



Newsletter April 2011

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Next Meeting

<p>Thursday 14 March 10am – 2pm lunch and refreshments included \$15 Southern Cross Club Corinna St Woden</p>	<p>The Inaugural LungNet Education Day topics: Fitness to Fly; COPD or Asthma or both; Obstructive Sleep Apnoea</p> <p>for more details, see invitation later in this newsletter</p>
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March Meeting

The March meeting began with cake to celebrate some significant birthdays, checked the wellbeing of our members, then continued with our business, primarily for the Seniors' Expo on Wednesday 24 March at Kingston Markets and for the Education Day in April. We then listened keenly to our speaker for the day, Paula Calcino. Paula, a volunteer facilitator with the *Living a Healthy Life with Chronic Conditions* course, spoke about her own health history which halted her career and completely changed her life. Paula joined several self-help groups and later did the chronic conditions course, developed by Stanford University in the US and now distributed widely around the world and translated into many languages. It is a course which benefited her immensely and she is now an avid co-leader in the ACT. The 6 week free courses (2 1/2 hours per week) are held in the major town centres, SHOUT office, and wherever else they are required. (Phone 6207 9977). A multitude of topics are covered including planning, setting goals, exercise, healthy eating, correct breathing and communication skills.

The course leaders don't claim they can cure your condition, but they can improve your quality of life. As one doctor in the UK said, "The key is the change to the individual's confidence and belief that they can take control of their condition and their life. They can then go on to tackle other things in life."

Some of our members have completed the course. The final wise words come from Laurelle whose experience is: "You only get out of it what you put into it."

Domiciliary Oxygen Concentrators by Albert Richards

In last month's newsletter, Albert Richards wrote about oxygen concentrators, including many factual details about a few brands. In this newsletter we are printing the details of three other brands.

Respironics EasyFlo Domiciliary Oxygen Concentrator



Performance: oxygen purity 0.5 - 5 lpm 93% ± 3%
Dimensions: in. (58.4 cm) high x 15 in. (38.1 cm) wide x 9.5 in. (24.1 cm) deep
Weight: 31 lbs (14 kg)
Input Voltage: 230 Volts AC, 50/60 Hz
Power Consumption: 350 watts **Noise Level:** 45 dBA
Alarms: Power failure: Low oxygen level: 82%, Very low oxygen level: 70%
Operating Temperature: 55°F (12.8°C) to 90°F (32°C)
Humidity: -30°F (-34°C) to 160°F (71°C) up to 95% relative humidity
Environment: Altitude 0 to 7,500 ft (0 to 2,286 m) **Warranty:** 3 years with 5 year option

Comment: *Recently a Respironics EasyFlo ran for only 8,300 hours before suddenly failing without warning. It was replaced with a similar model that is in use today having completed just over 500 hours to date. The Respironics EasyFlo was the quietest, lightest and smallest of the three makes I have used but was the most unreliable.*

DeVilbiss 525DS Domiciliary Oxygen Concentrator



Performance: oxygen purity 93% (+/- 3%) @ 1-5 LPM
Dimensions: 24.5 in. (63.5 cm) high x 13.5 in. (34.3 cm) wide x 12 in. (30.5 cm) deep **Weight:** 36 lbs **Input Voltage:** 240 Volts AC,
Power Consumption: 310 watts less than 2.5 lpm and 270 watts at 2.5 to 5 lpm **Noise Level:** 48 dB **Alarms:** High/low pressure, low flow, low oxygen, power fail, Oxygen Sensing Device
Environment: 10 °C to 35 °C; humidity range of 30 % to 75%; non-condensing
Warranty: 5 Years

Comment: *The DeVilbiss with a 3 year warranty was purchased from new and failed 4 years later having run for approximately 20,000 hours. For the next 2 years it had to undergo repeated expensive repairs before being declared by the local agent as irreparable. The manufacturer refuted the agent's statement,*

claiming that as every part was replaceable the concentrator could never be irreparable. It was the noisiest, heaviest and most cumbersome concentrator used. However, this may not reflect the performance of more modern DeVilbiss concentrators.

Sequal IntegraTEN Domiciliary Oxygen Concentrator



Performance: flow rate: Variable 1 to 10 LPM (1/2 litre increments)
oxygen purity 91%±3% @ sea level (1-10 LPM flow)
oxygen pressure: 7 PSI (48 Kpa) nominal
Dimensions: 26.0 ins. (66 cm) high x 14.7 ins. (37.3 cm) wide x 19.1 ins. (48.5 cm) deep **Weight:** 57 lbs. (26 Kg) **Input Voltage:** Volts AC, 50Hz
Power Consumption: watts (estimated) **Noise Level:** 52.3 db
Environment: performance may decline above 10,000 ft (3,048 metres)
temperature: -4° F (-20° C) to +140° F (+60° C)
humidity: Up to 95% Non-condensing
Warranty: 3 Years

Alarms: power interruption; power surge (simulated circuit breaker); compressor malfunction; excessive internal temperature; outlet pressure [35-36 psig (241.2-248.1 kPa) relief valve]; abnormal oxygen flow rate > ± 30% target flow; low therapeutic oxygen output <70% oxygen

Portable Oxygen Concentrators: some information



A while ago, I asked for information on portable oxygen concentrators. Below is a summary of the information people provided. It is not the definitive information. If you can add to it, please let me know.

Portable oxygen concentrators are increasingly becoming popular, often as a small trolley on wheels, allowing users more flexibility than the oxygen cylinders. Most concentrators work by pulse but some use continuous flow – the latter are more expensive but all portable concentrators are expensive and there are some points that need to be considered before buying one.

Preliminary questions:

- What is the maximum flow rate? ie how many litres per minute – can be up to about 6 litres - cheaper machines tend to give between 1 and 3 litres.
- What is the oxygen purity during delivery? It should be over 93%.
- Is this level of purity also during plane flights?
- What is the battery life? Better ones can be up to 8 hours. Cheaper ones tend to have only about 2 hours.
- What is the weight of the machine? Better ones are about 3-4 kilos.
- Can you try before you buy? That service is often offered.
- Can you use it at night when you are asleep?
- Can you use it with a CPAP machine?
- What is the warranty like?
- Is it easy to get repair and replacement parts?



Comments

- Good to have a spare battery – useful for back up and for longer outings.
- The power pack operates from a cigarette lighter socket in the car.
- Batteries that last longer – double life batteries - are more expensive to buy. The length of battery time also depends on the amount of oxygen generated eg on one machine, the battery lasts 2 ½ hours at an oxygen rate of 2 litres per minute.
- Batteries have a down side: they are lithium ion and are susceptible to heat. If the battery gets too hot, it can explode. The machines should have a built in alarm system to warn you – and they may turn themselves off if you don't do it in a reasonable time. One suggestion is to keep the machine out of its carry bag to allow it to cool. As well, attach the batteries to a power source whenever possible as they then don't get hot.
- Continuous flow concentrators are more expensive than pulse: about \$6000 or more compared to \$3-4000 for pulse.
- Portable concentrators need to be bought and are not provided on loan through the ACT domiciliary oxygen system unlike the portable cylinders.
- The Australian Lung Foundation provide a second hand scheme where people can register what they want to buy/sell with the Lung Foundation.

Some Brands

Eclipse	AirSep	Invacare
Inogen	DeVilbiss Igo	Oxlife

Contacts/Links

- **The Australian Lung Foundation** – is a good source - provides further information on their website. www.lungfoundation.com.au They also provide a booklet on *Getting Started on Home Oxygen*. Ph: 1800 654 301 enquiries@lungfoundation.com.au
- **Oxycare** – provide the medical service to BOC – ie have the medical information. Ph: 1800 050 999 (this is BOC's number)
- Greg Tye from **Inspiration Health Care** in Canberra will come out and do an assessment. Ph: 0417 218 989 (information from The Lung Foundation)
- www.breathe21healthcare.com.au
- www.oxygensolutions.com.au

Energy Saving Device (really) from Maureen Bell

Having read with interest the article on energy conservation strategies in *LungNet*, February 2011, I would like to suggest another thing which can make domestic chores easier. It is a **robot vacuum cleaner by iRobot called Roomba** (I paid \$400 last year at Good Guys), weighs 3 or 4 kgs, disc-shaped, 34 cms diameter and 8 cms high.

The pros -

- You are out of the way while it does its work, so no inhaling of stirred-up dust .
- There is the joy of going out, then coming home to a cleaned area of your house.
- No heavy vac to lug around, no awkward hoses or cords to wrestle with.
- It is efficient on dust extraction, picking up fluff, hair, etc.
- It fits under most items of furniture.
- It has personality, with cheery musical tones.
- You can block off sections not to be cleaned with the 'magic eye' supplied.
- You can set it to spot clean a small area.

The cons

- The battery only copes with one largish room before needing recharging. I usually do a room a day.
- Brushes and dust compartment need cleaning out every time you use it (dust compartment is quite small).
- No dust bag. (Might you have to get someone else to empty it?)
- You have to 'clear the decks' before you begin - no items left on floor, no cords it can get entangled in.
- It has no attachments - dusting brush, upholstery nozzle, groove tool, etc.
- I suspect it uses more power than a regular vac because it takes longer to cover an area.

All in all, I would recommend it; just don't discard your regular cleaner.

Vitamin D Deficiency Alters Lung Growth And Decreases Lung Function

29 Jan 2011 edited from: www.medicalnewstoday.com from Tony @ ChifleyY

Previously linked to the severity of asthma and chronic obstructive pulmonary disease (COPD) in humans, vitamin D deficiency has now been shown to alter lung structure and function in young mice. The new study, conducted by researchers in Australia, offers the first concrete evidence showing that vitamin D deficiency alters lung development, which may explain the association between obstructive lung disease and levels of vitamin D."

To conduct their study, the researchers used a mouse model of vitamin D deficiency and evaluated lung responses of two-week-old mice, comparing them to control mice without vitamin D deficiency to determine what, if any, effects the deficiency may have caused in the growth, structure or function of the lungs.

Specifically, the researchers aimed to determine if vitamin D deficiency had an influence on lung growth as indicated by a decrease in lung volume. They also wanted to determine if the deficiency altered the mechanical properties of the lung tissue due to changes in the structure of the lung.

The researchers found that airway resistance was significantly higher while lung volume was significantly lower in vitamin D-deficient mice compared to control mice.

The results raise concerns about the potential this deficiency may have on lung health in humans, and in particular, the potential impact that deficiency may have on the susceptibility to obstructive lung disease."

Ready & Able – *Keep your brain active* by Chris

Here's the answers to last month's letters.

Garaged Lock is Cloak and Dagger

Pecan Ripple is Pencil and Paper

They're getting a bit too hard for me. Here's something different which I found easier.

Mix and Match

The letters in each case can be arranged to spell out surnames of actors with the first name of either JOHN or GEORGE.

1. EYAWN
2. DRPAPEP
3. NAZELYB
4. DUIGGLE

5. AVALTROT
6. YEOCLON
7. CHALKIMOV
8. ESLECE

Answers next newsletter.

Dates for your diary

Thursday 24 March Senior's Week Expo Day 10am – 3.30

Thursday 31 March practical session with Physio students at University of Canberra

Thursday 14 April Education Day, Southern Cross Club

Wednesday 18 May Chronic Conditions Self Management Expo – Southern Cross Club, Woden

2011 Australian Capital Territory Inaugural LungNet Education Day Invitation

Date: Thursday 14 April 2011	The Australian Lung Foundation PO Box 847 Lutwyche QLD 4030
Time: 10:00am — 2:00pm	Phone: 07 3251 3600
Venue: Corinna Room 2 Canberra Southern Cross Club 92-96 Corinna Street Woden	Fax: 07 3852 5487
Cost: \$15 (includes lunch and refreshments)	enquiries@lungfoundation.com.au
To book your place please call 1800 654 301 before 7 April 2011	Please alert us to any dietary requirements at time of booking
Program	Please note: Room is air conditioned and may be cool

Program

- 10:00am Registration — tea and coffee**
- 10:30am Welcome from The Australian Lung Foundation**
- 10.45am Fitness to Fly**
Derek Figurski, Laboratory Manager, Department of Respiratory and Sleep Medicine, The Canberra Hospital will provide an insight into what people with lung disease should consider before flying.
- 11.30am Is it COPD or Asthma, or Both?**
Dr John Nicholls, Respiratory Physician will discuss the difference between COPD and Asthma and give an overview of how to optimise their management.
- 12:15pm Lunch, Lucky Door Prize and Raffle Prizes**
- 1:00pm Obstructive Sleep Apnoea**
Dr Carol Huang, Staff Specialist in Respiratory and Sleep Medicine, The Canberra Hospital will explain the diagnoses and treatment options for Obstructive Sleep Apnoea.
- 2:00pm Thank you and Closing**



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