

# SAIL Home Oxygen Program

# Tester's Newsletter



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This newsletter is produced by the Lung Association of Saskatchewan through a contract with Saskatchewan Health.

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## We're going Green!

### Did you receive this newsletter in the mail?

This will be the last edition of this newsletter that will be available in print form. By the fall of 2014 only an electronic newsletter will be available.

To receive the electronic version, please go to the Lung Association web site: [www.sk.lung.ca](http://www.sk.lung.ca). Choose health professionals and then oxygen testers. Please log-in to change your contact information and add an email address. You can also contact Marion Laroque to obtain your tester number and password through this on-line location.

While you are on the web site, why not recertify? It only takes about 15 minutes. Recertification is recommended every 2 years. Any tester who has not recertified in 10 years is removed from the list. The Tester's Handbook and all issues of the newsletter can also be downloaded through the Lung Association web site.

## Home Oxygen Tester's Workshops Via Telehealth Conference

Two Telehealth workshops have been scheduled this year:

**Thursday, February 27, 2014 from 1 - 3pm**

and

**Tuesday, April 29, 2014 from 1 - 3pm**

Want to attend?

Sign up with your local Telehealth coordinator 48 hours before the broadcast time.

## **Bronchiectasis**

Bronchiectasis is a condition in which the bronchi are damaged and become thick and dilated. These dilated bronchi lose the ability to clear mucus, leaving a build-up which is prone to infection. A viscous cycle of infection, leading to inflammation, leading to mucus-build-up, leading to infection, causes the condition to progress.

Our lungs are the only major organ directly exposed to the outside environment, and can easily be damaged by a variety of airborne particles including: micro-organisms, pollutants, and foreign particles such as dust and pollen. Serious infections such as pneumonia, pertussis or tuberculosis can cause permanent damage to the lungs. In about 50% of the cases of bronchiectasis, a clear cause of the damage can be identified. In the rest of the cases, no cause can be found.

There is no cure for bronchiectasis. It is not uncommon, but the exact prevalence is not known. It affects both children and adults.

### **Symptoms:**

The hallmark symptom of bronchiectasis is persistent, productive cough, often over many years. People with bronchiectasis can produce a cup of thick sputum per day. Bronchiectasis should be suspected when there is a productive cough and no history of smoking. Other symptoms include: shortness of breath, wheeze, chest pain, tiredness, and hemoptysis.

### **Diagnosis:**

The presence and possible causes of bronchiectasis should both be explored.

Tests include:

- Chest x-ray
- High resolution CT scan to identify damaged bronchi
- Pulmonary function tests
- Sputum culture to identify bacteria colonization
- Sweat test to rule out cystic fibrosis
- Blood tests to rule out immunity deficiencies

### **Treatment:**

Treatment of any infection with antibiotics is the mainstay of the treatment of bronchiectasis. Mucus clearing techniques including chest physical therapy and postural drainage should be performed regularly. Adequate intake of fluids to keep mucus as thin as possible is also important. Bronchodilators are prescribed to people who show an improvement with bronchodilation on pulmonary function tests. Inhaled steroids are not recommended for the treatment of bronchiectasis. Regular exercise is also important to maintain lung function.

## Severe Asthma

Asthma severity is not defined by the number of asthma attacks (exacerbations) a person experiences, but by the amount of pharmacotherapy required to maintain control of the condition.

Severe asthma is defined as “asthma which requires treatment with high dose inhaled corticosteroids plus a second controller (and/or systemic corticosteroids) to prevent it from becoming uncontrolled or which remains uncontrolled despite this therapy.”

An example of a high dose of inhaled corticosteroid would be greater than 500mcg of Flovent per day. A second controller would usually be a long-acting beta-agonist. A combination inhaler such as Advair or Symbicort is usually prescribed to deliver both medications.

### What is asthma control?

The following are signs of good asthma control:

- ✓ Daytime symptoms < 4 days per week
- ✓ Nighttime symptoms < 1 night per week
- ✓ Physical activity is normal
- ✓ Exacerbations are mild, infrequent
- ✓ No absence from school or work due to asthma
- ✓ Need for rescue medication (usually Ventolin) < 4 doses per week

All people with asthma, no matter what the severity, should have access to a fast-acting bronchodilator to use when needed. Fast-acting bronchodilators include: salbutamol (Ventolin or Airomir) and terbutaline (Bricanyl).

## New Research

### Sleep Duration and Pneumonia Risk

The Nurses' Health Study II is a very large longitudinal study which began in 1989 with over 116,000 female nurses aged 25 – 45 years old. This study's purpose is to research diet and lifestyle risk factors. Many of the nurses enrolled in this study are the daughters or nieces of the original Nurses' Health Study which began in 1979.

Since 2001 sleep questions have been added to the biennial questionnaire each participant receives. Researchers have now used this information to study the possible link between sleep duration and pneumonia. They found that women who sleep  $\leq 5$  hours per night were at a 70% greater risk of developing pneumonia than those who slept for 8 hours. It was also found that women who slept longer than 9 hours also have a 50% higher risk of developing pneumonia. Perhaps the old adage “Early to bed and early to rise” is still the model for best health.

Reference: Patel et al, *Prospective Study of Sleep Duration and Pneumonia Risk in Women*, SLEEP, Vol. 35, No. 1, 2012, pp 97-101.

## **Radon Mitigation (Repair) in Saskatchewan**

D-A-F Radon Solutions, located in Regina, is the first radon mitigation company in this province to be certified by the Canadian National Radon Proficiency Program. This certification is the recognized standard of Health Canada. Brothers Dan and Frank Kirkpatrick can be reached at 306-552-6772 or 306-552-6773. Check out their web site at: <http://www.dafradonsolutions.ca/>



Radon is the second leading cause of lung cancer in Canada, after smoking. Radon exposure is estimated to be the cause of 10% of lung cancers. The risk of getting lung cancer from radon depends mostly on three factors: the level of radon, the number of years of exposure, and smoking habits. The risks for developing lung cancer from radon exposure are greater for a person who smokes or someone exposed to second hand smoke.

Health Canada and the Lung Association recommend that you test your home for radon, an invisible gas that can cause lung cancer. Radon test kits are available from the Lung Association of Saskatchewan for a cost of \$50. The cost also includes the analysis from the Saskatchewan Research Council. The best time to test the home is during the winter heating months when the home is more tightly closed than in the summer. If high levels of radon gas are found, a trained expert can locate where the gas is seeping in and make the necessary repairs.

## **COPD and Sleep Apnea: Overlap Syndrome**

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COPD (chronic obstructive pulmonary disease) and sleep apnea are common conditions affecting many Canadians. COPD does not cause sleep apnea, nor does sleep apnea cause COPD, but the combination of the two is called Overlap Syndrome. Unfortunately, each condition can make the symptoms of the other worse. For example, the drops in oxygen levels that occur with sleep apnea are lower and longer when combined with COPD. People with COPD and sleep apnea have more frequent exacerbations (flare-ups) that can lead to hospitalization.

Nocturnal testing for the SAIL program is sometimes requested while the person is using CPAP. This is to determine if supplemental oxygen is required in addition to the CPAP therapy. CPAP therapy alone will decrease the number of desaturations due to apnea, but the person may still have an oxygen level below 88%. This should be treated with oxygen which is added to the CPAP circuit.

## Air Zone Management

The Saskatchewan Ministry of Environment, along with local partners, has set up air zone management groups to monitor air quality and evaluate trends in air quality. There are currently two active air zone management groups, with a third one for the Regina-Moose Jaw-Yorkton set to be operational in 2014. Eventually the entire province will be covered, meeting the requirement of the National Council of Environment Ministers.



### What is an air zone?

An air zone is defined as a region within the province that has similar air quality characteristics and challenges in monitoring air quality. Boundaries are decided by topography, meteorology, economic activities, pollution sources and similar air quality issues.

### What is Air Zone Management?

Air zone management can be described as similar to the weather reporting networks of Environment Canada, but providing real-time data on air quality.

Air zone management is conducted by a local group including industry, government, non-government organizations and the public. It is managed by a non-profit Board of Directors. The monitoring is conducted through an independent contractor.

The two current air zone management groups are the Southeast Saskatchewan Airshed Association ([www.sesaa.ca](http://www.sesaa.ca)) and the Western Yellowhead Air Management Zone ([www.wyamz.ca](http://www.wyamz.ca)). You can go to each zone's web site and check the air quality at different locations, for example: Maidstone or Esterhazy.

Our clean prairie air is a tremendous resource and protecting it should be the responsibility of each of us. This begins with knowledge about current conditions and the challenges facing both the public and industry.

<b>SAIL Stats - 2013</b>	<b>Lung Association Stats – 2013</b>
Continuous.....1763	Nocturnal tests completed.....361
Exertional.....416	Waiting list names.....64
Nocturnal .....260	Waiting time.....< 3 months
Pediatric .....26	% positive for sleep apnea.....49%
Total.....2465	

## Nocturnal Testing

Thank you to everyone who has returned the nocturnal testing oximeters in a timely fashion. It is appreciated. The paperwork that accompanies the oximeter is very important for accurate interpretation of the results. It is especially important to know whether the person was using oxygen or not, and if they were on oxygen, the flowrate. It is also very important to know if the person was using their CPAP machine during the test.

This information can all be recorded on item # 6 on the form that travels with the oximeter.

Please ensure that the client fills out this accurately. CPAP in use can also be noted here.

**6. Please check the appropriate box:**

Room air test

Supplementary oxygen test

Time oxygen applied \_\_\_\_\_

Supplementary oxygen used at \_\_\_\_\_ litres/minute

## Tester Reminders

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- ✓ People who are hospitalized can be tested at rest for SAIL continuous oxygen funding.
- ✓ Testing on inpatients should be completed within 48 hours of discharge.
- ✓ Exertional testing should be done on stable patients only.
- ✓ A stable patient has NOT had:
  - a hospital admission
  - a change of treatment, or
  - an exacerbation of cardiorespiratory disease in the past 30 days.
- ✓ Nocturnal testing for SAIL oxygen funding should be done on stable patients only.
- ✓ A 5 minute oximeter printout is all that is required for both the room air and oxygen tests.
- ✓ Remember to record any symptoms the client experienced such as shortness of breath.

# 2014 Respiriology State of the Art Conference

An update for family physicians and health care professionals

**Saturday, June 14, 2014**

TCU Place, Saskatoon

Presentations: 8:00 to 14:00

Spirometry Interpretation Workshop: 14:15 to 17:30

X-Ray interpretation workshop: 14:15 to 17:30

To register please contact

The Lung Association of Saskatchewan: 343-9511 or [info@sk.lung.ca](mailto:info@sk.lung.ca)

## **Methicillin-Resistant Staphylococcus Aureus (MRSA)**

MRSA is carried by an estimated 20% of the Canadian population. It occurs most commonly in people who are in hospital and other healthcare facilities. People with weakened immune systems and chronic conditions are more susceptible to the infection. MRSA is primarily spread by skin to skin contact or through contact with items contaminated by the bacteria.

If you have a client who is MRSA positive and needs nocturnal testing, please include this information on the order form that is faxed to the Lung Association. At the time of testing please leave the shipping case for the oximeter in the office. Only the oximeter itself should enter the home. Please wipe the used oximeter with disinfectant and place in a plastic bag before returning it to the shipping case. This will prevent the case from possible contamination

### **Did You Know?**

- Pneumonia is the leading cause of death in children worldwide.
- Streptococcus pneumoniae is the most common cause of bacterial pneumonia in children.
- Haemophilus influenzae type b (Hib) is the second most common cause of bacterial pneumonia.
- Respiratory Syncytial Virus (RSV) is the most common viral cause of pneumonia in children.
- Parental smoking can increase a child's risk of developing pneumonia.
- Worldwide, only 30% of children with pneumonia receive the antibiotics they need.

## Phone Numbers

### **Saskatchewan Aids to Independent Living (SAIL)**

3475 Albert Street

Regina, SK S4S 6X6

Phone: 1-888-787-8996 Fax: 787-8679

## Oxygen Supply Companies

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### **Medigas A Praxair Company**

Regina: (306) 721-2380 or 1-866-446-6302

Saskatoon: (306) 242-3325 or 1-866-446-6302

Swift Current: (306) 773-8064 or 1-866-446-6302

### **Prairie Oxygen Ltd.**

Regina: (306) 545-8883 or 1-877-738-8702

Saskatoon: (306) 384-5255 or 1-877-738-8702

### **Provincial Home Oxygen Inc.**

Regina: (306) 790-8491 or 1-877-352-5025

Saskatoon: (306) 651-1243 or 1-877-352-5025

Prince Albert: (306) 764-7344

### **VitalAire Healthcare**

Lloydminster: 1-780-875-9777

Regina: (306) 721-0071 or 1-800-567-0071

Saskatoon: (306) 931-3334 or 1-800-461-0096

Prince Albert: (306) 931- 3334

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1231 – 8<sup>th</sup> Street East

Saskatoon, SK S7H 0S5

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