUT ON HEALTH BENEFITS

Medicare can do more for seniors and the disabled than simply cover their doctor bills after they get sick. The health insurance program will cover an array of shots and screenings that can prevent illness.

But not enough beneficiaries are taking advantage of those services, says Health and Human Services Secretary Mike Leavitt. Leavitt was to kick off a campaign Friday designed to increase the number of people who seek free flu and pneumonia shots, a physical exam as they enter Medicare, and screenings for osteoporosis, diabetes and certain cancers.

Most of the screenings require beneficiaries to pay only 20 percent of the cost. "Because one chronic disease is often accompanied by complications, this effort will pay dividends for many years to come," Leavitt said.

Leavitt noted that Americans spend about \$3.8 billion for diabetes-related hospitalizations. Roughly two-thirds of that expense could have been avoided with appropriate primary care, but only about half of all Medicare beneficiaries report having their blood sugar tested in the past year. That particular test is free, and so are the supplies and training that beneficiaries get to help them manage diabetes.

In another example, the five-year survival rate for people with early detection of colorectal cancer exceeds 90 percent. Yet, only about 59 percent of beneficiaries say they've had a colonoscopy.

Medicare provides health insurance coverage to about 43 million seniors and the disabled. The first week of the campaign will focus on events in Rhode Island, Massachusetts, Maine and Connecticut. Source: diabetes.org



## STUDY SHOWS GENDER GAP IN HEALTH CARE

As debate intensifies over possible reforms for the United States' health care system, a new analysis finds a gender gap in American health care. Researchers examined results from three national surveys on health care use and costs. They found that women are more likely to go without health care than men, even when they have insurance.

The report states that 33 percent of insured women don't get the health care they need because they can't afford it, compared to 23 percent of insured men. Women were also around 10 percent more likely to struggle with medical bills.

Part of the discrepancy comes from the fact that women often have more medical needs, such as pregnancy-related care. They are also more likely than men to take prescription drugs. But women tend to have lower-paying and more part-time jobs, which often means they don't get the best insurance.

Researchers said that policy reform for U.S. health care should take these differences into account to ensure that comprehensive coverage does not require high out-of-pocket costs. Source: TurnTo23.com.



## COMPARING COPD TREATMENT- NEBULIZER, METERED DOSE INHALER, AND CONCOMITANT THERAPY

### Purpose

Patients using albuterol and ipratropium for treating chronic obstructive pulmonary disease (COPD) can use either nebulizers or metered dose inhalers. This study compared the 2 methods of delivering medication and the concomitant use of both nebulizer and inhaler, with respect to health-related quality of life, patient symptoms, and efficacy.

### Subjects and Methods

Patients over 50 years old with COPD were randomized into 3 groups: nebulizer, inhaler, or concomitant treatment. Quality of life was assessed using the St. George's Respiratory Questionnaire at baseline, and at 6 and 12 weeks. Other efficacy measurements at these time-points included pre-and post-dose forced expired volume in 1 second (FEV1). Symptom scores and peak flow measurements were recorded in patient diaries.

### Results

Of 140 patients enrolled, 126 completed at least one post-baseline assessment. At week 6, both groups using a nebulizer achieved statistically significant improvements from baseline in questionnaire symptoms, and the concomitant treatment group had clinically and statistically significant improvement in total questionnaire score. At week 12, the concomitant group still maintained significant improvement in symptom sub-scores. The 3 groups showed little change over time in peak flow or FEV1, with no significant difference among groups. Both groups using a nebulizer had significant improvement over time in diary symptom scores, although differences between groups were not significant.

### Conclusions

Patients using combined nebulizer therapy morning and night with mid-day inhaler use had the most statistically significant improvements in quality of life indices. This concomitant regimen provides the additional symptom relief offered by a nebulizer with the convenience of an inhaler when patients are away from home. Source: sciencedirect.com



## SHINING A LIGHT ON A DEADLY LUNG DISORDER

Recovering from a heart attack and fighting pneumonia, Frank Miller, a 67-year-old Vietnam veteran, was transferred from a VA hospital to the University of Kansas Medical Center in Kansas City, Kan., to be evaluated for surgery to repair his blocked arteries. Wheezing and coughing badly, he learned he had another deadly ailment that would require treatment first: chronic obstructive pulmonary disease. Mr. Miller, a retired long-haul trucker who had given up smoking more than a decade ago, is one of an estimated 24 million Americans with COPD -- half of whom remain undiagnosed, according to the National Institutes of Health's National Heart, Lung and Blood Institute. Along with a number of nonprofit groups and medical-specialty societies, the NHLBI is leading a new campaign to raise awareness of COPD. The aim is to encourage people over 45 who may be at risk to get a simple breathing test and talk to their

doctors about treatments that can slow or even reverse its course, including medications and lifestyle changes such as exercise and quitting smoking.

COPD is an umbrella term for lung diseases that inflame airways, obstruct breathing and trap bad air in the lungs, including emphysema and chronic bronchitis. It's hardly a new disease, but its prevalence has been rising steadily, while other major causes of death have been decreasing. The increase is due largely to the fact that people are living longer and developing the disease as they age. But it is also rising in younger people and women, who are experiencing the long-term ravages of smoking even years after they quit, as well as exposure to second-hand smoke and other pollutants.

Most Americans have never heard of COPD, surveys show, and many doctors don't follow the guidelines for testing and diagnosis. Physicians and patients alike may dismiss symptoms such as shortness of breath, fatigue and chronic coughing as a sign of aging, or attribute them to other diseases COPD is often linked to, including heart disease and lung cancer. Globally COPD is the fifth-largest cause of death; in the U.S. it is the fourth-ranked killer behind heart disease, cancer and stroke, and is projected to move to third place by 2020. The total annual cost is estimated at close to \$40 billion annually, including \$21 billion in direct medical costs.

### Risk of Exposures

Former smokers may believe they are out of the woods because they quit, but nearly half of COPD patients are former smokers rather than current smokers, according to Amy Pianalto, project director of the NHBLI's "Learn More, Breathe Better" awareness campaign ([www.learnaboutCOPD.org](http://www.learnaboutCOPD.org)), which is sponsoring radio and print ads and offers materials for both doctors and patients. Second-hand smoke, air pollution and workplace exposure to pollutants like chemicals, dust and fumes can also trigger the disease. An estimated 100,000 Americans also have a genetic disorder known as alpha-1 antitrypsin, or AAT, deficiency that makes them susceptible even without any kind of exposure. "There are 12 million people in this country who are coughing and can't breathe who don't know they have COPD," says Molly McGuire, administrator of the nonprofit COPD Foundation ([COPDFoundation.org](http://COPDFoundation.org)). "It has been a slow process getting everyone connected to resources."

The COPD Foundation, in partnership with the American Association of Respiratory Therapists, is sending a mobile testing unit to a number of cities across the country offering free spirometry, a lung-function test that measures the amount of air a person can breathe out and the time it takes to do so. Even though hand-held versions of the device can cost as little as \$500 to \$800, and it is considered the gold standard for an initial diagnosis of COPD, the COPD Foundation says that close to 40% of primary-care doctors don't have spirometers in their practice. Among those who do have the

devices, a third don't use them routinely, even though Medicare and most private insurers cover the use of spirometry when COPD is suspected.

"Though we'd like to believe everyone is following the standard of care and is up-to-date on the guidelines, there are millions of patients in rural areas and small towns where it is difficult for the general practitioners to keep up with everything," says Frank Quijano, a pulmonary and critical-care physician at the University of Kansas who treated Mr. Miller's COPD. There are several drugs commonly used to treat COPD, which though incurable can be prevented from worsening. Many drugs come in the form of puffers or inhalers; among the most commonly used are tiotropium (known by the brand name Spiriva), which dilates the bronchial tubes, and a combination of the steroid drugs fluticasone and salmeterol (known by the brand name Advair), which can also fight inflammation.

While a host of new treatments and drug dosages are being studied in large-scale trials, there has as yet been no major breakthrough. A study in the May issue of the *American Journal of Respiratory and Critical Care Medicine* found that a promising anti-inflammatory drug, infliximab, failed to improve symptoms of moderate to severe COPD. Moreover, because the conditions of COPD patients can often worsen dramatically, it has been difficult to conduct conclusive research. In one large study, known as the Towards a Revolution in COPD Health Trial, 40% or more of the subjects didn't continue to receive the assigned treatment throughout the study, because they either died, dropped out or sought other treatment. According to an American Lung Association survey, about half of COPD patients say their condition limits their ability to work, sleep, do household chores, and enjoy social and family activities, while

70% say it limits them in normal physical exertion. Mr. Miller, for example, has found it hard to exert himself, and his hospitalizations have forced him to miss out on a treasured pastime: riding his three-wheeled "trike" motorcycle with the Patriot Guard, a group that escorts military funerals.

### Need for Early Treatment

Though oxygen therapy and surgery to reduce the size of the lungs can help prolong the life of severely ill COPD patients, at present, half die within 10 years of diagnosis -- a toll experts say could be sharply reduced if patients are diagnosed and treated early. The National Committee for Quality Assurance, which accredits health plans, is pressuring plans to encourage doctors to conduct screening for COPD. And the Center for Medicare and Medicaid Services is evaluating whether it can cover rehabilitation services, according to Steve Phurrough, director of the coverage and analysis group.

For patients like Mr. Miller, who suffer from other diseases along with COPD, proper treatment can dramatically improve the quality of life. His doctors at the University of Kansas treated his lungs with inhaled breathing treatments and antibiotics. And rather than perform open heart surgery that would have required a ventilator that might have done more damage to the airways,



Marsha Cathcart/COPD Foundation

they performed angioplasty to open his blocked arteries. For now, the COPD is under control. Says Dr. Quijano, "He walked out of here ready to ride his motorcycle."

Source: Wall Street Journal



## **SINGULAIR APPROVED FOR EXERCISE-INDUCED ASTHMA**

The U.S. Food and Drug Administration has approved the Merck asthma and allergy drug Singulair (montelukast sodium) for people aged 15 and older who experience asthma symptoms during exercise, the company said Wednesday.

Symptoms of the condition, medically known as exercise-induced bronchoconstriction, include shortness of breath, coughing, wheezing and chest tightness.

In clinical testing involving 160 people, those who took a 10-milligram dose of Singulair two hours before exercise showed a significant reduction in symptoms compared with those who took a placebo, Merck said in a statement.

People who already take Singulair daily for other reasons, including chronic asthma, should never take an additional dose before exercise, the company warned. Side effects reported during clinical testing included headache, ear infection, sore throat and upper respiratory infection.

Singulair is already approved to treat asthma in people 1 year and older, and for seasonal allergy symptoms in adults and children 2 years and older.

Source: HealthDay News



## **STUDY SHOWS GENDER GAP IN HEALTH CARE**

As debate intensifies over possible reforms for the United States' health care system, a new analysis finds a gender gap in American health care. Researchers examined results from three national surveys on health care use and costs. They found that women are more likely to go without health care than men, even when they have insurance.

The report states that 33 percent of insured women don't get the health care they need because they can't afford it, compared to 23 percent of insured men. Women were also around 10 percent more likely to struggle with medical bills.

Part of the discrepancy comes from the fact that women often have more medical needs, such as pregnancy-related care. They are also more likely than men to take prescription drugs. But women tend to have lower-paying and more part-time jobs, which often means they don't get the best insurance.

Researchers said that policy reform for U.S. health care should take these differences into account to ensure that comprehensive coverage does not require high out-of-pocket costs.

Source: TurnTo23.com.



## **WORKERS WITH ROTATOR CUFF INJURIES BACK ON THE JOB AFTER FREE WEIGHT TRAINING**

Resistance training, some of it job-specific, was successful in getting 90 percent of workers with severe rotator cuff injuries back to work, the majority (75 percent) at their

previous job, after traditional physical therapy had failed to do so. Furthermore, all but one of the 42 employees in the study (98 percent) reported satisfaction with the resistance-training program and its outcome.

Dr. Jamie Stark described this and five related studies of workers suffering work-related rotator cuff and lumbar fusion injuries at Experimental Biology 2007, meeting in Washington, DC. His presentations are part of the scientific program of The American Physiological Society.

Participants in the rotator cuff study represent a class of "worse-case-scenarios" of work-related injuries. Rotator cuff injuries involve those muscles and tendons that stabilize the shoulder and can be caused by pulling the arm out of place, by falls and other accidents. All 42 of the employees had been through surgery to repair their torn muscles or ligaments. All had already gone through weeks of traditional rehabilitation and physical therapy. Even so, none had been judged capable of going back to work and thus were eligible for disability and workmen's compensation settlements.

This was just the patient population Dr. Stark, director of Research and Development at the Athletic and Therapeutic Institute in Chicago and his colleagues at the research division of the Institute wanted. Nothing had worked for these patients, and the researchers figured that what would work for them also would work for employees with less severe injuries.

The injured employees attended the Institute program four hours a day, five days a week, on average for six weeks. Their daily training began with warm up, stretching, and core exercises for balance and proper biomechanics, then moved to free weight resistance training of the upper and lower body. Unlike traditional physical therapy programs after injuries, this program was a modified version of what professional and collegiate athletes do using free weights. On the third day of the week, the exercises involved less weight than the previous two days but were much more dynamic, addressing specific injury and biomechanical patterns related to the workers' previous jobs. A drywaller, for example, would work muscles used in lifting large sheets of drywall overhead and in place. During the last two days of each week, the amount of weight used during free weight lifting was heavier than that of the first two days of the week.

At the end of the six weeks training, the workers were tested on physical function (a four hour protocol based on U.S. Department of Labor classifications of different types of work, re specific amounts of weight lifted for specific percentages of time). Ninety-six percent of patients met or exceeded the physical function levels of their previous job, and 90 percent went back to work, most at their previous job. Almost all employees were satisfied with the program, and so were employers.

Dr. Stark says "We are at a new era in which we can develop standardized exercise prescriptions that produce desired, achievable functional goals." He believes doing that will meet the goals of all key stakeholders. Patients want to regain full function as soon as possible and be satisfied with their physical and work outcomes. Employers want workers to come back to

work as soon as possible, as fully as possible, at a cost that prevents escalation in insurance premiums.

And payors, whether insurance companies or self-insured employers, are interested in the cost benefit between getting a worker back to the job at a functioning level (costs of medical, physical therapy, and other rehabilitation programs such as those these workers went through) and a worker's not being able to go back to work at all or at his or her previous level (costs of long-term disability settlement, workman's compensation). "To date," says Dr. Stark, "this model of rehabilitation using intense free weight training has proved objective, measurable, and successful in patient satisfaction, return to work, and cost benefit."

The researchers now hope to test the model in a larger prospective trial of workers at varying levels of injury in order to demonstrate increased outcome efficacy with a standardized prescription and concurrently measure cost-benefit to the worker's compensation system.

Source: medicalnewstoday



## **WHEN DETERMINING WHO'S FAT, IS BMI BUNK?**

### ***Study deals another blow to body mass index measurement***

Are you fat? The answer may depend on which test you take. If you're going by your body mass index, or BMI, a measure that factors in your weight and height, you are considered overweight if that score is 25 to 29, and obese if it's 30 or higher. But a surprising new study finds that some people with a BMI pushing 28 actually have little body fat — and some folks with a BMI as low as 24 have too much.

The results question the validity of BMI, the most common measure for determining who needs to shed some pounds, says study author James Pivarnik, a professor of kinesiology and epidemiology at Michigan State University in East Lansing. "If you're going to classify a person as overweight by BMI, depending on who you're working with, that may not be the best way to do it," he says.

While prior research has found that BMI isn't always an accurate indicator of fatness in athletes, who may be more muscle than fat, the new study is one of the first to show that BMI may not necessarily work for the general population either. Other experts say they've seen this firsthand with clients, and that clearly BMI isn't the best test for everyone. "I don't think it's accurate enough," says Dr. Kenneth Cooper, founder of the Cooper Aerobics Center in Dallas.

### **Pinch an inch?**

At his facility, trainers prefer to rely on skin-fold tests that use fat calipers to measure body fat at various points, such as the back of the arm, abdomen and thighs. In addition, they use underwater weighing, a common lab test that determines how much of a person's body is fat and how much is muscle. Other centers also use a measure called the waist-to-hip ratio, which assesses abdominal fat. Some fat is worse than others, and that around the middle is among the deadliest.

But researchers studying large populations of people rely on BMI because it's an easy figure to calculate — they just ask people how much they weigh and how tall they are, and then do the math (weight in kilograms divided by height in meters squared). Averaged across many people, BMI is a good indicator of morbid obesity, Pivarnik says. People with a BMI pushing 40, for instance, are bound to be carrying too much around the middle, and elsewhere.

But when you look at certain individuals, BMI may be way off the mark. In the new study, published in *Medicine & Science in Sports & Exercise*, the researchers calculated both BMI and body fat percentage for 439 college students. To determine body fat, they used a BOD POD — a laboratory test that mimics underwater weighing but requires subjects to sit in a dry chamber rather than getting in water.

Study results showed that male and female college athletes, as well as male non-athletes, could have a BMI suggesting they were overweight yet still have healthy levels of body fat, defined as less than 20 percent fat in men and 33 percent in women. On the other hand, non-athlete women with a BMI indicating a normal weight could have too much body fat. Pivarnik says large amounts of heavy muscle mass in the athletes accounts for the higher BMI, yet the athletes had low body fat because they were in shape. Even young non-athlete men could be muscular and fit yet not overly fat.

For women, the study shows, thin isn't everything. Those who were slim yet didn't work out to build muscle still could be quite fatty.

Pivarnik says he worries that some people, particularly young women, may find that pumping iron puts them into the overweight category per BMI, so they skip weight training altogether. "Don't worry about the thinness," he says. "Worry about the working out part."

### **Model thin but flabby**

Indeed, many experts say that even if you can't be model thin, it's important to exercise. "It's better to be fat and fit than skinny and unfit," says Cooper. Research at his center and elsewhere has shown this to be true. And if you get a BMI suggesting you're overweight, don't freak out, says exercise physiologist Gerald Endress, fitness manager at Duke Diet and Fitness Center in Durham, N.C. Instead, he says, consider getting another test, such as a skin-fold, an underwater weighing or waist-to-hip ratio to more accurately determine your body fat percentage.

Ultimately, it's more important to strive for a healthy lifestyle than to obsess about any particular number. "I actually prefer to have much less focus on BMI, body composition or body weight," says Steven Blair, a professor of exercise science at the University of South Carolina in Columbia, "and instead focus on healthful behaviors — at least 30 minutes of moderate intensity activity at least five days a week, and a diet that is focused on fruit, vegetables, whole grains and limited amounts of saturated fat and highly processed food."

Source: MSNBC.com.



## **COPD AND DIET: AVOIDING WEIGHT LOSS AND STAYING HEALTHIER**

If you have COPD, diet demands may be greater for you than for other people. Your energy may be limited, making it harder to prepare and eat meals. Or you may take medications or experience depression that can reduce your appetite.

But eating healthy foods and maintaining a healthy weight is especially important for you. Learn why—and what you can do to stay healthier.

### **3 Reasons Why a Healthy COPD Diet Is Important**

Did you know that people with COPD burn 10 times the calories of other people? That's because it takes so much energy just to breathe.

If you have chronic obstructive pulmonary disease (COPD), a healthy diet can help manage your condition and help you feel better. Here are three reasons why:

1. If you don't get enough calories and are underweight:
  - You may be more likely to get an infection.
  - You may become weak and tired more often.
  - The muscles that control your breathing may weaken.
2. If you're overweight:
  - Your heart and lungs must work harder.
  - Your body may demand more oxygen.
  - Your breathing may become more difficult, especially if you carry weight around your middle.
3. When you have COPD, a diet full of healthy foods:
  - Helps you maintain a healthy weight
  - Provides your body the energy it needs
  - Supplies enough calories, keeping breathing and other muscles strong

### **Helps your body fight infections by strengthening your immune system**

When you have COPD, you may need to make some diet changes. But always do this under the guidance of a registered dietitian or other health care provider who can prepare a nutrition action plan tailored to your exact needs.

### **Diet for COPD: What to Eat, What to Avoid**

Here are a few COPD and diet guidelines to get you started.

Eat a variety of healthy foods such as vegetables, fruits, whole grains, dairy products, and proteins. High-fiber foods are especially important. They help with digestion, control blood glucose levels, reduce cholesterol levels, and can help control weight.

Drink plenty of water. Not only does it help prevent gas when you eat high-fiber foods, but water helps thin mucus, so you can cough it up easier. Most people need six to eight eight-ounce glasses of water a day. Check with your health care provider, though, because some health conditions require that you limit your fluids.

Choose non-caffeinated and non-carbonated beverages. Limit alcohol, which has little nutritional value, can interact with medications, can slow breathing, and may make it harder to cough up mucus.

Ask about supplementation. Certain supplements, such as omega-3 fatty acids, may help reduce inflammation and improve lung function. Ask your doctor or other health care provider if this is appropriate for you.

Avoid salt. Salt (sodium) makes your body retain water, which increases swelling. This makes breathing more difficult.

### **To reduce your salt intake, try to:**

- Read food labels and choose foods with fewer than 300 milligrams of sodium per serving.

- Use no-salt spices.

- Avoid adding salt while cooking.

### **Avoid foods that cause gas or bloating.**

Everyone knows how uncomfortable that full-stomach feeling is. And it makes breathing more difficult, too. To minimize gas or bloating, avoid foods and drinks such as:

- Beans, broccoli, Brussels sprouts, cabbage, and cauliflower

- Carbonated beverages

- Fried, spicy, or greasy foods

### **Avoid empty foods.**

Junk foods such as chips and candy don't provide any nutritional value.

If you need to gain weight, choose more high-protein, high-calorie foods such as cheese, peanut butter, eggs, milk, and yogurt. Remember to ask about nutritional supplements to increase the number of calories and nutrients you get each day.

### **COPD and Diet Tips: How to Make Eating Easier Conserve energy:**

Choose foods that are easier to prepare. It's more important to eat than to prepare fancy foods.

Get help with meal preparation—ask your family or friends for help, or check with local government agencies or church organizations about meal deliveries. Many are low-cost; some are free.

Freeze extra portions and take them out when you're extra tired.

Eat your main meals earlier in the day when you have extra energy.

### **Breathe easier at mealtimes:**

Eat sitting up, not lying down. This prevents extra pressure on your lungs.

If you use continuous oxygen, wear your cannula while eating to provide the energy your body needs for eating and digestion.

Take small bites, chew slowly, and breathe deeply while chewing.

- Choose easy-to-chew foods.

- Eat smaller, more frequent meals.

Drink fluids at the end of the meal so you don't fill up too fast.

### **Stimulate your appetite:**

- Keep healthy foods visible and within easy reach.

- Eat a variety of healthy foods, especially your favorites.

Use colorful place settings or play background music while eating.

- Eat with other people as often as you can.

- Walk or do light exercises.

### **COPD and Diet: How to Monitor Your Weight**

To help monitor and maintain a healthy weight:

Weigh yourself once or twice a week, or as often as your doctor suggests. If you take water pills, called diuretics, you should weigh yourself every day.

Contact your doctor if you gain or lose 2 pounds in one day or 5 pounds in one week.

Make changes in your diet under the guidance of a health care provider.

If you need to lose weight, ask about special exercises that may also strengthen your chest muscles.

Source: WebMD



### **CUT CALORIES AT MEALS WITH A SOUP STARTER**

Eating low-calorie soup before a meal can help cut back on how much food and calories you eat at the meal, a new Penn State study shows. Results show that when participants in the study ate a first course of soup before a lunch entree, they reduced their total calorie intake at lunch (soup + entree) by 20 percent, compared to when they did not eat soup.

"This study expands on previous studies about consuming lower-calorie soup as a way to reduce food intake," says co-author Dr. Barbara Rolls, who holds the Guthrie Chair of Nutrition at Penn State. "Earlier work suggests that chunky soup may be the most filling type of soup, so the purpose of this study was to determine whether different forms of soup might have different effects on food intake. "

The study tested whether the form of soup and the blending of its ingredients also affected food intake and satiety. All of the soups tested in the study were made from identical ingredients: chicken broth, broccoli, potato, cauliflower, carrots and butter. However, the methods used to blend the ingredients varied, so that the form of the soup changed. Soups tested included separate broth and vegetables, chunky vegetable soup, chunky-pureed vegetable soup, and pureed vegetable soup.

While researchers thought that increasing the thickness or the amount of chewing required may have made certain forms of soup more filling, results of the study show that low-calorie soup is filling regardless of its form.

Julie Flood, a doctoral student in nutritional sciences at Penn State, and Rolls presented their findings at the Experimental Biology Conference in Washington, D.C.

"Consuming a first-course of low-calorie soup, in a variety of forms, can help with managing weight, as is shown in this research and earlier studies. Using this strategy allows people to get an extra course at the meal, while eating fewer total calories," says Flood. "But make sure to choose wisely, by picking low-calorie, broth-based soups that are about 100 to 150 calories per serving. Be careful of higher-calorie, cream-based soups that could actually increase the total calories consumed."

Source: medicalnewstoday



### **BEVERAGE PATTERNS MAY 'MAKE OR BREAK' YOUR DIET**

Americans are filling their glasses with too many sugary drinks and not enough nutrient-rich beverage choices like low-fat milk, which may be affecting their weight and diet quality, suggests a new study presented at the Experimental Biology meeting.

Researchers from ENVIRON International Corporation conducted a comprehensive analysis of U.S. beverage patterns, examining all of the liquids consumed by a national sample of 10,000 adults, teenagers and children. The data were from the 1999-2002 National Health and Nutrition Examination Surveys (NHANES) coordinated by the federal government.

The study revealed that among most age groups, the largest proportion of beverage calories comes from sugar-sweetened drinks, a category that includes soft drinks, fruit drinks and pre-sweetened teas. In fact, in some age groups, the average intake of sugar-sweetened drinks was more than three times that of milk.

This trend of sugar-laden drinks replacing milk could be negatively affecting Americans' weight. The study found that preteen girls, teenage girls and women ages 19 to 49 whose diets consisted of more milk and fewer sweetened beverages had significantly lower Body Mass Indexes (BMI) compared to those who drank little milk and more sweetened beverages.

"We had little nationwide data among all age groups on the connection between beverage choice and BMI prior to this study," said co-author Rachel Johnson, PhD, RD, dean and professor of nutrition at the University of Vermont. "We know that Americans are consuming an alarming amount of sugary drinks. Furthermore, the consumption of milk beverages in place of these sweetened beverages may play a beneficial role in weight management, particularly among preteen and teenage girls and women."

Additionally, the new analysis found that the choice of beverage seems to make a difference in overall nutrition. People who drank more milk and fewer sweetened beverages had diets that were significantly higher in vital nutrients including calcium, magnesium, potassium and vitamin A. In the general population, sweetened beverages substantially contributed to calories and added sugar intakes, while providing fewer nutrients other than vitamin C.

"Our research tells us that beverages make significant contributions to energy and nutrient intakes of Americans, and gives us good reason to recommend that people choose nutrient-rich beverages like low-fat and fat free milk," explains co-author Susan Barr, PhD, RD, professor of nutrition at the University of British Columbia. "This study suggests that consumption of milk beverages in place of sweetened beverages may be associated with a healthy weight."

Source: medicalnewstoday



### **KEEP HEALTHY SNACKS HANDY**

Research actually shows that snacking in between meals, or even eating 4-5 smaller meals throughout the day, is better for you than the traditional two or three larger meal routine. That is,

of course, if you are eating nutritious snacks instead of the all-too-popular vending machine potato chips and soda, which many of us are drawn to. So really, it's a matter of making good snack choices when it's time for a food break. Power foods are always a good bet, because they usually combine high nutrients and lower calories. These could be anything from grains to dairy to fruits and vegetables.

Healthy snack choices start at the grocery store. That's where the decision is made to eat healthy snacks – not at the office or on the coach, but at the grocery. You still want to watch how much of these healthy snacks you eat. This is a snack, remember, not a meal. So buy, cut up or make single servings of any snack food you can. Here are some healthy snack ideas to consider next time you head to the grocery.

### Healthy Snack Ideas

Yogurt	Fruit cup	Apple
Banana	Pear	Peach
Grapes	Plum	Orange
Berries	Watermelon	Raisins
Carrots	Celery	Broccoli
Mixed nuts	Tomato	Chicken noodle soup
Cauliflower	Green or red peppers	Bean soup
Peanut butter crackers	Nuts	Trail mix
Whole wheat cereal with skim milk		Oatmeal
Whole wheat bagel or toast		Pure bran muffins
Fruit smoothie	Spinach	Sweet potato
Broth-based vegetable soup		Skim and low-fat milk



### ITALIAN VEGETABLE BAKE

This hearty vegetable bake recipe is full of nature's goodness: tomatoes, green beans, okra, zucchini, eggplant, peppers and herbs. It's also low in saturated fat and sodium, so you can feel good about every mouthful— it is low-sodium, cholesterol-free and prepared without any added fat..

#### Ingredients

makes 18 Servings

- 1 can (28 oz) whole tomatoes
- 1 medium onion, sliced
- 1/2 lb fresh green beans, sliced
- 1/2 lb fresh okra, cut into 1/2-inch pieces or
- 3/4 C 1/2 10-oz pkg frozen okra
- 3/4 C finely chopped green pepper
- 2 Tbsp lemon juice
- 1 tsp chopped fresh basil, or 1 tsp dried basil, crushed
- 1-1/2 tsp chopped fresh oregano leaves, or 1/2 tsp dried oregano, crushed
- 3 medium (7-inch long) zucchini, cut into 1-inch cubes
- 1 medium eggplant, pared and, cut into 1-inch cubes
- 2 Tbsp grated Parmesan cheese

#### Directions

Drain and coarsely chop tomatoes. Save liquid. Mix together tomatoes and reserved liquid, onion, green beans, okra, green pepper, lemon juice, and herbs. Cover and bake at 325° F for 15 minutes.

Mix in zucchini and eggplant and continue baking, covered, 60-70 more minutes or until vegetables are tender. Stir occasionally.

Sprinkle top with Parmesan cheese just before serving.

**Nutrition Per Serving:** Serving Size: 1/2 cup

Calories: 36; Total fat: less than 1 g; Saturated fat: less than 1 g; Cholesterol: less than 1 mg; Sodium: 86 mg

Source: Stay Young at Heart by the NHLBI/NIH



### SIMMERED PEACHES

Preparation Time: 30 minutes

Number of Servings: 4

Cups of Fruits and Vegetables Per Person: 1

#### Ingredients:

- 1/4 cup fruit-only marmalade or peach preserves
- 2 Tbsp frozen orange juice concentrate
- 2 Tbsp water
- 1/8 tsp ground cinnamon
- 4 firm-ripe peaches, cut into 3/4"-thick wedges
- 1 Tbsp natural (un-blanched) sliced almonds
- 2 Tbsp fat-free sour cream

#### Directions:

1. In a medium saucepan, combine preserves, orange juice concentrate, water, and cinnamon; stir until syrupy. With rubber spatula, fold in peaches and mix gently until well coated.
2. Place pan over medium-high heat and bring to a simmer, stirring gently from time to time. Cover, reduce heat to medium-low, and simmer, turning peaches several times, 5 to 8 minutes, or until peaches are softened but not mushy. Remove pan from heat and set aside, covered.
3. In a small skillet, toast almonds over medium-high heat, tossing frequently, until lightly browned. Remove the almonds from the pan as soon as you've finished toasting them or they will continue cooking and may burn. Immediately transfer toasted almonds to small plate.
4. To serve, spoon peaches and syrup into dessert dishes or goblets. Sprinkle with toasted almonds and top with sour cream. May also be served chilled, if you wish.

Nutrition Facts Serving Size 1/4 of recipe

Amount Per Serving: Calories 130 Calories from Fat 10

Source: 5aday.gov.

**GO RED RECIPE OF THE MONTH****SALMON SORRENTO**

Serves 4; 3 ounces fish per serving

With its thick, colorful sauce, this dish provides a way to dress up salmon without covering up its natural flavor.

- 1 tablespoon extra-virgin olive oil
- 5 medium Italian plum tomatoes, diced
- 6 medium black olives, coarsely chopped
- 6 medium green olives, coarsely chopped
- 3 tablespoons lemon juice
- 2 tablespoons coarsely or finely chopped fresh parsley (Italian, or flat-leaf, preferred)
- 1 tablespoon capers, rinsed and drained
- 1 1/2 teaspoons bottled minced garlic or 3 medium cloves garlic, thinly sliced
- Pepper to taste
- 1-pound salmon fillet

Heat a large skillet over medium-high heat. Add oil and swirl to coat bottom of skillet. Add tomatoes, black and green olives, lemon juice, parsley, capers, garlic, and pepper; stir to mix. Bring to a boil over medium-high heat, 2 to 3 minutes. Reduce heat to medium and cook until mixture is reduced by about one third, about 5 minutes, stirring occasionally.

Meanwhile, rinse salmon and pat dry with paper towels.

Using a spoon, push reduced sauce to one side and place salmon in skillet. Spoon sauce over salmon. Cook, covered, over medium heat for 15 to 17 minutes, or until salmon flakes easily when tested with a fork.

**Nutrition Analysis (per serving)**

Calories 202; Protein 24 g; Carbohydrates 6 g Fiber 1 g;

Cholesterol 84 mg; Sodium 337 mg

Total Fat 9.0 g

Saturated 2.0 g

Polyunsaturated 1.0 g

Monounsaturated 5.0 g

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**SPICY SOUTHERN BARBECUED CHICKEN**

Removing the chicken fat and skin and adding no salt to the tasty sauce makes this chicken favorite heart-healthy.

**Ingredients**

- 3 lb chicken parts (breast, drumstick, and thigh), skin and fat removed
- 1 large onion, thinly sliced
- 3 Tbsp vinegar
- 3 Tbsp Worcestershire sauce
- 2 Tbsp brown sugar
- to taste black pepper
- 1 Tbsp hot pepper flakes
- 1 Tbsp chili powder
- 1 C chicken stock or broth, skim fat from top

**Directions**

Place chicken in a 13x9x2-inch pan. Arrange onions over the top.

Mix together vinegar, Worcestershire sauce, brown sugar, pepper, hot pepper flakes, chili powder, and stock.

Pour over the chicken and bake at 350° F for 1 hour or until done.

Baste occasionally.

**Nutrition Per Serving** Yield: 8 servings

Serving Size: One chicken part with sauce

Calories: 176; Total fat: 6 g; Saturated fat: 2 g; Cholesterol: 66 mg; Sodium: 240 mg

Source: NHLBI

**WHITE BEANS, SPINACH & TOMATOES OVER PARMESAN TOASTS**

Makes 4 servings

**Ingredients:**

- 4 thick slices country-style whole-wheat bread
- ¼ C freshly grated Parmesan cheese
- 2 Tbsp.s extra-virgin olive oil
- 4 cloves garlic, chopped
- 4 medium plum tomatoes, chopped
- 1 15-ounce can white beans, rinsed
- 1 10-ounce bag baby spinach
- ½ Tsp. freshly ground pepper
- ¼ Tsp. salt
- ½ C vegetable broth
- ¼ C sliced fresh basil or 2 Tbsp.s prepared pesto

**Instructions:**

1. Preheat oven to 450°F.
2. Top bread with Parmesan, place on a baking sheet and bake until the bread is crispy and the cheese is melted, 5 to 7 minutes.
3. Heat oil in a large nonstick skillet over medium-high heat. Add garlic and cook, stirring constantly, until fragrant, 30 seconds to 1 minute. Stir in tomatoes and beans and cook, stirring often, until the tomatoes are beginning to soften and the beans are heated through, 2 to 4 minutes. Stir in spinach, pepper, salt and broth and cook, stirring constantly, until the spinach is just wilted, 2 to 3 minutes. Remove from the heat and stir in basil (or pesto). Spoon the bean-and-spinach mixture over the Parmesan toasts and serve hot.

**Tips:**

The spinach-and-bean mixture can be stored, covered, in the refrigerator for up to 2 days. Reheat in the microwave.

**NUTRITION INFORMATION:** Per serving: 270 calories; 10 g fat (2 g sat, 6 g mono); 4 mg cholesterol; 44 g carbohydrate; 13 g protein; 15 g fiber; 729 mg sodium.

**PHILLY CHEESE STEAK MEATLOAF****Meatloaf**

- 1/2 cup chopped onion
- 1/2 cup chopped green or red bell pepper, or a combination
- 2 garlic cloves, minced
- 2 teaspoons olive oil
- 1-1/2 pounds lean ground beef
- 3/4 cups Quaker® oats (quick or old fashioned, uncooked)
- 1/2 cup tomato sauce OR catsup
- 1 egg, slightly beaten
- 1 teaspoon salt
- 1/2 teaspoon pepper
- 3 slices provolone cheese, cut in half\*

**Topping**

- 1 large onion, thinly sliced
- 1 large green or red bell pepper, or a combination, thinly sliced
- 1/2 teaspoon salt
- 1 tablespoon olive oil

**Preparation Steps**

Heat oven to 350°F. For meatloaf, cook onion, green pepper and garlic in oil in medium skillet until tender. In large

bowl, combine ground beef, oats, tomato sauce, egg, salt, pepper and onion-pepper-garlic mixture; mix lightly but thoroughly. Shape mixture into 8 x 5-inch loaf on rack of broiler pan.

Bake 50 to 55 minutes or until center of meatloaf registers 160°F on an instant-read thermometer. Arrange cheese on top of loaf, overlapping slices; bake an additional 5 minutes or until cheese has melted.\* Let meatloaf stand 5 minutes before cutting.

For topping, cook sliced onion, sliced peppers and salt in oil until tender. To serve, cut meatloaf into slices; arrange slices on plate topped with onions and peppers.

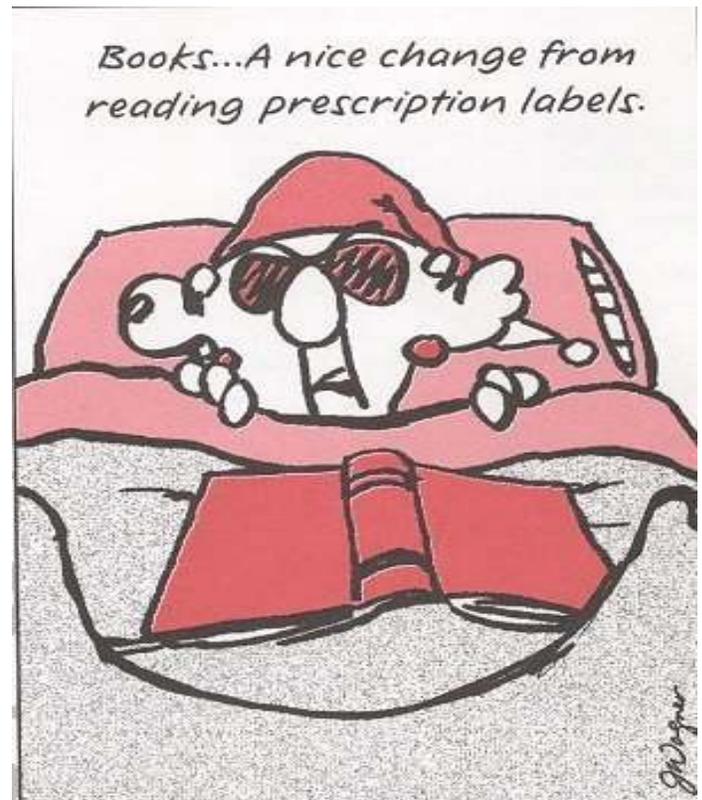
**Cook's Tips:**

\*If desired, substitute 2/3 cup shredded mozzarella cheese for provolone cheese. Slice meatloaf. Sprinkle with cheese, top with cooked peppers and onions.

Recipe Yield: 6 servings      Source: Quaker Oats Kitchen



The 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



## EFFORTS

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