

Breath of LIFE

Lung Information & Friendship for Everyone

Summer 2016-17

Dec-Feb

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People with long term lung conditions, their family & carers

LONG HOT SUMMER BEGINS

To help you party on through WA's long hot summer we've included three special mocktails that would deserve a place on your Christmas or New Year menu. And there's an article on how to keep well hydrated during our hotter months.

We start a new series on respiratory health terms. Here we start with A to C. How many respiratory terms can you think of that start with A, B, or C?

This issue is also full of snippets of respiratory health news from around the world as well as local developments.

L I F E's 2016 Christmas celebration will be on

Wed 7 December from 12 noon

We're making it a BYO plate event this year, held again at the Perkins Building on level 2. More details of our L I F E Christmas party are inside. Please **RSVP** to Sarah Knapp ASAP and let her know what finger food you're planning to bring.





WISHING ALL
A HAPPY CHRISTMAS AND
A HEALTHY AND
PEACEFUL NEW YEAR

E-COPY



Breath of L I F E can be e-mailed to you - or read it online on the L I F E webpage of the Institute for Respiratory Health website.

40% of your membership fee now gets swallowed up in postage.

Change to an e-copy - get a full colour magazine, save trees, and more of your membership fee will support L I F E and the Institute.

 $E_{\underline{life@resphealth.uwa.edu.au}}$

Breath of LIFE Archives

A copy of every issue of Breath of L I F E is lodged with the State Library of WA and the National Library of Australia. Our digital record number (ISSN) now appears in the top right corner of the cover.

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LIFE EVENTS

Recent

At our September meeting Institute for Respiratory Health's **Dr Svetlana Baltic** spoke about the genetic research she and others are doing into lung disease. Along the way she explained chromosomes, genes and DNA.

Rosemary, June, Raema, Sarah, Gaye and Jenni met for spring lunch at Wah Do Chinese restaurant in Tuart Hill. Rosemary made a special effort to celebrate spring in a floral frock, a garment we don't often see her wearing. This necessitated donning rather uncomfortable sandals, instead of the more comfortable joggers she usually wears. What a hero! We all enjoyed ourselves so much we forgot to take pictures.

Our advertised October speaker **Jim Grehan**, was to cover pharmacist medicine reviews. As he was unavailable into the breach stepped Tom Minto, a volunteer with Read Write Now, the WA adult literacy organisation providing free one-to-one tutorials to help people who may have fallen through the cracks. Thank you, Tom, for stepping in at the last minute. If

someone you know would like to be a volunteer tutor or wants some help - W www.read-write-now.org. T 1800 018 802

In November **Ann Canham**, from Advocare, spoke about your rights receiving aged or disability care services, whether at home or in a special facility. Here's Ann (right) talking to L I F E member Gaye



Cruickshank. We still have some brochures available if you missed out. More about Ann's presentation in a future issue.

By the time you read this L I F E will have taken part in **Lung Disease Awareness Day**, organised by Pulmonary Hypertension WA and held at
Whitfords Shopping Centre on Sat 12 November, and coinciding with World
COPD Day. Thanks to June, Raema and Sarah for your help on the day. And
thank you to our sister support group, PHWA for inviting us to share a space.

Coming Events - Christmas Party!

Our summer lunch celebrates Christmas and the coming year. Please join us!

Wednesday 7 December, from 12 noon

Level 2 Interaction Area, Institute for Respiratory Health Perkins Building, QEII Medical campus (Ask us if you need directions)



Eating and drinking

We've decided to cater it ourselves at the lovely venue provided last year by the Institute for Respiratory Health in the Perkins Building. Can you please bring a plate to share? Not too large - or we'll still be at it at Christmas.

L I F E member **Sarah Knapp** will coordinate so we don't bring 15 identical plates. If you haven't already spoken to her about yours, ring her on T 9561 5457 or M 0418 925 715. She's even got email now! (Details below).

Some ideas - dip with veggies and crackers, cheese platter, cold chicken pieces, mini quiches, salad platter, Christmas cake, fruit platter, a drink. Finger food would be easiest.

Giving

We've also decided not to have the Kris Kringle gift exchange this year, but donate what we might spend on a gift, to the Institute for Respiratory Health. We'll have a box for your donation and envelopes. If you'd like a receipt please print your name and address on the envelope.

No charge for lunch - we are catering it ourselves.

Feel free to wear a Christmas hat or other funny head decoration in memory of our dear hat-loving friend, Shirley Shehan, who died in July.

Please RSVP by Monday 5 December to Sarah Knapp T 9561 5457 or M 0418 925 715 E sarahknapp102@gmail.com

RESPIRATORY NEWS

Welcome new members of L I F E and the Institute for Respiratory Health. If you are looking for information about any aspect of your lung health or services that can help, contact Jenni on E life@resphealth.uwa.edu.au
T 9382 4678 or Sal on T 9331 3651 E salhyder1@gmail.com

Big Thank You to Us

L I F E is a small but vibrant group. Our success this year is due to the contributions - big and small - of everyone. Particular mention is due to Sal, June, Raema, Sarah K, Tom, Mary, Jan and Rosemary.



And we're grateful too for the support of Sarah C, Sandy and Dorothy from the Institute for Respiratory Health and the Harry Perkins Institute's Jessica and Meredith, as well as the helpful concierges on the ground floor.

We're patting ourselves on the back for all we have achieved in 2016 and look forward to a modest growth in numbers in 2017.

Please keep them in your thoughts

Some L I F E members and friends will find the Christmas season very toughgoing because of their advanced lung disease. Please keep them in your thoughts this Christmas.

LIFE Birthday Club

Jan Mairorana is Birthday Club Coordinator (and also runs the condolence and get well card service). If you'd like a card from us on your special day let Jan know your birthday either at a meeting, by E janjohn1968@bigpond.com or T 9339 3617. If you know a member who needs cheering up please let Jan know.

Membership renewal

Renewal letters were mailed out with the spring issue of Breath of L I F E. **Final reminder** to renew your Community Membership of the Institute for Respiratory Health (and thereby L I F E) for

2016-17 - for just \$20.

Ways to renew - follow this online link, bring \$20 to the next L I F E meeting, or phone the Institute's **Sarah Cermak** on 6151 0815. If you have not renewed by 15 November this will unfortunately be your final copy of Breath of L I F E.



Farewell To **Lois Gatley** who worked on a range of social justice issues. Her final cause was the stigma directed at people with lung cancer. She was diagnosed with Stage 4 lung cancer in 2013. She tried to set up a group for people with lung cancer but was told by a leading WA cancer organisation that you must have trained counsellors! She also joined the Lung Leaders Network, a group hosted by L I F E, for people leading respiratory support groups in WA.

As part of 2015 'Shine a Light on Lung Cancer' week, her story was shared in the media to highlight the stigma that lung cancer patients can experience. She also raised the issue of the limited research dollars for research into lung cancer. She pointed out that smoking is not the only trigger for lung cancer and noted "people make many life choices that have an impact on their health...let's not stigmatise any lifestyle choices that we make."

Sadly, Lois passed away from her lung cancer in July. A fuller obituary published in the West Australian is here.

Source based on an article by Health Consumers Council Exec Director Pip Brennan, published in Health Consumers Council's Health Matters issue 3 2016

Lung Foundation Australia membership

Besides being a member of Lung Information & Friendship for Everyone, many readers will also be a member of Lung Foundation



Australia. Lung Foundation, is a national organisation, based in Brisbane, which supports research, develops educational fact-sheets, trains health professionals, and undertakes community awareness.

Until now you may have held a (free) Supporter Membership, receiving the Lung Foundation's quarterly newsletter, LungNet News by post or email. The Lung Foundation has decided to replace the free Supporter Membership program with the Love Your Lungs Club, which will cost \$30 a year. This will entitle you to posted copies of LungNetNews, discounted entry fee at the Foundation's lung health education seminars, discount with Air Liquide, and discounts on various resources and other items sold by the Lung Foundation, or companies they partner with.

We understand that for some people being a member of both L I F E (through the Institute for Respiratory Health, at \$20) and the Love Your Lungs Club (at \$30) may be a difficult financial decision. However, we hope you will choose to remain a member of your local support group L I F E and our parent body, the Institute for Respiratory Health.

As a support group L I F E will of course continue to be affiliated with the Lung Foundation, whether or not you decide to become a member of the Love Your Lungs Club.

More

Join the Lung Foundation's Love Your Lungs Club T 1800 654 301 or online here

LUNG LAUGHS

Out shopping

I pulled into the crowded car park at the local shopping centre and rolled down the car windows to make sure my Labrador pup¹ had fresh air.

She was stretched out on the back seat and I wanted to impress upon her that she must remain there. I walked backwards to the curb, pointing my finger at the car and saying emphatically,

"Now you stay. Do you hear me?"

"Stay! Stay!"

The driver of a nearby car, an attractive young woman, gave me a strange look and said, "Why don't you just put it in park!!

Contributed by Mike Watteau, Bentley Bronchiatrix

Last night as I was getting into bed, she said, "You're drunk." I said, "How do you know?" She said, "You live next door."

Tough Class

After retiring from the Canadian Army, a former sergeant took on a new career as a high school teacher. Just before the school year started, he injured his back and had to wear a light plaster cast around the upper part of his body. Fortunately, the cast fit under his shirt and wasn't noticeable when he wore his suit coat.

¹ Not recommended to leave a dog or a small person in a car especially in WA's hot summer!

On the first day of class, he found himself assigned to the toughest students in the school. The smart-ass punks, having already heard the new teacher was a former soldier, were leery of him and he knew they would be testing his discipline in the classroom.

Walking confidently into the rowdy classroom, the new teacher opened the window wide and sat down at his desk. With a strong breeze blowing it made his tie flap. He picked up a stapler and stapled the tie to his chest. Dead silence. The rest of the year went smoothly.

RESPIRATORY RECIPES

In the heat of our West Australian summer some special

Red Santa Punch (serves 10)

1 x 250g punnet strawberries, hulled, washed, halved

½ x 125g punnet raspberries

½ x 150g punnet blueberries

1 ripe kiwifruit, peeled, finely chopped

1 L (4 c) chilled cranberry & raspberry fruit juice (e.g. Ocean Spray brand)

1 L (4 c) lemonade, chilled

500ml (2 c) pineapple juice, chilled

¼ c loosely packed small fresh mint leaves

Divide the strawberries, raspberries, blueberries and kiwifruit evenly among two ice-cube trays. Cover with cold water and place in the freezer for 4 hours or overnight until set.

Combine the fruit juice, lemonade and pineapple juice in a large serving jug or punch bowl. Add the ice cubes and mint, and stir to combine. Serve immediately.

drinks will be a welcome addition to your Christmas menu. It's good to have some non-alcoholic alternatives for children and adults alike. Always important to keep up the fluid intake. (See **Keeping Hydrated** on P16)

Abbreviations

T = Tablespoon

t = teaspoon

c = cup 250ml

L = litre 1,000ml/4 c



Spiced Tea and Fruit Punch (serves 8)

4 Earl Grey tea bags

2 cinnamon sticks

5 whole cloves

6 cardamom pods

3½ cups boiling water

½ c caster sugar

4 c (1 L) tropical fruit juice

2 oranges, thinly sliced

2 cups ice-cubes



Put tea bags, cinnamon, cloves and cardamom into a warmed teapot. Add boiling water and sugar. Stir until sugar has dissolved. Stand for 10 minutes. Strain into a large jug. Add juice to tea mixture. Cover. Refrigerate until cold. Just before serving, add orange slices and ice.

Source: <u>www.taste.com.au</u>

(Non-alcoholic) Ginger Fruit Punch (serves 8)

2 c orange juice, chilled 8 strawberries, hulled, roughly

2 c apple juice, chilled chopped

4 T ginger beer cordial 4 c (1 L) lemonade, chilled

4 T chopped fresh mint leaves Ice cubes, to serve

Variations: Try different juice combinations. Substitute soda water for lemonade to reduce sweetness (and sugar intake). Use ginger beer or ginger ale instead of the lemonade and ginger beer cordial.

SHORTS

ASTHMA DIAGNOSED FROM SALIVA TEST

A new test that can diagnose asthma from a patient's saliva has been developed by researchers in the UK. To diagnose asthma doctors usually measure a person's airflow lung capacity. However lung function tests can be inaccurate and do not always reflect underlying changes associated with asthma. Other tests, such as blood, urine or sputum analysis can be distressing, particularly for younger patients.

Developed by researchers at Loughborough University in collaboration with Nottingham City Hospital, the new test is completely painless and offers a one-stop diagnosis suitable for people of all ages.

To develop the test the research team, led by Professor Colin Creaser from Loughborough's Department of Chemistry and Dr Dominick Shaw from the Respiratory Research Unit at City Hospital, collected saliva from people with asthma and from healthy people. They then performed liquid chromatography-mass spectrometry (LC-MS) analysis on the samples to find so-called metabolic biomarkers.

By detecting the presence and amount of these 'metabolic biomarkers' the new test can diagnose asthma. It also has the potential to pinpoint the severity and progression of the disease.

"Unlike other sampling methods, such as expired breath analysis, saliva can be collected by passive drool from the very young to the very old without causing distress," explains Professor Creaser.



"We were therefore interested to know if techniques for metabolic profiling of saliva to identify physiological stress from exercise -- developed by Loughborough -- could be applied to asthma diagnosis.

"We were very excited to discover that they could."

Before the new test can move to a clinical setting the diagnostic metabolic biomarkers identified need to be validated in further longitudinal studies.

If successful, the approach could be used in early asthma diagnosis as well as part of the ongoing monitoring of people with asthma.

Source Aditya Malkar, Emma Wilson, Tim Harrrison, Dominick Shaw, Colin Creaser. Untargeted metabolic profiling of saliva by liquid chromatography-mass spectrometry for the identification of potential diagnostic biomarkers of asthma. Anal. Methods, 2016; 8 (27): 5407

DOI:10.1039/C6AY00938G Cited inScienceDaily, 16 September 2016

Thanks to Tom Murnane for noticing a report on this in the newspaper.

FLYING WITH OXYGEN

A few respiratory specialists have recently started to charge a fee for checking your medical records and signing medical clearance forms for your air travel with oxygen - if this is not done within a face to face appointment. This new development results from people finding it easier to fly with oxygen, now that portable oxygen concentrators are becoming more available and L I F E's <u>Guide to Flying with Oxygen</u> tells them how to do it. Clearly the increasing piles of medical clearance forms on busy specialists' desk are beginning to eat up a significant amount of time.

FLYING WITH OXYGEN REVISED

L I F E'S Guide to Flying with Oxygen is available from the Institute for Respiratory Health <u>website</u> and details why some people with lung disease need to fly with supplementary oxygen and how to go about taking a flight with oxygen. Each airline has its own policy on passengers' medical needs, so there's plenty of scope for change.

While we cannot hope to keep on top of each airline's policy we recommend you check the airline's policy and procedures afresh each time you fly as there may have been changes since last time.

The guide is currently being reviewed and updated. Your suggestions about how to improve it would be welcome, especially if you have used the guide and have some helpful tips and experience to share.

More Jenni E life@resphealth.uwa.edu.au T 9382 4678

PORTABLE OXYGEN CONCENTRATORS

While speaking of portable oxygen concentrators, there's been a report that in some eastern States, home oxygen providers contracted by the State Government, are supplying portable concentrators instead of bottles for mobile oxygen. They are certainly lighter and more convenient to use when you go out, though portable concentrators are not suitable for everyone's requirements. This has not happened in Western Australia yet - as far as we know.

NO LONG TERM BENEFITS OF OXYGEN FOR PEOPLE WITH COPD & MODERATELY OXYGEN SATURATION

An important 4 year study of supplementary oxygen for people with COPD and only moderately low oxygen saturation was recently published in the New England Journal of Medicine. It showed that long-term supplemental oxygen treatment for people with chronic obstructive pulmonary disease (COPD) results in little or no change in time to death, time to first hospitalisations or significant quality of life improvements for those with moderately low blood oxygen levels.

The findings are based on research examining oxygen treatment outcomes in 738 patients with COPD with moderately low blood oxygen levels at 42 clinical centres in the United States. The study ran from 2009 - 2015.

People who received supplemental oxygen over the course of the study showed no significant differences in rate of hospitalisations, time to death after

In this study, moderate
oxygen deficiency was
defined as having a blood
oxygen saturation
between 89% and 93% at
rest, or a blood oxygen
saturation below 90%
during a 6-minute walk
test.

diagnosis, exercise capacity or quality of life, when compared with patients who did not receive supplemental oxygen.

The results of the study show that most people with moderately low blood oxygen levels do not receive the same benefits from long-term oxygen therapy as people with COPD and severely low blood oxygen levels.

"The benefits of long-term oxygen supplements for COPD patients with severe oxygen deficiency are clear," said Robert Wise, MD, Johns Hopkins University School of Medicine, Baltimore, Maryland. "However, it's never been established what benefits, if any, exist for patients with less severe oxygen deficiency."

To examine the benefits of supplemental oxygen, the researchers studied 2 types of patients with COPD -- those who suffered from moderate oxygen deficiency *while resting*, and those who suffered from moderate oxygen deficiency *only during exercise*.

Some 133 patients had resting oxygen deficiency, 319 had only exercise-induced oxygen deficiency, and 268 had both.

Participants in each of the 2 groups were randomised to receive supplemental oxygen or no supplemental oxygen at the start of the study, and all visited clinics annually for follow-up examinations that included oxygen levels at rest and exercise, oxygen use, respiratory symptoms, and quality of life. All participants also completed telephone interviews biannually and completed mailed questionnaires regarding symptoms and healthcare use at 4 and 16 months.

Of the 738 total patients studied with moderate oxygen deficiency, 368 received supplemental oxygen, and 370 did not. Dr. Wise said the primary outcomes measured -- time to death or time to first hospitalisation -- were essentially the same in both groups. The risk of death in the no-oxygen group was 5.7% per year, compared with 5.2% per year for the oxygen group. Overall, the risk of death or hospitalisation was not different between the two treatment groups.

The researchers also found no significant differences between the oxygen treatment and non-oxygen treatment groups in all hospitalisation rates, COPD exacerbations, self-reported quality of life, lung function, or measures of distance walked.

Even when researchers controlled for variables such as total hours of oxygen use, race, sex, and smoking status, no significant differences in the primary outcomes arose.

"No matter what measure we looked at, it made no apparent difference whether a patient with moderate oxygen deficiency received long-term

oxygen treatments or not," said Dr. Wise. "I think the evidence is strong and shows that some patients may not need those treatments at all."

He cautioned that "we don't want to imply that everyone with COPD now using oxygen should stop; some individual patients may find that they can do more activities or have more effective exercise training if they use oxygen. Every patient should discuss his or her specific needs with his or her health care provider, but the data show, very clearly, that for many COPD patients with moderately low blood oxygen levels, supplemental oxygen won't help you live any longer or keep you out of the hospital."

Sources <u>DG News</u> and <u>Wise R, et al A randomized trial of long-term oxygen for COPD with</u> moderate desaturation New England J Med 2016; DOI: 10.1056/NEJMoa1604344

Comment from Western Australia

Nola Cecins and Sue Jenkins, the pulmonary rehabilitation physiotherapists at Sir Charles Gairdner Hospital, are currently involved in a multi-centre double blinded² randomised controlled trial (NHMRC Funded) that investigates the role of oxygen therapy during supervised exercise training (walking and cycling) for people with COPD. Individuals in this study do not meet the (WA) criteria for the prescription of long term oxygen therapy (LTOT) but have low oxygen saturation levels identified during a 6 minute walk test. The study is aimed at determining whether breathing supplementary oxygen, as compared to air alone, improves exercise capacity in these people. The main outcome measure is the endurance shuttle walking test, a test that is considered to better represent the way people walk in everyday life than the 6 minute walk test. Recruitment for this study is now complete.

Source Jenkins S & Cecins N, personal communication

BREATHING SPACE - NEW ONLINE DISCUSSION GROUP



Lung Foundation Australia is looking at developing some online discussion groups, called Breathing Space, for people living with a respiratory

condition, to complement face-to-face support groups like L I F E. They could suit people unable to attend face-to-face due to distance or disability, and those who have a burning question that cannot wait till the next group meeting. And those who wanted to get a wider range of views on an issue.

² neither the participants or the physiotherapist know whether air or oxygen is being breathed during exercise training

What do you think? Would you take part in one? What features would you look for?

If you'd like to contribute your ideas about the proposed discussion groups contact Ashleigh Ricardo at the Lung Foundation on 1800 654 301 (remember Brisbane is 2 hours ahead) or ashleigh@lungfoundation.com.au

NEW GUIDELINES FOR STOPPING MECHANICAL VENTILATION IN ICU

The American College of Chest Physicians (CHEST) and the American Thoracic Society (ATS) have recently published new guidelines for discontinuing mechanical ventilation in critically ill adults.

The goal of the guideline, published in the American Journal of Respiratory and in Critical Care Medicine, is to help physicians and other healthcare professionals decide when patients with acute respiratory failure can breathe on their own and to provide clinical advice that may increase the chances for successful removal of the breathing tube placed in the trachea or windpipe (extubation).

Studies have shown that at any particular moment about 40% of all patients in the intensive care unit (ICU) are breathing with the help of a mechanical ventilator. However, mechanical ventilation can lead to complications, including infections and injury to the lungs and other organs.

Reducing the length of time patients are on mechanical ventilation decreases the risk of these complications, but premature removal from mechanical ventilation can produce other complications and increase mortality.

"Our guidelines committee wished to update the 2001 CHEST guideline concerning ventilator liberation, but we wished to do so by addressing new clinical questions," said Daniel R. Ouellette, MD, Henry Ford Hospital, Detroit, Michigan. "Our goal was to translate the latest findings into guidelines to improve patient care. These latest guidelines are informed by many studies published in the last 10 to 15 years that look at other factors that critical care clinicians' control that affect a patient's ability to be liberated from the ventilator in a timely manner."

Based on a systematic review of medical studies, the committee's recommendations are for acutely hospitalised adults on mechanical ventilation for more than 24 hours.

"We are not prescribing a specific approach to care for every patient every time," said Timothy Girard, MD, University of Pittsburgh, Pittsburgh, Pennsylvania. "But we are trying to summarise the available evidence in as clear and succinct a way as possible so that clinicians know how it applies to most patients."

Dr. Girard added that with "almost every question we looked at, in one form or another, there is a need for additional studies."

(Note: This policy does not relate to "turning off life support" in the case of a person in the advanced stages of disease and unlikely to recover)

Sources <u>American Thoracic Society</u> <u>ChestNet DG News Doc Guide</u> Guidelines can be read <u>here</u>

CHRONIC RESPIRATORY TELEHEALTH

People with asthma or COPD who live in rural areas now have access to the free Chronic Respiratory Telehealth Service which provides one-on-one support and education to help people better manage their chronic respiratory condition³.



Asthma Foundation WA delivers the telehealth services to people in rural and remote WA in partnership with WA Health, WA Primary Health Alliance and Country WA Primary Health Network. You do not need to have asthma to be eligible, just a long term respiratory condition.

People can access the services from their own home computer or from a computer in a local health centre. The service helps to:

- empower people to work in partnership with their medical team to manage their condition
- become better informed about their condition and medications
- learn how to respond to symptoms, and
- how to manage a flare up or severe attack

Commencing in the Wheatbelt & Great Southern areas of WA initially, the education sessions are delivered by Asthma Foundation WA's Clinical Respiratory and Asthma Educators.

More

Asthma Foundation WA on T 1800 278 462 (ask for Telehealth team) E teleheath@asthmawa.org.au W Asthma Australia

³ Telehealth consultations are already available for country people with cystic fibrosis through Sir Charles Gairdner Hospital,

DEPRESSION AND LUNG CANCER SURVIVAL

Did you know that people with lung cancer and worsening depression do not live as long as those whose depression improves? This study would suggest that there is benefit in checking whether people with lung cancer also have depression and in ensuring they receive treatment.

Worsening depression symptoms are associated with shorter survival for people with lung cancer, particularly in the early stages of disease, according to a study published in the Journal of Clinical Oncology.

Conversely, when depression symptoms lift, survival tends to improve, according to Donald R. Sullivan, MD, Oregon Health and Science University, Portland, Oregon, US.

"Surprisingly, depression remission was associated with a mortality benefit as they had the same mortality as never-depressed patients," he said. "This study cannot prove causation, but it lends support to the idea that surveillance for depression symptoms and treatment for depression could provide significant impact on patient outcomes, perhaps even a mortality benefit."

The researchers followed more than 1,700 patients newly diagnosed with lung cancer between 2003 and 2005 who had completed an 8-item depression assessment at diagnosis and again 12 months later.

Almost 40% (681 people) had depressive symptoms at diagnosis and 14% (105 people) developed new-onset symptoms during treatment.

Overall, those who were depressed at the beginning of the study period were 17% more likely to die during follow-up than those without depressive symptoms.

Compared with the 640 people who never developed depression symptoms, the 105 with new-onset symptoms were 50% more likely to die. Another 254 people whose depression symptoms persisted throughout the study period were 42% more likely to die.

However, those who had depressive symptoms at diagnosis but did not have them 1 year later had a similar risk of death to those who were never depressed. The researchers did not have any data on how or why these patients experienced depression remission.

"We have known since the 1970's that a cancer diagnosis sets off a period of existential plight, a period that lasts about 100 days during which people ask questions of life and death and worry about their health and the meaning of their physical symptoms," commented Mark Lazenby, MD, Yale School of

Nursing, New Haven, Connecticut, who was not involved in the study. "Although from this study we cannot say that treating depression would extend survival, other studies have shown that care aimed at improving the psychosocial well-being, which includes - but is not limited to - detecting and treating depression, does have a survival benefit."

"Clinicians have to do a better job of treating the whole person and not focusing on the disease only," said Dr. Sullivan. "From the patients' perspective, hopefully some of them will take a look at this study and realise the feelings they are experiencing are common and they will feel empowered to advocate for themselves and ask their clinicians for help or resources when they need it."

Sources Sullivan DR, Forsberg CW, Ganzini L, et al. <u>Longitudinal changes in depression symptoms and survival among patients with lung cancer: a national cohort assessment.</u> J Clin Oncol. 2016 Oct 3. doi: 10.1200/JC0.2016.66.8459

<u>DGNews</u>

KEEPING HYDRATED THIS SUMMER

Having enough liquid is important any time of the year, but it's critical in Western Australia's long hot summers. And it's vital for people with chronic respiratory disease.

Dehydration in older people is often hard for health professionals to detect. In younger people the usual signs of dehydration include thirst and a reduction in skin elasticity, but these may be absent in older people. Instead, possible dehydration signs in older people are If your doctor asks you to follow a fluid restricted diet for your kidney or heart disease you need to follow the doctor's guidelines.

lethargy, confusion, constipation, fever with no obvious cause, dizziness and falls.

Insufficient fluid intake can lead to bladder infections, constipation, allergy attacks, thicker mucus leading to a flare up or respiratory infection, thicker blood leading to a heart attack.

During a heat wave, the most important thing is staying hydrated. And, people who have a heart condition, are older than 50, or are overweight may have to take extra precautions. Our bodies are about 75 percent water and blood is nearly 80 percent water, so it is necessary to replenish what is lost every day. When water is not replaced, blood thickens, forcing the heart to work harder and raising the risk of heart attack. Staying hydrated, then, is

essential for heart function, but it also helps with alertness, controlling appetite, and generally improving all activity.



The dehydration danger zone, according to the American Heart Association, is when the temperature is over 20C and the humidity is above 70%. Sip water frequently and drink before, during, and after vigorous activity.

Try to drink at least 1.5 litres or 6 cups of fluid a day to maintain a healthy fluid balance. All drinks including tea and coffee count as part of your 1.5L - **except alcoholic drinks** which are dehydrating. Some watery fruits, like orange or watermelon, also help hydrate your body.

While in the dehydration zone, the following suggestions may help.

- 1. Keep a large water bottle handy to encourage you to drink water wherever and whenever.
- 2. Be sure to eat fruit and vegetables, which are great sources of water, *daily*, not only to stay hydrated, but also to maintain optimal health.
- 3. Have a glass of water *before* each meal. It can prevent over-eating as well as hydrating your body.
- 4. After each trip to the toilet, drink a glass of water to replenish your fluids.
- 5. Set reminders on your phone, watch, or e-mail to drink every hour.
- 6. Add a slice of lemon, lime, and/or mint leaves to your water to give it flavour without adding extra calories.

Energy drinks are not recommended because they contain large amounts of sugar and stimulants, and so can be counterproductive to maintaining fluid balance. In some instances, they may even be dangerous; researchers found that brands with caffeine and the amino acid taurine significantly raise blood pressure and heart rate.

There's no getting around it. Drinking water is always best.

How do I know if I'm properly hydrated?

To measure your hydration status, examine the colour of your urine. If you're hydrated, your urine will appear to be a very pale yellow and almost clear (keep in mind that the water in the toilet bowl will dilute the colour). If your urine in the toilet bowl is much darker -like the colour of tea or apple juice - your body is dehydrated.

Sadly, many people are chronically dehydrated and don't even know it. Because they have ignored their body's thirst signals for so long, they don't easily recognise them and may confuse thirst for hunger.



Constant snacking, and especially sugar cravings, can be a hidden sign of a dehydration imbalance.

Another sign is allergies. With dehydration, histamine levels can increase and the immune system can become imbalanced, creating the perfect storm for dust, pollen, mould, and animal allergies to show up.

Digestive ailments, especially acid reflux and constipation, are another, lesser known, sign of chronic dehydration. Hydration is essential to keep all functions of the digestive tract running smoothly.

Chronic dehydration may also reduce blood supply and manifest in the brain as mental and emotional imbalances and in extreme cases, temporary mental impairment. The brain relies on a relatively large portion of the body's blood supply.

Ongoing stress also increases dehydration in the body with high levels of circulating stress hormones, so dehydration and stress can be a vicious cycle. Stress also causes the body to get rid of fluids. Staying hydrated and finding healthy ways to relieve stress can help break this cycle.

Heat Related Illnesses

During periods of extreme temperatures, people are susceptible to three different heat-related conditions.

Heat cramps are muscular pains and spasms that usually occur in the legs or abdomen (the "stitch"). Heat cramps are often an early sign that the body is having trouble with the heat. The American Red Cross suggests a person move somewhere cooler when you have cramps. When you are in a comfortable position, lightly stretch the affected muscle and gently massage the area. It is best to drink an electrolyte-containing fluid, such as a

commercial sports drink, fruit juice, or milk, but if such beverages are not available, water. A person suffering heat cramps should not take salt tablets.

Heat exhaustion is a more severe condition than heat cramps. It often affects athletes, firefighters, construction workers, and factory workers but it may also impact anyone wearing heavy clothing in a hot, humid environment. Signs of heat exhaustion include cool, moist, pale, ashen, or flushed skin, headache, nausea, dizziness, weakness, and exhaustion.

If someone is suffering heat exhaustion they should obviously be moved to a cooler place with circulating air. Help them remove or loosen as much clothing as possible and apply cool, wet cloths or towels to the skin. Fanning or spraying the person with water also can help. If the person is conscious, give small amounts of a cool fluid, such as a commercial sports drink or fruit juice, to restore fluids and electrolytes. Milk or water may also be given. Give about half a cup of fluid every 15 minutes. If the person's condition does not improve, or they refuse water, have a change in consciousness, or vomit, call 000.

Finally, **heat stroke** is a life-threatening condition that develops when the systems of the body are overwhelmed by heat and begin to stop functioning. Signs of heat stroke include extremely high body temperature, red skin that may be dry or moist, changes in consciousness, rapid and weak pulse, vomiting, and seizures. Do not hesitate; call 000 immediately. While waiting for assistance, immerse the person up to the neck in cold water if possible; if not, douse or spray the person with cold water or cover the person with bags of ice. The American Red Cross suggests you apply rapid cooling methods for 20 minutes or until the person's condition improves.

Sources Medical Daily National Prescribing Service of Australia WebMD

RESPIRATORY A TO Z



In this and coming issues we'll travel from A to Z providing the meaning of common respiratory health terms. Terms you might come across in a brochure or website or maybe out of a doctor's mouth. (Don't be afraid of asking what they mean by it.) Meanwhile our A to Z in Respiratory Health will provide you with all the technical terms you wanted to know explained in layperson's terms.

First up, it's A to C.

If there's a medical term you'd especially like to have clearly explained, let us know! Contact life@resphealth.uwa.edu.au or T 9382 4678 M 0413 499 701.

ACBT – Active Cycle of Breathing Technique is a breathing exercise which helps people with a lot of mucus to get the mucus out. Very handy for people with bronchiectasis, chronic bronchitis or cystic fibrosis. It has more or less superseded patting you on the back.

What's more you can do it yourself! Read more <u>here</u> or ask a respiratory physiotherapist.

Acute – (of an illness or disease) either starting abruptly or short term, getting worse rapidly, and in need of urgent care. "Acute" is a measure of the time scale of a disease, contrasting with "sub-acute" and "chronic."

Airways – the network of tubes in your lungs from the widest one in your throat to the narrowest ones leading to the alveoli, or air sacs, at their ends.

Airway clearance – ways of keeping the airways free of obstruction to improve ventilation and gas exchange. Mucus is often the culprit. It narrows the airways, and prevents oxygen and carbon dioxide carrying out their gas exchange duties in your lungs. There are normal ways the body does this, including hair cells (cilia), breathing and coughing. If these are not working effectively you might need to use special techniques to improving mucus clearance. A variety of techniques is available, including

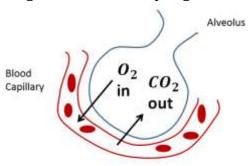
- the active cycle of breathing techniques, a cycle of breathing control, thoracic expansion exercises and the forced expiration technique)
- conventional chest physiotherapy (defined as any combination of gravity-assisted drainage, percussion, vibrations and directed coughing / huffing)
- positive expiratory pressure (PEP) therapy,
- devices that combine positive expiratory pressure and an oscillatory vibration of the air within the airways (Flutter® or Acapella®) and
- autogenic drainage, a technique that is based on the principle of achieving the highest possible airflow in different generations of bronchi, while preventing early airway closure, via the use of controlled tidal breathing.
- Short-acting inhaled bronchodilators prior to treatment may assist with sputum clearance in some patients.

Read more in the online <u>Little Blog of Phlegm</u>

Allergy - a damaging immune response in which your body reacts to a substance that it has become hypersensitive to (especially a particular food, pollen, fur, or dust).

Altitude Simulation Test - can determine whether you need supplementary oxygen when traveling by air or travelling to higher altitude, such as Addis Ababa in Ethiopia which has about the same availability of oxygen as travelling in a jet liner (8,000 feet or 2,500m).

Alveoli (plural of alveolus, "**AL**-VEE-OH-LEE") - tiny elastic air sacs of the lungs which allow rapid gas exchange, where carbon dioxide passes from



blood in capillaries on the lungs across the very thin layer of the alveolus into the air and can be breathed out, while at the same time oxygen molecules pass from the air into the blood in the capillaries. Here is an image to explain this. However the scale on which this happens is amazing. A typical pair of human lungs

contain about 700 million alveoli, producing 70 square metres of surface area. Each alveolus is wrapped in a fine mesh of capillaries covering about 70% of its area. The diameter of an alveolus in an adult is one fifth of a millimetre, less that the thickness of a human hair! Hence **alveolitis**, the inflammation or swelling of the alveoli walls.

ARDS – Acute Respiratory Distress Syndrome occurs when fluid builds up inside the alveoli in your lungs. More fluid in your lungs means less oxygen can reach your bloodstream. This deprives your organs of the oxygen they need to function. It typically occurs in people who are already critically ill or who have significant injuries. Severe shortness of breath — the main symptom of ARDS — usually develops within a few hours to a few days after the original disease or trauma.

Many people who develop ARDS don't survive. The risk of death increases with age and severity of illness. Of the people who do survive ARDS, some recover completely while others experience lasting damage to their lungs. Your editor is one of the lucky ones to have survived ARDS, albeit with lung damage.

Asbestosis (ASS-BEST-**OH**-SIS) - a long term lung disease resulting from breathing in asbestos particles, and marked by severe fibrosis (or scarring) of the lung tissue and a high risk of mesothelioma (cancer of the pleura or lining of the chest cavity around), causing shortness of breath. It may not be diagnosed until decades after exposure. Exposure can be as little as a couple of fibres encountered in the course of a job, home renovation, or laundering clothes of someone who was exposed to asbestos. More information from the <u>Asbestos Diseases Society of Australia</u>, based here in Perth.

Asthma (ASS-MAH) – a long term respiratory condition marked by attacks of spasm in the bronchi (or larger airways) of the lungs, causing difficulty in breathing, coughing, wheezing and chest tightness. It is usually connected to an allergic reaction or other forms of hypersensitivity.

Bacteria (singular - bacterium) - microscopic living organisms, usually one-celled, that can be found everywhere. They can be dangerous, such as when they cause infection, or beneficial, as in the process of fermentation (such as in wine, cheese or yoghurt) and that of decomposition (such as in cemeteries or compost bins). They may living independently, or be parasitic, dependent on another organism. Common bacterial infections in people with chronic lung conditions include: Staphylococcus aureus, Pneumoncoccus, Pseudomonas aeruginosa, Streptococcus pneumoniae, Haemophilus species, Staphylococcus aureus and Mycobacterium tuberculosis. Bacterial infections are not nearly as common as viral infections. Pneumovax, the vaccine against pneumoniae, protects people against a number strains of Streptococcus pneumoniae.

Benign – not having harmful effects, such as a tumour that does not spread. Not cancer.

Bromhexine hydrochloride – a drug in tablet (Bisolvon Chesty tablets) or liquid form which can thin sticky mucus, making it easier to cough up.

Bronchus (**BRONG**-KUS) (plural bronchi) – the two wider tubes that branch from your wind-pipe or trachea and lead into the lungs.

Bronchial asthma - old term for asthma

Bronchial catarrh – an old term for an acute inflammatory condition, involving the mucous membranes lining the bronchi, often extending to the mucous membrane of the trachea and sinuses. A common cause for this disease was thought to be exposure to a cold, moist atmosphere.

Bronchiectasis (BRONG-KEE-**ECK**-TASS-ISS) - abnormal widening of the bronchi or their branches, causing the risk of infection in the pockets created. This is similar to, but slightly different from, bronchomalacia (see below).

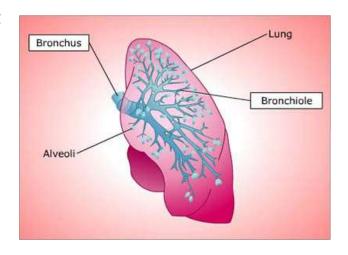
Bronchioles (**BRONG**-KEE- OLES) – any of the tiny airway tubes dividing off from the larger bronchus

Bronchiolitis - a common lung infection in young children and infants. It causes inflammation and congestion in the small airways (bronchioles) of the lungs and is almost always caused by a virus, often in winter.

The early symptoms of bronchiolitis are similar to those of a common cold but then it progresses to coughing, wheezing and sometimes difficulty breathing. Symptoms can last for several days to weeks, even a month. Most children get better with care at home. A very small percentage of children require hospitalisation.

Bronchiolitis obliterans - a long term respiratory condition involving the obstruction of the smallest airways of the lungs (bronchioles) due to inflammation. Symptoms include a dry cough, shortness of breath, wheezing, and feeling tired.

Bronchitis - inflammation of the lining of your bronchial tubes (bronchi), which carry air to and



from your lungs. People who have bronchitis often cough up thickened mucus, which can be discoloured. Bronchitis may be either acute (short term) or chronic (long term).

Bronchodilator - a drug that causes widening or opening up of the bronchi, for example, inhalers to alleviate asthma or COPD. Also called **relievers**, as they relieve immediate symptoms. They can be divided into short acting and long acting bronchodilators. Examples of bronchodilator inhalers are: Airomir, Ventolin, Asmol.

Bronchomalacia (**BRONG**-KOH-MAL-**AY**-SHAH) - a term for weak cartilage in the walls of the bronchi, often in children under six months. Bronchomalacia means 'floppiness' of some part of the bronchi. Symptoms include noisy breathing and/or wheezing. When people with bronchomalacia breathe out their bronchi tend to collapse.

Bronchoscopy – a procedure that allows your doctor to examine your airways. Your doctor will thread an instrument called a bronchoscope through your nose and down your throat to reach your lungs. The bronchoscope is made of a flexible fibre-optic material and has a light source and a viewing device or camera on the end. You would probably be given a sedative to relax and some anaesthetic will be sprayed in your nose and throat. So you would usually be awake but drowsy.

A bronchoscopy can be used to diagnose

- lung disease
- tumour
- chronic cough
- infection

Your doctor may order a bronchoscopy if you have an abnormal chest X-ray or CT scan that shows evidence of an infection, a tumour or a collapsed lung.

The test is also sometimes used as a treatment tool. For example, a bronchoscopy can allow your doctor to deliver medication right to your lungs or remove an object that's caught in your airways, like a piece of food.

Carbon dioxide (CO_2) - a colourless, odourless, incombustible gas present in the atmosphere and formed during respiration, usually obtained from coal, coke, or natural gas by combustion, from carbohydrates by fermentation, by reaction of acid with limestone or other carbonates, or naturally from springs. CO_2 is used extensively in industry as dry ice, or carbon dioxide snow in fizzy drinks, fire extinguishers, etc.

Chest CT, X-ray and MRI – ways of obtaining pictures of your lungs to help diagnose or monitor lung conditions. X-rays and CT (computed tomography) scans use very small doses of radiation while an MRI (Magnetic Resonance Imaging) uses radio waves, magnets and a computer. In a CT scan a series of cross-sectional images of the lungs to create very detailed images of the lungs. A contrast dye may be injected into a vein in an MRI or a CT scan to obtain more detailed pictures.

Chest physiotherapy -

the treatments generally carried out by physiotherapists (physical therapists and respiratory therapists in US), which improves breathing by helping remove mucus from a person's breathing passages. Other terms used in Australia include respiratory or



cardiothoracic physiotherapy.

Chromosome - a thread-like structure of nucleic acids and protein found in the nucleus of most living cells, carrying genetic information in the form of genes.

Chronic – long term, such as a condition for which there is no permanent cure

Cold or the common cold, also called viral rhinitis (RINE-EYE-TIS), is one of the most common infectious diseases in humans. The infection is usually mild

and improves without treatment. Because of the large number of people who get the common cold, this illness results in nearly 26 million days of missed school and 23 million days of absence from work every year in the United States. The average American has 1 to 3 colds per year.

The common cold is an upper respiratory infection that is caused by several families of viruses. Within these virus families, more than 200 specific viruses that can cause the common cold have been identified. The virus family that causes the most colds is called rhinovirus. Rhinoviruses cause up to 40% of colds, and this virus family has at least 100 distinct virus types in its group. Other important upper respiratory virus families are named coronavirus, adenovirus and respiratory syncytial virus. Since so many viruses can cause cold symptoms, development of a vaccine for the common cold has not been possible.

Rhinoviruses cause most colds in the early fall and spring. Other viruses tend to cause winter colds and their symptoms can be more debilitating. There is no evidence that going out in cold or rainy weather makes you more likely to catch a cold.

Congestive heart failure – (also called chronic heart failure or congestive cardiac failure), is a long term condition in which the heart muscle is weakened and can't pump as well as it normally does. The main pumping chambers of the heart (the ventricles) become larger or thicker, and either can't contract (squeeze) or can't relax as well as they should. This triggers fluid retention, particularly in the lungs, legs and abdomen

COPD – Chronic Obstructive Pulmonary Disease - is a serious, progressive and disabling chronic airways condition that limits airflow in the lungs. It includes emphysema and chronic bronchitis. People with COPD are often short of breath and may have frequent coughing. The condition mainly seen in older people and its main cause is active smoking or exposure to smoking, although some people with COPD have never smoked in their lives.

Cor Pulmonale - abnormal enlargement of the right side of the heart as a result of disease of the lungs or the blood vessels in the lungs. Also called **right heart failure**.

Corticosteroid - any of a group of steroid hormones produced in the adrenal cortex (a gland on top of the kidneys) or made synthetically. There are two kinds: glucocorticoids and mineralocorticoids. They have various metabolic functions and some are used to treat inflammation. Examples of synthetic corticosteroids used to treat chronic lung conditions include inhalers like Qvar, Pulmocort, Flixotide, Alvesco, and tablets like Prednisolone

CPAP -Continuous Positive Airway Pressure - is a treatment that uses mild air pressure to keep the airways open. CPAP typically is used by people who have breathing problems, such as sleep apnoea. CPAP also may be used to treat pre-term infants whose lungs have not fully developed.

Croup - an infection of the throat (larynx) and windpipe (trachea) that results in noisy breathing and a harsh, barking cough. Most children who have croup are under five years old. Some older children (aged between three and eight years) may develop occasional croup. Children with croup usually have an illness like a cold first – a runny nose, cough and slight temperature. Then the child wakes during the night with a barking cough and difficulty breathing. This can last a couple of hours and reappear for the next couple of nights.

Children are small, so their airway is narrow. When infection causes swelling of the lining of the airway, it becomes even narrower making it difficult for the child to breathe. This happens particularly when the air is cold, such as at night-time.

Cystic Fibrosis (CF) - primarily affects the lungs and digestive system because of a malfunction in the exocrine system, responsible for producing saliva, sweat, tears and mucus. It is a genetic condition caused by a recessive autosomal gene, occurring equally in males and females, must be inherited from both parents and can skip a generation.

There is currently no cure. People with CF develop an abnormal amount of excessively thick and sticky mucus within the lungs, airways and the digestive system. The mucus causes impairment of the digestive functions of the pancreas and traps bacteria in the lungs resulting in recurrent infections which lead to irreversible damage. Lung failure is the major cause of death for someone with CF.

From birth, a person with CF undergoes constant medical treatments and physiotherapy.

In Australia, one in 2,500 babies are born with CF. On average one in 25 people carry the CF gene - most of whom are unaware that they are carriers. Because carriers of CF are unaffected (and therefore show no symptoms) it is hard for them to appreciate that CF may be a real risk. Anyone could be a carrier and wouldn't know. It is routinely screened for by heel prick test in new born babies, so if necessary, treatment can begin as soon as possible.

HOW CAN I GIVE BACK?

A New Year Resolution? Doing something that helps make the world a better place, feels good too. Here are five things you can do, no matter how advanced your condition.

1. **Volunteer** for L I F E - help our L I F E group. Or another community organisation near you.



- 2. **Join the LIFE working bee** which helps the Institute for Respiratory Health's Clinical Trials Unit. Just speak to Sal at the next LIFE meeting or call her T 9331 3651.
- 3. **Register with the Clinical Trials Unit** of the Institute for Respiratory Health to take part in the trial of a new respiratory medication. Call Leisa T 6457 4482 E leisa.wilson@resphealth.uwa.edu.au.
- 4. **Become a simulated patient** at the University of Western Australia's School of Medicine and help train doctors of the future. Call the Doctor of Medicine Team T 6488 7528 E mdpatients-fmdhs@uwa.edu.au
- 5. **Volunteer to be a research subject** in a project advertised here or in your local paper.
- 6. **Donate** to the work of the Institute for Respiratory Health. Call 6457 3198. Mention the Institute's important research into lung disease to friends and relatives who also might be interested to make a donation.

INSTITUTE FOR RESPIRATORY HEALTH

The <u>Institute for Respiratory Health</u> (formerly LIWA) is a collaborative research organisation.

It aims to improve the life of Australians living with respiratory conditions by bringing together world class researchers and dedicated clinicians to investigate, diagnose, treat and prevent respiratory conditions.



The Institute conducts and fosters innovative basic and clinical research and translates their work into improved treatments for people with respiratory conditions in Australia.

The Institute includes a Clinical Trials Unit and the community support group – L I F E for people living with chronic respiratory conditions.

<u>Membership</u> is open to community members, researchers, health professionals and research students.

<u>Your tax deductible donation to the Institute</u> or bequest supports respiratory research.

About Lung Information & Friendship for Everyone (L I F E)

L I F E - a group for anyone with a chronic lung condition, their family and carers. It's run by, and for, people with chronic lung conditions. Started in 1992 as LISA, our name changed to LIFE in 2009. LIFE is the community support group of the Institute for Respiratory Health. More about the Institute on page 27.

L I F E is also a member of **Lung Foundation Australia**'s network of respiratory self help groups T 1800 654 301. L I F E is thankful for the support of the Department of Respiratory Medicine at Sir Charles Gairdner Hospital.



Breath of LIFE magazine

Our magazine is published 4 times a year - March, June, September & December.

It is distributed to all community members of the Institute, including L I F E members. Send your contributions to the editor, Jenni Ibrahim E life@resphealth.uwa.edu.au 7 Ruislip St, W. Leederville, WA 6007. Read it online. ISSN 2207-0028 (Digital version)

LIFE Membership

Join **L I F E** by becoming a Community Member of the Institute. Come to a meeting or contact the Institute T 6457 3198 or E <u>life@resphealth.uwa.edu.au</u>. Membership fee of \$20 a year (incl. GST) is due each 1 July. Members' help and ideas are always welcome - magazine, speakers, social events. Please tell us if you change address.

Seeking information about your lung condition and how to cope with it?

Like to meet others in a similar situation?

Join L I F E!

Contacts

T 9382 4678 **Phone** Coordinator **Jenni Ibrahim** M 0413 499 701 **Postal**

L I F E c/- Institute for Respiratory Health, Ground Floor E Block, S C G H

Hospital Ave, Nedlands WA 6009

Email life@resphealth.uwa.edu.au Web LIFE on the Institute website LIFE on Facebook

Meetings

1st Wednesday of every month, February to November from 12 - 2.30pm. Speaker starts at 1.00pm.

Level 6 Meeting Room 612A, Perkins Institute Building, Queen Elizabeth II Medical Campus, **Nedlands.** Wheelchair and gopher accessible. Light refreshments. If you can, please bring a plate to share. (We no longer meet at the Respiratory Library, Department of Respiratory Medicine, 1st floor, B Block.)

COMING UP

Wed 7 Dec	L I F E Christmas party	Level 2, Perkins Building. Details inside. RSVP
Jan 2017	No meeting	
Wed 1 Feb	Meeting (no speaker)	Catch up after the Christmas break over a cuppa
Wed 1 Mar	Meeting with speaker TBA	
XX Mar	Secret Autumn café lunch	Join our mystery journey to a secret destination
Wed 5 Apr	Meeting with speaker TBA	
Wed 3 May	Meeting with speaker TBA	

