



A bi-monthly publication by the Department of Pulmonary Rehabilitation

## Depression and COPD From an article by Maria Buckley, PhD

Depression impacts approximately 40 percent of COPD patients. This mood disorder is treatable but has to be recognized to be treated. The signs and symptoms of depression can include depressed mood, loss of pleasure, appetite changes, sleep difficulties, a sense of worthlessness or extreme feelings of guilt, fatigue, slowing down or agitated movement, and/or suicidal thoughts. *If you are having suicidal thoughts, seek immediate attention by calling 911 or go to your local emergency room.* It is also important to rule out a medical cause for symptoms of depression by physician evaluation. Sometimes a medical condition, such as hypothyroidism can cause symptoms of depression.

There are different treatment options for depression. The most common and effective treatments are medications and psychotherapy. Some benefit from one or both types of treatments. Cognitive behavioral therapy has been

shown to be an effective treatment for depression. This type of therapy teaches patients how to reshape their thinking patterns. For example, when people are depressed they often have a negatively skewed view of themselves, the world and the future. Cognitive behavioral therapists can help people look at their thoughts in a more objective, positive manner. The therapist can help the patient to move along a more productive path in living his or her life. Cognitive behavioral therapists also prescribe behavioral steps for patients to take to improve their moods. For example, aerobic exercise or pulmonary rehabilitation can help to reduce depression. Ask your physician about exercise or for a referral to pulmonary rehabilitation. Additionally, many people who are depressed do not

have enough pleasure in their lives. Therefore, therapists advise patients to begin to increase pleasurable activities in their lives on a regular basis. Some examples include going to the movies, having a manicure, reading a favorite magazine, going to lunch with friends or joining a club. Medications such as antidepressants also can be helpful in treating depression. Be sure to review the benefits and risks of medication with your physician. Find a cognitive behavioral treatment provider on the Association for Behavioral and Cognitive Therapies website: [www.abct.org](http://www.abct.org). Contact your state for a listing of licensed psychologists who are trained in cognitive behavioral therapy. Books on cognitive behavioral therapy include *Feeling Good* by David Burns, MD and *Learned Optimism* by Martin Seligman, PhD.



## COPD: A Multifactorial Systemic Disease

By A. Huertas and P. Palange, from *Therapeutic Advances in Respiratory Disease*, 2011

COPD has traditionally been considered a disease of the lungs most commonly caused by cigarette smoking and associated with obstruction of airflow from both airway (bronchitis) and lung (emphysema) damage. It is now clear that COPD is associated with significant abnormalities outside the lungs such as muscle wasting, osteoporosis, malnutrition, and anemia. However, it is still unclear whether these abnormali-

ties are due to lung disease or whether COPD should be considered a multi-system disease. These abnormalities have been attributed to an increased level of inflammation in various parts of the body. Research is exploring other factors that may impact changes outside the lungs. Recent research suggests a vascular component is involved with emphysema. Other studies have looked at defects in tissue repair, bone marrow

abnormalities, genetic factors, immunological disorders and infections as potential causes of COPD-related disorders.

### TABLE OF CONTENTS

Depression and COPD.....	1
COPD: A Multifactorial Systemic Disease.....	1
Nutrition and Supplements.....	2
Pulse Oximetry Guide Now Available.....	2
Autumn is the Time to Prepare for Healthy Winter.....	3
Need to Relax? How About Using Your Smartphone? ...	3
Bay Area Premier of "The Power of Two" — a Documentary About the Miracle of Breath.....	4

# Changes in Diet and Lifestyle and Long-term Weight Gain in Women and Men

By D. Mozaffarian and colleagues from *The New England Journal of Medicine*, June 23, 2011

The authors reviewed studies that followed over 120,000 Americans for 10 to 20 years and evaluated the relationship between lifestyle and weight changes. Within each four-year period, participants gained an average of 3.4 pounds. Weight gain was most strongly linked with eating potato chips, potatoes, sugar-sweetened beverages, unprocessed red meats and processed meats. Foods least associated with weight gain were vegetables, whole grains, fruits, nuts, and yogurt. Physical activity was associated with weight loss, whereas alcohol use, smoking, former smoking, and sleeping less than six or more than eight hours per night were associated with weight gain. TV

watching was associated with 0.31 pound weight gain per hour per day of TV watched.

Dietary Guidelines for Americans 2010 includes recommendations for balancing calories to manage weight. The guidelines identify that serving larger portion sizes is associated with greater calorie consumption. Sedentary behavior also negatively affects weight control. When looking at calories consumed by Americans, the greatest calorie intake comes from grain-based desserts, followed by breads, poultry dishes, soda and sport drinks, alcohol, pizza, Mexican foods, pasta, beef dishes, dairy desserts, burgers and cheese. Recommendations for balancing calories and physical



activity include monitoring calories consumed and food intake, increasing intake of whole grains, vegetables and fruits, and monitoring calories from alcohol, reducing intake of sugar-sweetened beverages, preparing and serving smaller portion sizes, eating a nutritious breakfast and limiting screen time.

## Pulse Oximetry Guide Available

The American Thoracic Society has published a patient information series on Pulse Oximetry (<http://patients.thoracic.org/information-series/en/resources/ats-patient-ed-pulse-oximetry.pdf>). The guide includes information on how oximeters work, who should buy one, when to use them and device accuracy.

## Vitamin D Status in Patients with COPD who Participate in Pulmonary Rehabilitation (PR)

By T. Ringbaek and colleagues from *The Journal of Cardiopulmonary Rehabilitation*

Vitamin D appears to influence many aspects of health and disease, including autoimmune disorders, chronic infections, cancer, cardiovascular disease and muscle strength. Vitamin D deficiency is common in COPD and vitamin D levels may have a relationship with lung function. This

study of 311 PR patients found that low vitamin D levels in COPD were associated with a higher PR drop out-rate and lower improvement in physical function. Half of the patients had low vitamin D levels and 20 percent had very low levels (less than 25 nM).

## Vitamin D Supplementation

Adapted from a Cochrane Database Review from 2011 by G. Bjelakovic and colleagues

This research compared vitamin D versus placebo in 94,148 adults in 50 well-designed studies of predominantly older women. The participants

used Vitamin D for an average of two years. Overall, vitamin D decreased mortality in the studies. The benefit was significant in vitamin D3 or cho-

lecalciferol compared to vitamin D2 or ergocalciferol. Discuss use of vitamin D as well as combining vitamin D with calcium with your doctor.

# Autumn is the Time to Prepare for Healthy Winter

As with many things, the best defense is a good offense. Strategies to prevent and limit respiratory infections include:

- Plan to get your annual flu vaccine in October or November
- Practice frequent hand washing or hand cleansing with soap and water or alcohol gel solutions
- Avoid others with colds, flu or symptoms of respiratory infections
- Stay healthy by getting enough regular exercise, using inhaled medication as ordered by your doctor, eating a well-balanced diet and balancing life with fun activities and/or helping others
- See your doctor regularly to keep you as healthy as possible.



An important recent study identified that the majority of persons with COPD who acquire a rhinovirus infection develop a secondary bacterial infection shortly thereafter. Human rhinoviruses are the most common viral infective organism in humans and are the predominant cause of the common cold. There are two modes of transmission of rhinovirus: from aerosol particles of respiratory droplets (usually following coughing or sneezing from an infected person) and from contaminated surfaces, including direct person-to-person contact. Symptoms of rhinovirus infection include sore throat, runny nose, nasal congestion, sneezing and cough; sometimes accompanied by muscle aches, fatigue, malaise, headache, muscle weakness, or loss of appetite. Fever and

extreme exhaustion are more common in influenza. Most infections occur between September and April.

Talk to your doctor about early treatment of colds or flu with antiviral medication to prevent possible progression to respiratory bacterial lung infections. In a study reported at the American Thoracic Society meeting in May 2011, 60 percent of COPD patients who were experimentally infected with rhinovirus developed a bacterial infection approximately a week later. The rates were six times higher in persons with COPD than smokers with normal lung function and nonsmokers. One theory is that the virus may worsen inflammation that degrades key defense mechanisms in the airways, leaving patients vulnerable to bacterial infections. In the study, the viral load peaked on day nine, whereas the bacterial load peaked almost a week later. Ask your physician or pulmonary rehabilitation staff about preventing and minimizing lung infections.

## Need to Relax?

### How About Using Your Smartphone?

Adapted from APP SMART by Bob Tedeschi of the *New York Times*

It may be hard to think of a Smartphone as a tool for relaxation. Several Smartphone applications—or apps—are dedicated to guided meditation and sleep enhancement. A few are listed below.

*Simply Being* (\$1 on Apple, Android and Blackberry) offers guided meditation for relaxation and presence, with 5, 10, 15 and 20 minute options. Music and nature sounds are available to accompany the narrative with adjustable volume levels.

*Mindfulness Meditation* (\$2 on Apple) is written and narrated by

Stephen Bodain, author of *Meditation for Dummies*. The narrative is thorough, relaxing and appropriate for meditation novices. It uses no music or sounds but extensive content. Meditations are 5, 10, 15, 20 and 30 minutes in length and a simpler relaxation narrative of 10 minutes is included. The guide has tips for “meditation positions” and a text checklist of factors to improve the experience.

*Pzizz Sleep* (\$6 on Apple) and *Pzizz, the Insomnia Solution* (\$5.69 on Android) use binaural sounds, spoken

words and music in combinations that vary with each use.

*The Mayo Clinic Insomnia Wellness Solution* (\$25 on Apple) includes a multipage stress assessment and 90 minutes of videos (both best on iPads). Some content promotes the app developer and the Mayo Clinic.

*Universal Breathing Pranayama Free* (free on Apple) and *Pranayama Free* (on Android) focus on slowing and controlling breathing. The app may be slow to load and not easily responsive to touch.



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## Announcing the Bay Area Premiere of *The Power of Two*, a Documentary Film About the Miracle of Breath!



*The Power of Two*, a much anticipated documentary film about cystic fibrosis and lung transplantation from Twin Triumph Productions, will

be premiering in San Francisco at the Castro Theatre on Saturday, Sept. 10.

*The Power of Two* was inspired by the 2007 memoir of Bay Area half-Japanese identical twins and lung transplant survivors, Anabel and Isabel Stenzel. Defying all odds, Anabel and Isabel have emerged as authors, athletes and global advocates for chronic illness and organ donation. Their connection to the cystic fibrosis (CF) and transplant communities provides rare insight into the struggles — and

overlooked joys — of chronic illness. The film was directed and produced by Marc Smolowitz, Oscar-nominated producer of *The Weather Underground*, and will feature patients with CF and organ transplants, who teach us lessons about the miracle of breath while portraying two lives, two cultures and two new chances at life.

Show times are 2:00 p.m. (matinee includes film and Q&A) and 7:30 p.m. (evening showing includes film, Q&A, and music performances by soundtrack artists).

Regular admission is \$20 for matinee and evening shows, and VIP tickets are \$125, \$100 of which is tax-deductible through Twin Triumph Productions' nonprofit fiscal sponsor, Fractured Atlas. There is a 6:00 p.m. VIP reception prior to the 7:30 p.m. film screening. Proceeds will benefit the film company's Outreach & Community Engagement Campaign to increase awareness about lung disease and organ donation/transplantation.

For information about the film or to purchase tickets, visit [www.thepoweroftwomovie.com/the-film/](http://www.thepoweroftwomovie.com/the-film/).

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