

SPECIAL FEATURE:
"PATIENT'S CHARTER"
FOR PEOPLE WITH ASTHMA

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YOUR
SAY!

FILL OUT OUR
QUESTIONNAIRE

YOU WILL FIND
IT BETWEEN
PAGES 6 & 7

REDUCING DUST MITE
POPULATION IN THE HOME

THE OTHER LUNG DISEASE

ANYONE FOR WINE AND CHEESE?

WOW! A FIRST FOR NEW ZEALAND
HEALTH BENEFITS SHOWN FROM THE MIGHTY
GREEN-LIPPED MUSSEL

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April 2005



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editorial

"You can have any colour you like as long as it's black?"

These were Henry Ford's words describing the limited colour choices on offer when he made the first cars available to the public. The most important priority was to make cars available and consumer choice was not high on the agenda. These days we appear to have so many choices we can't make a decision – or so it seems...

Imagine looking for your new car. You enter the Holden showroom excited at the prospect but every car you can see is a blue Honda City. Scratching your head you approach a salesman and ask why. "Oh we can get them much cheaper if we only stock blue Honda City's", its got the same engine as the Holden Commodore. The body's kind of similar, only difference really is it uses diesel instead of 96 petrol."

Wondering if you are being secretly filmed for another irritating reality TV-show, you move on to the next showroom. Same thing, blue Honda City's everywhere and the same story from the dealer. After several dealerships you resort to the Trade and Exchange. On opening you're faced with endless advertisements for blue Honda City's – same story, Holden engine, drinks diesel, same cheap price.

You discover through your contacts the Honda's have been given priority assessment by the independent motor vehicle inspection unit based on cost savings to the public. Not only that, the AA has struck a deal with Honda to bring them into New Zealand and are reaping the benefit since the licensing authority for registered dealerships has dictated that to sell cars in New Zealand you must only sell certified blue Honda City's.

On this basis other car suppliers have packed up and gone elsewhere so if you want a car it must be a blue Honda City with a Commodore engine that drinks diesel.

So what's going on? – sole supply!

This seems a ridiculous situation the public would simply not tolerate which of course it is. Only problem is we are prepared to accept it when it comes to medication – more specifically asthma relievers. From 1st July there is likely to be only one reliever puffer available in New Zealand through a sole supply contract between

government drug buying agency PHARMAC and Asthma and Respiratory Foundation subsidiary Airflow products¹.

Sole supply basically means Airflow will become the only supplier of reliever puffers (Metered Dose Inhalers) from July 1st – at the moment there are three alternatives. They are all subsidised by PHARMAC on behalf of the public but subsidy is to be stopped for all but the Airflow one.

The benefit is quite simply cost saving, with only one supplier of puffers (MDI's) is a guaranteed monopoly they can afford to push the price lower as they know there are no challengers competing for a slice of the business.

It is a policy PHARMAC has used to great effect and Government has applauded but it also comes with its problems. Historically there have been supply problems with public needs surpassing expectation and sole suppliers unable to meet demand. This has left patients with a prescription they are unable to fill at the pharmacy, last year for around 30 different drugs².

The other major issue is the reduction of choice. Any medicine comes with its risks and benefits and is unlikely to work for every individual – a fact not commonly known or grasped by everyone.

People are complex beings and one medicine doesn't do the same for every one of us. This doesn't mean the Airflow puffer won't work. It contains the same active ingredient, looks the same and comes from a reputable manufacturer. Most people are unlikely to notice any change but a few might because of changes to the propellant used, or just because.

So where does the problem lie? The problem comes with the lack of alternatives. If you can't use the new puffer for whatever reason there may be no other MDI available. Current suppliers of reliever puffers are unlikely to maintain supplies on the off chance that you can't use the sole supply puffer so you may not even have the option to buy an alternative in New Zealand. Your only choice will be to use the only other reliever available Bricanyl – a different medication in a different inhaler device.

Sole supply not only reduces your choice of inhaler, by decreasing prices existing suppliers are forced to cut costs meaning you may also lose any additional support. In this case it is

extremely likely we will also lose helpful devices like the Haileraid, the Volumatic spacer for use with relievers and placebo inhalers used for education purposes.

On this occasion another interesting body that deserves more scrutiny is the supplier themselves - a subsidiary of a self-proclaimed patient advocacy group. Reducing choices and treatment alternatives in exchange for profit is not what you would normally expect from a group established to help patients – some might say it was a glaring conflict of interest, or an area where self-interest has overtaken patient interest.

In 2002 this group also imported a CFC-containing preventer promising to change to a CFC-free one within a year – again the excuse for doing so was cost savings. Over two years later we are still waiting for the CFC-free alternative and in the interim have unnecessarily pumped CFC's into the atmosphere from tens of thousands of inhalers. Despite our clean-green image we are probably one of the only countries blatantly disregarding the Montreal protocol and its principles for exemption since several alternatives exist now at the same cost.

So what can you do about it? Not much, the decision has already been made for you. Government bodies believe we value cost savings much higher than choice or the environment and until we tell them different – you can have any reliever puffer you like as long as it's the blue sole supply one.



Gerry Hanna
Executive Director

**ASTHMA NEW ZEALAND
– THE LUNG ASSOCIATION
– HELPING PEOPLE WITH ASTHMA
LEAD A BETTER QUALITY OF LIFE**

REFERENCES

- 1) www.pharmac.govt.nz
- 2) <http://tvnz.co.nz/news/health/story/skin/455730%3fformat=html>

Have your say!
Fill out our
questionnaire.
You'll find it
between
pages 6 & 7.

"Patient Charter" for people with asthma

ASTHMA NEW ZEALAND – THE LUNG ASSOCIATION

As a person with asthma or parent/caregiver of a person with asthma I have a right to:

1. High quality choice of treatment, care and information from asthma trained health professionals who practice 'best practice' and keep informed on the latest evidence based research on asthma.
2. Access to a doctor or nurse, the nurse to have completed recognised asthma training, at either my own GP practice or in my local area.
3. Have my asthma quickly and accurately diagnosed with timely referral to a respiratory specialist if necessary.
4. A full and open discussion with my nurse or doctor about the best and most appropriate asthma treatments for me, including side effects, regardless of the cost of the treatment.
5. Be shown how to use the devices needed to keep my asthma under control (e.g. inhalers and spacers) by a health professional able to demonstrate knowledge and proficiency with the devices.
6. Discuss and agree my own personal asthma management plan with my doctor or nurse so that I can take control of my asthma.
7. Have my asthma reviewed at least once a year (more frequently if I have severe asthma), at a time convenient to me, or in the case of my children, every six months.
8. Be referred to a respiratory specialist if my asthma is not well controlled and is affecting my quality of life.
9. Have follow up appointments made with my practice nurse/doctor before I am discharged from hospital or leave an Accident and Medical Centre
10. If I have brittle asthma I need to be assured that, 'all health professionals with whom I may come in contact are aware of the serious risk I face when my asthma symptoms are deteriorating'.

Are you one of the thousands of New Zealanders who think sleepless nights due to the symptoms of asthma, or lying awake listening to your child coughing, days off work or school and even difficulty walking up stairs are 'normal' for someone with asthma? Have you ever wondered if the quality of your daily life could be improved?

Recent advances in the health profession's knowledge and understanding on the treatment of asthma e.g. the introduction of combination therapy mean you could enjoy a life similar to the Kiwi who doesn't have asthma.

In considering the burden that asthma places on those who have asthma or on family/whanau who have a member of the family with asthma, Asthma New Zealand - The Lung Association decided to adopt the concept of a charter, which will provide parameters for society on what to expect from the Health Service.

Why an asthma charter?

Because of the approach successive governments of New Zealand have taken on respiratory conditions (asthma is not presently considered a health priority on the Ministry of Health's list of priority public health objectives even though 600,000 people in New Zealand have asthma). Asthma New Zealand – The Lung Association (ANZ) decided to develop a patient charter. The charter needed to provide accountability on the health service and lay down the patient's rights.

The aim of charter is to ensure that everyone who works within the health service and the government give asthma the priority it deserves, and help to promote improvements in the quality of care received from the Health Service to the people of New Zealand who have asthma.

What can I do?

Use this charter as a checklist, to ensure you are receiving the standard of care to which you are entitled...with the help of Asthma New Zealand – The Lung Association.

- Start by:
- Discussing the charter with your asthma nurse or GP at an asthma appointment

- Phone your local asthma society to speak to an asthma nurse educator.
- Act with the help of your local asthma society or Asthma New Zealand to ensure that the government and the health service give asthma the priority it merits.

There are easy ways you can influence change within your area, e.g.

- Write to your local Primary Health Organisation (PHO)
- Write to your local member of parliament
- Contact the government (Ministry of Health, Minister for Health) for one free consultation per year for your asthma
- Contact the government (PHARMAC, Ministry of Health, Minister for Health) to provide access to all available medications for asthma
- Contact the government to encourage inclusion of a representative(s) of the public on asthma national bodies
- Contact your local asthma society to give your support for change

(Adapted from Your asthma charter developed by the National Asthma Campaign of United Kingdom.)



REDUCING DUST MITE POPULATION WITHIN THE HOME

BY RICHARD THOROGOOD MI BIOL.

Following on from the article *Effective Asthma Management by Environmental Control in the previous issue of this journal*⁽¹⁾ this article takes a closer look at ways of reducing dust mite population in the home.

Ever since the link between dust mites and asthma was established in the 1960s, scientists have been searching for ways of killing these microscopic but surprisingly hardy creatures. Methods have been devised that range from the highly impractical (liquid nitrogen at -196°C)

to the downright dangerous (the cancer-linked chemical Lindane) but ways of controlling dust mites that are both effective and practical for use in the home have been harder to find.

The New Zealand climate and the way in which we live combine to provide a near perfect habitat for dust mites. Most parts of our country experience average temperatures and humidity within the mites' optimum range and our comfortable homes with carpets and soft furnishings provide a perfect environment to trap dust, creating an ideal habitat for dust mites to thrive. Their main source of food are the tiny particles of skin that we all continually shed. These are not the large flakes that fall off our bodies after a bout of sun-burn but the tiny individual cells that are being constantly replaced

by new skin cells in the natural process of skin renewal. Highest numbers of dust mites are generally found where the highest concentrations of these skin particles are found, 'THE BED'. This is definitely the most highly populated area of the house as we spend about a third of our lives there – shedding skin! Carpet, soft furnishings and soft toys in the bedroom and lounge will also accumulate skin particles and potentially attract large dust mite populations.

There is no single way of controlling dust mite populations in the home and the most effective approach is to undertake a series of measures including minimising their food supply, removal of their habitat and killing the mites by physical or chemical methods.

REDUCING DUST MITE POPULATION IN THE HOME

Minimising food supply

Allergen barrier bedding covers

Although the primary role of allergen barrier bedding covers is to protect the person in the bed from exposure to dust mite allergen, they also play a role in reducing the amount of food material available to mites by preventing the spread of skin particles from the mattress and bedding to other parts of the room.

Vacuuming

Regular use of a vacuum cleaner can reduce the amount of food available to mites and limit the size of mite populations. Most dust appears to be removed in the first few passes over carpet⁽²⁾ so frequent rather than infrequent vacuuming should give the greatest effect.

Dust mites in clothing

Our clothes are also an important habitat for dust mites⁽³⁾ and regular washing or dry cleaning is an effective way to remove their food source and limit mite populations. Washing in hot water is necessary to kill dust mites (see below). Skin particles will accumulate in clothing during the course of a day and a sensible move to reduce dust mites' food supply in the bedroom is to undress in the bathroom at night and take a shower before going to bed.

Removal of habitat

Reducing places in the home where dust can collect will limit dust mite numbers. To take an extreme case, a hospital ward with plastic covered mattresses and pillows, frequently washed bed linen, vinyl covered chairs and no carpet is unlikely to contain large numbers of dust mites.

However, very few people are willing to turn their homes into a 'sterile' environment and dust mite control methods are usually compromised to cater for our creature comforts.

Some reasonable steps that can be taken are the use of modern, comfortable allergen barrier bedding covers, removal of carpet, upholstered chairs and soft toys from the bedroom and replacement of upholstered furniture in the lounge with leather or vinyl coverings.

Killing dust mites by non-chemical methods

Hot Water For textiles that can withstand hot water, washing at temperatures above 55°C can kill 100% of dust mites in clothing, bedding etc.⁽⁴⁾ Building codes in New Zealand limit the temperature of hot water at the tap to 55°C, so the temperature in the washing machine may be below the thermal death point for dust mites and may need to be brought up to 55°C with some jugs full of boiling water. Owners of front-loading washing machines which incorporate their own heaters do not have this problem.

Dry Cleaning For textiles that cannot withstand hot water, dry cleaning effectively kills dust mites⁽⁴⁾.

Steam True steam cleaners (those which generate steam as opposed to hot water) have been trailed and proven effective at killing dust mites in carpets⁽⁵⁾. However, these devices need to be used with caution as to be effective they need to be passed slowly and / or repeatedly over the carpet to bring the temperature at the base of the pile up to that required to kill mites. Some types of carpet can be damaged in the process⁽⁶⁾.

Hot air Tumble drying on maximum heat has been shown to be an effective way of killing mites in blankets and duvets, one study finding that mites in blankets were killed after ten

minutes⁽⁷⁾. Another found that mites in duvets were killed after one hour although a shorter time may have been effective as sensors placed in the centre of the duvets found that 55°C was reached after 22 minutes⁽⁸⁾.

Sun Direct exposure to sunlight can kill mites by ultra violet radiation, heat, reduced humidity or a combination. A study in Sydney found that placing rugs on a concrete slab in full sunshine for six hours effectively killed all mites in the rugs by a combination of heat and reduced humidity⁽⁹⁾.

Freezing Mites are killed by freezing and one commonly suggested means of controlling mites in duvets, pillows and soft toys is to place them in a deep freeze overnight. This can be a practical method if the deep freeze has enough capacity. One effective but less practical method of killing mites by freezing involved the use of liquid nitrogen at minus 196°C being poured over mattresses⁽¹⁰⁾ and in one study an entire house⁽¹¹⁾!

De-Humidifiers Homes with air conditioning and high efficiency dehumidifiers may be able to control mite populations by this method⁽¹²⁾ but studies that have looked at the portable dehumidifiers that are more commonly used in New Zealand have found disappointing results. Two studies in England found that portable dehumidifiers were unable to decrease indoor

Continued on page 6

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- COMFORTABLE - Precision microweave polyester-cotton fabric
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humidity sufficiently to retard mite population growth^(13, 14) and a study in Ohio, USA found that to completely prevent population growth of dust mites, the relative humidity had to be maintained below 35% for at least 22 hours per day⁽¹⁵⁾. Theoretically, if the indoor relative humidity could be maintained at below 65%, some retardation of mite populations should occur⁽¹⁶⁾ but practically, this is rarely achievable as various areas of the home retain higher humidity allowing mites to flourish and our indoor-outdoor style of living does not encourage strict humidity regulation.

Killing dust mites by chemical methods

Trials of dust mite-killing chemicals, termed acaricides have generally given disappointing results⁽¹⁷⁾. The obvious need for a balance between mite-killing activity and human toxicity was lacking in one early study which suggested bedding should be treated with Lindane, an organochlorine pesticide or pirimiphos-methyl, an organophosphorus pesticide⁽¹⁸⁾. The authors of this study did point out that long-term exposure from inhalation of vapour could result in "systemic toxicity". Lindane is now banned in New Zealand and many other countries due to its toxic and potentially carcinogenic effects!

Regardless of human toxicity, a limiting factor for acaricides has been their mode of application which often fails to reach dust mite populations. This is especially true of hand operated sprays or aerosols, which unless they have a strong fumigant effect are unable to penetrate to the base of a carpet.

The compound benzyl benzoate has shown the most promise and has been the basis for a number of different commercial acaricides in the form of sprays or moist powder formulae. It has low human toxicity, having been used for many decades as a topical application for the treatment of scabies mites. Properly conducted trials of benzyl benzoate have, however shown equivocal results when used in the home environment^(19,20).

Killing dust mites by "natural" compounds

In recent years there has been increasing interest in plant-derived compounds in the hope of finding effective acaricides that have low human toxicity and which will also be seen as "natural" and therefore more acceptable for use in the home. Analysis of extracts from plants that have a natural resistance to mite infestation has

shown some familiar compounds. For example, *benzyl benzoate* has been found in extracts of custard apple and cinnamon and so it is possible that this compound may enjoy greater success as a natural derivative than its purified chemical predecessor.

Caffeine Found in tea, coffee and cocoa, caffeine has shown some promising results in inhibiting mite growth⁽²¹⁾ but has not been commercialised.

Essential Oils One of the first studies of 'essential oil' as an acaricide was carried in 1997 by a research group in Sydney⁽²²⁾. They investigated the use of eucalyptus oil as an additive to washing machines as a means of killing dust mites when washing clothes and linen that could not withstand the 55°C necessary to kill mites. By emulsifying the eucalyptus oil in detergent before adding it to water as a pre-soak for 30 minutes, he was able to reduce the survival rate of dust mites in blankets by 97% compared to those washed in warm water.

The following plant extracts have shown acaricidal effect and are currently being studied to identify and purify their active components.

COMMON NAME	BOTANICAL NAME	REFERENCE
Fennel	Foeniculum vulgare	(23)
Anise	Pimpinella anisum	(24)
Custard Apple family	Uvaria spp	(25,26)
Clove	Eugenia caryophyllata	(27)
Mexican Tea	Chenopodium ambrosioides	(28)
Tonka Bean	Dipterix odorata	(29)
Cinnamon	Cinnamomum cassia	(30)
Makino (Korean)	Cnidium officinale	(31)
Taiwan cryptomeria	Taiwania cryptomerioides	(32)
Eastern Red Cedar	Juniperus virginiana	(33)
(Thai medicinal plant)	Trigonostemon reidioides	(34)
Chinese Tree Peony	Paeonia suffruticosa	(35)

NOTE: The focus of this article is reducing dust mite populations in the home but to be of value, removal of dust mite allergens must also be addressed. These can be separate processes and will be discussed in a later issue.

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... from page 5

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(Thai medicinal plant)	Trigonostemon reidioides	(34)
Chinese Tree Peony	Paeonia suffruticosa	(35)



IT'S TIME TO HAVE YOUR SAY!
If you or someone in your family has ASTHMA... READ ON!

YOU ARE INVITED TO TAKE PART IN OUR QUESTIONNAIRE. PLEASE COMPLETE AND POST IT TODAY!

1. Do you or someone in your family have asthma? Yes/No
2. If you have asthma what is the reliever you use now? _____

The most common inhaler is called a puffer. The medical name for it is metered dose inhaler (MDI). Currently there are two puffers that have reliever medicine funded - Ventolin and Salamol. However, as of July 2005, Pharmac has awarded a contract for sole supply of reliever medication Salamol to Airflow Ltd a wholly owned subsidiary of The Asthma & Respiratory Foundation. This means, you will be unable to use any MDI reliever medication other than Salamol.

Are you comfortable about your choice being limited to one brand of reliever puffer that is not your usual one? Yes/No
If "No", why do you feel uncomfortable? _____

3. *A sole supply contract for reliever medication means that you have to change your medication. If you are taking Ventolin, you will have to change to Salamol from July this year.*

Do you want to change your current medication? Yes/No
Have you any comment to make about changing your asthma medication? _____

4. *Salamol contains alcohol.*
Do you want to use reliever medication, which contains alcohol when there are other choices in the market? Yes/No/Not concerned

Do you want your child to use a reliever medication, which contains alcohol when there are other choices in the market? Yes/No/Not concerned

5. *There are hundreds of "not-for-profit" organisations in the country. They all represent their specific community. The Asthma & Respiratory Foundation's wholly owned subsidiary, Air Flow Ltd is importing the medication CFC free Salamol and Beclazone which is not CFC free. Salamol is the only reliever medication in an MDI that will be available for people who have asthma in New Zealand as of July 2005 thereby limiting your choice.*

In your opinion, is it ethical for a "not-for-profit" organisation to market drugs limiting people's choice? Yes/No

Asthma New Zealand represents people of New Zealand who have asthma. The findings of this questionnaire will be forwarded to the Ministry of Health (The Honourable Annette King) and Pharmac in an effort to ensure that adults and children with asthma can exercise their "choice" in which reliever medication they wish to use.

Thank you for your comments.
(Optional) Name: _____ Email: _____
(Optional) Address: _____



Source: American Academy of Allergy, Asthma and Immunology.

Allergic to dust mites?

Find relief in this ad.

An astounding 1 in 6 adults and 1 in 3 children suffer from asthma. And for many of these people, the asthma is not under control.

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What is the Key to Successful Patient Asthma Management?



Could it be the development of mutually agreed education that meets the patient's needs?

As nurses we need to be aware of the burden any chronic disease places on the person, the family, the community and society, both directly and indirectly.

We can only speculate upon the quality of life experienced by the person with a chronic illness. What we can offer that helps the person with asthma and the family is SUPPORT, PATIENT CENTERED EDUCATION, and CULTURALLY APPROPRIATE PARTNERSHIPS, with the emphasis on WELLNESS in relation to chronic disease.

Statistically one of the most common chronic diseases is asthma. This is supported by Holt and Beasley (2002) who state in New Zealand 1 in 4 children and 1 in 7 adults have asthma, this means approximately 600,000 New Zealanders have asthma.

In 1995/1996 11,156 of the population were admitted to hospital because they had had a severe acute asthma episode that required hospitalisation. Therefore if you have asthma you have a one in five hundred chance of being admitted to hospital. Of further concern, according to the 'Burden of Asthma' by Holt and Beasley (2002), is that of the 600,000 residents of New Zealand who have asthma 68% of them live with daily asthma symptoms, affecting the quality of their life. To put this into comparative figures asthma is the sixth most common cause of disability-adjusted life year or DALY (refers to years lost to a disability) in New Zealand.

These statistics demonstrate many in New Zealand are unaware they live with the symptoms of asthma on a daily basis or they have accepted the symptoms of asthma as part and parcel of having the condition. They are totally unaware of the importance and benefits

of achieving good asthma management. This is where asthma education and the asthma nurse educator comes' into her/his own. To help empower those who have asthma, educators need:

- an understanding of their patient and the factors which influence how she/he manages her/his condition.
- to deliver patient centered education;
- to ensure each patient has an action plan;
- to ensure medication regimes fit in with the patient's needs, culture and lifestyle.

Facilitating patient centered education is developing a partnership, which has the patient at the centre, with the asthma nurse educator, GP and community worker supporting and working with the patient, family/whanau on a wellness model. The education needs to be culturally appropriate, considers the individual patients perception of asthma, addresses any fears or concerns they have and ensures a sound understanding of asthma.

It is important to recognise that what the patient sees as relevant in managing their asthma may not be the same as what the educator considers the patient should think is important.

Why nurses educate

Nursing in all its forms constitutes an educative process, in which nurses usually function as health care co-ordinators for their patients.

Thirty years ago, Salmon (1970) viewed nursing as an art and an educative process. She suggested that when we enter into relationships with others, as part of our professional lives, we should have as our goal strengthening people to help themselves to develop their potential, so that they may be able to make physical,

emotional and social changes within an ever-changing world.

Patricia Benner's identification of nursing competencies provides a rich description of nursing practice through the use of exemplars of nurse-patient interaction (Benner, 1984). You may be familiar with Benner's notion of taking what is foreign and frightening for patients and/or their families and, by making it familiar, making it less frightening. Benner describes this process as coaching a patient through an illness and locates the process within the nursing competency of the teaching-coaching function.

Approach to Teaching and Coaching

When first diagnosed with asthma patient's and/or family/whanau experience fear. Fear of the unknown, fear of how it will affect their lives and fear of the inability to breathe. The fear may present itself as denial of the disease and then progress through several phases, in their efforts to learn how to control their/their child's asthma. This is supported by Zimmer et. al. (1999). To simplify let us consider the phases from a caregiver/parent viewpoint.

Zimmer (1999) informs us the four phases are:

- Phase 1. Asthma Symptom Avoidance (Asthma Denial)
- Phase 2. Asthma Acceptance (Coming to terms with the child having asthma)
- Phase 3. Asthma Compliance (Accepting the need for continuous medication)
- Phase 4. Asthma Self-regulation (Working with self-management plan)

You will no doubt have seen each phase but how do we as health professionals assess which phase the parents/caregivers are at? The first phase can be seen as a denial of the child having asthma.

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Statements such as:

1. I don't give the medications as I think she/he will grow out of asthma
2. I don't let her/him run about or take part in sport so she/he will not get symptoms
3. When my child starts to cough I give her/him cough medicine

are supportive of poor understanding.

Patients don't see asthma as a chronic condition, reflecting poor knowledge of the disease and how to deal with it.

In the second phase, asthma acceptance, you find patients may say things like:

1. We took her/him to hospital when she/he started to wheeze
2. As soon as she/he gets better I stop the medicine
3. If the medicine doesn't work right away, I stop using it.

supporting the theory that they have accepted asthma as an acute problem, by reacting to symptoms inconsistently, and not using a preventive approach.

In the third phase, asthma compliance, you may find families saying something like:

1. If his symptoms change, I call the nurse/doctor
2. You can never skip a dose of medicine
3. What if I give her/him the medicine and she/he gets worse.
4. I don't know why the asthma nurse/doctor changed the medicine

shows parents/caregivers are coming to terms with asthma, as a chronic condition and are coping with regular therapy but have a problem with what to do in a worsening situation. Making adjustments with regular treatment to changing situations demonstrates the patient doesn't feel confident or supported by the asthma educator. Meeting the patient's needs is the primary aim of education.

Parents in the fourth or last phase can be recognised because they say things that reflect an understanding and mastery of the child's management plan. For example:

1. At the first sign of a cold I give my child 4 puffs of the blue puffer every 4-6 hours.
2. Taking her/his reliever at school was a problem so we met with her/his teacher to discuss the issue
3. I now know when I need to see the asthma nurse or doctor about my child's asthma.

Demonstrates an understanding of how to manage asthma ensuring the parent and child work together so the child has minimum of symptoms, participates in all activities by adjusting therapy when needed.

By asking some open-ended questions to assess the family's beliefs, management practices, and concerns, you can get the kind of information we have been discussing that will help you determine the family's knowledge of asthma and how to manage the disease. This is important because you can teach the family some key points that will help them move to the next phase, and that will improve their ability to keep the child's asthma under control.

1. What concerns you most about asthma?
2. What concerns do you have about the medicines?
3. What concerns do you have about using the management plan of an acute episode?
4. At what stage would you consider it necessary to take you child to the doctor or emergency room?
5. What concerns do you have with the education you receive?
6. What concerns do you have with the health professionals?

Once you have asked open-ended questions to determine the family's beliefs, concerns, and practices, you may have a good idea about which phase they are in.

It is important to assess the level of the patient's knowledge and where they are in their acceptance of asthma because you can work with the family to help them move to the next phase, and that will improve their ability to keep the child's asthma under control.

Remember that it may take families sometime to accept the diagnosis and that it is a chronic condition. As health professionals we accept asthma as a chronic condition and the need for preventer medication. Because asthma is variable in its, clinical features, it gives credence to the notion that asthma comes and goes and is only present when the patient has symptoms.

An important point to remember is that

working with families on a phase they haven't yet reached is not useful. For example, if a Phase 1 family hasn't accepted the idea that asthma is a chronic problem that will keep coming back, teaching them about the value of preventive therapy will fall on deaf ears. Discuss the family's concerns and beliefs now, and then build on these as they grow.

By supporting, developing a partnership based on trust and care and providing key messages the health professional can help many families in Phases 1 and 2 develop their understanding, knowledge and acknowledgment of asthma and move up to Phases 3 and 4. This will empower the patient to take control of the disease.

1. Invest time to listen to their issues and concerns about asthma
2. Be attentive to what the patient has to say
3. Allay fears with specific, reassuring information.
4. Cultural safety ensure that you are culturally safe with all ethnic and cultural groups
5. Partnership working with the patient

When working with your patient on asthma education always bear in mind the following; The patient may be in denial as to the seriousness of asthma.

Fear often goes hand-in-hand with denial: fear of death, self-image and the perception of others, loss of independence; fear that the effects of inhaled corticosteroids outweigh the need for them.

They may be angry or embarrassed about their condition or its treatment.

May have difficulty using the inhaler devices, find the regimes awkward (eg. four times/day), dislike the medication or find the distance to their local pharmacy is a problem.

There may be existing barriers, which they feel in their relationship with you as a health professional which prevent them from approaching you or working in partnership with you in the management of her/his asthma.

So how can we approach these issues, which are a barrier to receiving Asthma education and treatment?

Our Approach

6. Repeated interaction by the health care professional to the caregiver is very important, including discussions to allay concerns

7. Invest time as well as being a teacher the asthma educator needs to be a good listener and communicator. Always make sure your interpretation of what the patient is saying is correct. To hear their issues and underlying concerns about asthma and medications, as well as teaching the basic disease process and promoting methods of treatment.
8. Show attentiveness to patient by making appropriate eye contact (depending on patient's culture), listening to concerns, providing encouragement through nodding agreement, smiling, and giving verbal praise for effective management strategies. Showing empathy.
9. Allay fears by providing correct and specific information to the patient's that address the patient's concerns.
10. Cultural safety, by learning the issues involved in cultural awareness. This includes different generations; gender; sexual orientation; occupation and socioeconomic status.
11. Partnership working side by side with your patient, continually asking 'is this what the patient wants' and 'is this partnership working?'

Aids to Educating (in addition to our approach)

1. Use as many visual tools as you have including leaflets that are culturally and academically appropriate. Provide patients with a written explanation of asthma and an Asthma Action Plan. Ensure that this is a mutually agreed plan including the patient's goals of treatment. Review the Asthma Action plan regularly. An Action Plan that has been developed in partnership with your patient will promote self-reliance and empowerment.
2. Tailor the medication regime to the patient's routine as much as possible.
3. Request patients bring their peak flow meter to regular and urgent office visits. This reinforces the importance of home peak flow monitoring in accordance with their Asthma Action Plan.
4. Support systems are important. While the patient may not be interested in learning about asthma and treatment, their family members, caregivers, employers, teachers, even fellow-students, may be. Meeting with them or having them

attend education sessions, writing notes for work or school, can help with treatment compliance. Schools and pre-schools could keep a copy of the child's Asthma Action Plan or Emergency Care Plan. Lack of support can affect asthma control therefore support systems need to be part of the education process where possible.

5. Anxiety and Depression. Patients with persistent asthma have a higher incidence of both anxiety and depression than those without chronic disease. Refer your patient to their physician if they show any signs anxiety/depression.
6. Motivate Patients by asking them to discuss the impact asthma is having on them, evidenced by their symptoms and impaired lifestyles as revealed by assessment enquiry or asthma diary. Offer the alternative of improved lifestyle and prophylaxis.
7. In addition to education with regard to pathophysiology of asthma, education should explain that:
 - Disease may be present even when symptoms are absent
 - Bronchodilators treat symptoms but not the disease
 - Anti-inflammatory preventative medication (ICS) treat the disease
 - Prevention is usually effective
 - Prevention may take up to a month to be fully effective
 - Preventative medication is ineffective unless taken daily (use the analogy of the contraceptive pill)
 - Stopping preventative medication often results in return of symptoms
 - Preventative medication does not immediately help symptoms
 - The use of bronchodilator reliever medication when experiencing symptoms could in fact save their life therefore they should always carry an inhaler with them and use it as "rescue medicine."

Further Tips You Can Give to Patients Regarding Preventer Medication (ICS)

1. Take it at the same time every day.
2. Make it a routine, like brushing your teeth or other daily events. For example, try to take your medications as soon as you wake up.

3. Ask family members to remind you.
4. Make a note of it on your calendar.
5. Place reminder notes on your refrigerator or medicine cabinet.
6. Set an alarm clock at the correct time, in the morning, after each meal, or evenings, to indicate when you should take your medication.
7. Make sure to check the expiration date to see if the medication is still effective.
8. Always follow the instructions on the bottle of your medication.

Conclusion

Agreement on taking medication can be increased if the patient accepts the diagnosis of Asthma; believes that his/her asthma may be dangerous, a problem, or they are at risk; is knowledgeable about asthma, the drugs, and management; feels in control; believes that the treatment is safe; and has a good relationship (and mutual communication) with health care professionals.

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THE OTHER LUNG DISEASE

It's one of the world's leading killers, and early diagnosis could save lives. Why don't doctors test for COPD?

BY MICHAEL D. LEMONICK

It used to take Bernard Regeth, 76, just 15 minutes to harness his two horses. "Now", says the retired mechanic from River Falls, Wisconsin, "it takes a good hour. I put the collar on, and I have to sit down and rest. I put the harness on, and I have to sit down and rest. I buckle the harness, and I have to sit down and rest". If he exerts himself too much at a routine task like sweeping the kitchen floor, he feels as if he's suffocating. "I have to completely sit down and take a puff of one of my puffers until it goes away".

Regeth suffers from a disease most people never think about. Most haven't even heard of it, at least by the official name used by doctors, researchers and advocacy groups. A person might worry about getting heart disease or cancer or Alzheimer's, but who sits around fretting about chronic obstructive pulmonary disease (COPD)?

In the U.S., lung cancer is deadlier (it killed 150,000 Americans in 2000, vs. 120,000 for COPD), but COPD is more common – by a long shot. Some 13 million Americans suffer from COPD, nearly 40 times as many as have lung cancer. In fact, this "other" lung disease – a condition that includes more familiar illnesses such as chronic bronchitis and emphysema – is the fourth leading cause of death in the U.S.,

after cardiovascular disease, certain cancers and stroke. The number of deaths due to COPD has nearly doubled over the past two decades, and the most dramatic increase has occurred in women. In 2000, for the first time, COPD killed more females than males. By 2020, it may be the third leading cause of death in the U.S. and the fifth in the world.

That frustrates doctors to no end, because while COPD isn't curable, it's largely preventable. Although genes play a role in the disease, about 85% of all cases in the U.S. are triggered by smoking; in countries where cigarette and pipe smoking are commonplace, the disease is vastly more prevalent. When cells are exposed to toxic substances for prolonged periods,

THE OTHER LUNG DISEASE

they tend to become inflamed and swollen. In COPD, cells lining the lungs swell to a point at which they restrict the flow of air. "It's like a sunburn of the air passages", says Dr. Thomas Petty, a pulmonologist at the University of Colorado Health Sciences Centre in Denver and at Chicago's Rush University. Swelling and inflammation trigger bronchospasm, a clenching of the muscles surrounding the air passages, further choking off the oxygen supply. Inadequate oxygen in turn damages the alveoli, the sacs of cells that transfer oxygen into the bloodstream.

BREATHLESS Lung damage keeps this Kiwi from working as he once did. Even ordinary chores leave him gasping.

The best way to stop this vicious circle is to quit smoking. "If people stop smoking early on", says Petty, "their lung function actually

goes up and stays up for five years". That's a lot easier said than done, considering how addictive tobacco is – and it's not an option for the 15% of COPD victims who don't smoke. But even for non-smokers, it's important to identify the disease as early as possible as that's when drugs are most effective. And because people with COPD are especially prone to lung infection, they need to be vigilant about antibiotics and flu shots.

But while early diagnosis is crucial, it rarely takes place. By the time symptoms like shortness of breath appear, the illness has usually been progressing for a decade or two. "It's like the brakes on a car", says Dr. Michael Stulbarg, chief of clinical pulmonary medicine at the University of California, San Francisco, Medical Centre. "You don't realise the damage they're enduring in normal use, and then at some point they just go out on you".

The only sure-fire way to identify COPD is with a C.T. scan, but few insurance companies

cover such an expensive test for a symptom-free patient. There's another highly reliable technique, however, that's a lot cheaper: a \$1,000 cell-phone-size device, known as a spirometer that measures lung function. Unfortunately, says Petty, most doctors don't own a spirometer, and have probably never used one. "It's ridiculous", he says. "Doctors do bone scans and every everything else, but no spirometry."

That could change if patients demand routine lung tests, but most are unfamiliar with COPD. "We've been our own worst enemies in the medical community – using so many different names for what we're talking about," says Sonia Buist, a pulmonologist at the Oregon Health Science University. Patients have heard of emphysema, the old-fashioned name for end-stage COPD, but it's stigmatised as a self-inflicted disease. "They feel guilty about it", says Dr. Stephen Rennard, a pulmonologist at the University of Nebraska Medical Centre in Omaha, "and so they don't complain much". They also

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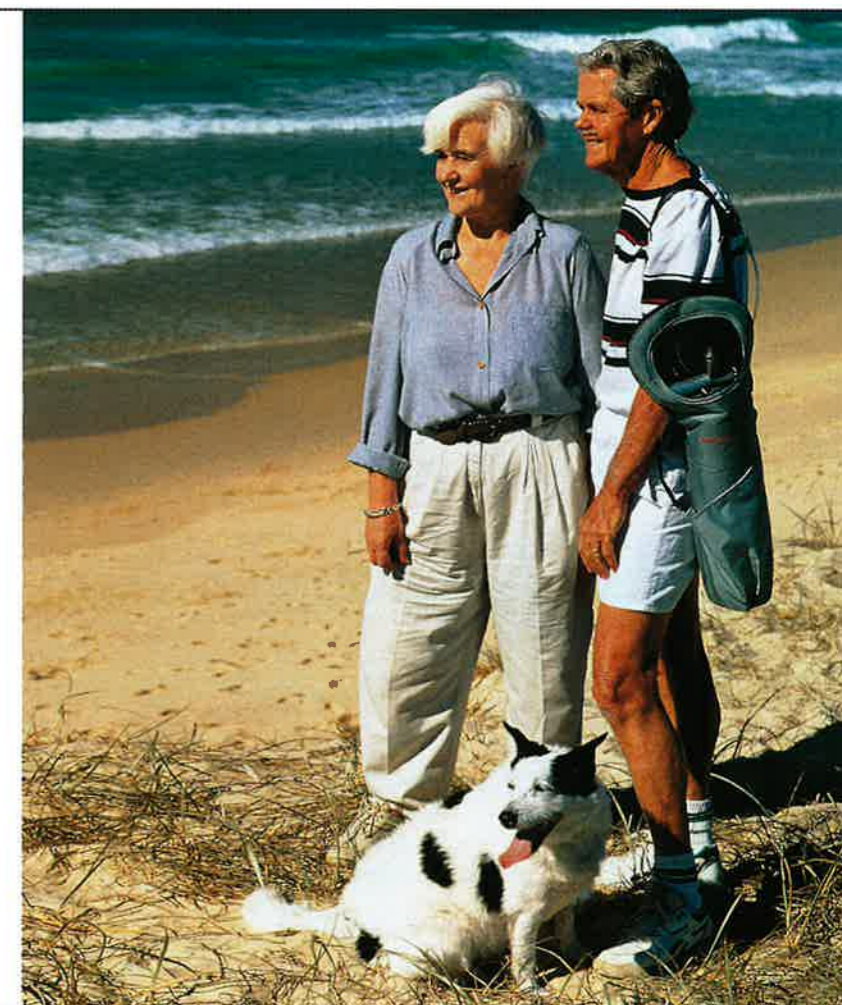
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don't generate the kind of sympathetic funding that goes to more presentable diseases. People with advanced COPD "aren't cute", he says. "They're suffering and miserable".

COPD victims do have some new treatment options. These go beyond the traditional bronchodilator drugs, which are used to relax the bronchial tubes and increase airflow, and the more radical lung-volume-reduction surgery, which removes the most damaged tissue to give the rest a chance to work more effectively. Inhaled steroids, for example, can reduce inflammation. Even more promising is a new class of medications called PDE4 inhibitors, now in clinical trials, which not only appear to fight inflammation but also may slow the progress of the disease. Yet another group of compounds, called retinoids, may even help damaged lung tissue grow back.

Victims can do plenty to help themselves. Because exercise makes COPD patients short of breath, say Stulberg, "they turn into couch potatoes. And when they finally do exercise, the

symptoms are even worse". Whether you have COPD or not, exercise is the best way to build endurance. "You push yourself", he says, "and gradually your limits increase".

Stulberg showed in a recent study that even simple walking can help reduce COPD symptoms. Another study is looking at the possible benefits of yoga. Says co-investigator Virginia Carrieri-Kohlman of the University of California, San Francisco, School of Nursing: "We've got 70 year olds who are on oxygen, and they're able to get down on the floor and do some breathing and do the poses".

So while there's still no cure in sight for COPD and while folks like Bernard Regeth won't ever get back their old selves, they have more options than ever for keeping the illness from completely destroying their lives. And if doctors and patients paid a little more attention to prevention and early treatment, the rates for this worldwide killer could start dropping, rather than rising, in the charts.

Reported by Dan Cray/Los Angeles and Harlene Ellin/Chicago.

The statistics provided in this article are quite scary, 13,000,000 Americans have COPD, that's over three times more people than residents in New Zealand. The Thoracic Society of Australia and New Zealand estimate there are 223,000 people in New Zealand with obstructive lung disease. Of these only 50,000 have been diagnosed.

Another factor, which contributed to the publication of the article in the journal, is the positive stance it takes on the importance of diagnosing COPD in the early stages. This is the main thrust of the COPD Nursing Course run through Unitec, School of Health Science, it looks at addressing prevention, identifying COPD in the early stages and working with patients who have COPD in a holistic manner.

If you would like to know more about the issues concerning COPD or you are interested in the COPD Nursing Course please contact Janette Reid at 09 6302293.



SCHOOL DAY? OR ASTHMA DAY?



In a recent study of 3,421 people, in centres all around the world, most people showed they could markedly reduce their asthma symptoms. So if you are losing days off work or school to your asthma: **ask your doctor if you can manage asthma better.**

**MAKE
TOTAL
CONTROL
YOUR
ASTHMA
GOAL**

Reference:1. Bateman ED et al. Am J Resp Crit Care Med. 2004;170:836-844.

Flixotide (fluticasone propionate Inhaler; 25, 50, 125 or 250 micrograms per actuation and Accuhaler 50, 100, 250 microgram per actuation). **Prescription Medicine for the prevention of asthma. Do not use:** if you have ever had an allergic reaction to fluticasone or lactose; for sudden attacks of breathlessness. Always carry your reliever inhaler for use during acute attacks. **Tell your doctor if you:** are taking other medicines or herbal remedies; have had to stop taking other asthma medicines; you have tuberculosis (TB) or other long-term lung infection. **Do not discontinue Flixotide suddenly** without consulting with your doctor. **Common side effects:** sore throat or tongue, hoarseness or throat irritation, skin reactions, shortness of breath and wheezing. Tell your doctor or pharmacist immediately if you have any concerns. **Use Strictly as directed Ask your doctor if Flixotide is right for you. Normal Doctors visit fees apply. Flixotide inhalers are fully funded medicines, normal chemists fees apply. Flixotide Accuhaler is not fully funded. A part charge will apply to Flixotide Accuhaler. If symptoms continue or you have side effects see your doctor or pharmacist.** Flixotide is a trademark of the GlaxoSmithKline group of companies and is marketed in New Zealand by GlaxoSmithKline NZ Ltd, Auckland. **Additional product information is available from GlaxoSmithKline on 0800 808 500; Consumer Medical Information on Flixotide is available at the Medsafe website: www.medsafe.govt.nz under Consumer Information.**



**AN ASTHMA HEALTH
INITIATIVE FROM:**

Flixotide 
fluticasone propionate

Wow! A first for New Zealand



Many New Zealanders will have heard of the mighty Green Lipped Mussel, and the health benefits the Kai Tahu Iwi gained from eating the mussel.

Anecdotal evidence has shown that Kiwi's who have arthritis and take Lyprinol (an extract produced from the Green Lipped Mussel) have less pain than those who don't. This means Green Lipped Mussel a natural product found here in New Zealand probably has an anti-inflammatory property. Due to the widely held belief that there are anti-inflammatory properties in the mussel and since asthma is a chronic inflammatory condition then it may be that those who have asthma will benefit from taking Lyprinol.

In 2002 Pharmedica the company who produce Lyprinol supported a study on the benefits of Lyprinol on adults who have asthma. The project demonstrated that there were some benefits, which warranted further investigation.

Because of this Asthma New Zealand-The Lung Association in partnership with Pharmedica will shortly be working together on a study that looks at children between the ages of 6 and 12 years

who have moderate to severe asthma. Half of the children registered will be given Lyprinol while the other half will be given a placebo in the belief the children receiving the Lyprinol will benefit, symptomatically and in their quality of life.

Unfortunately due to the population of New Zealand being so wide spread only children from the Auckland area can be considered.

If you would like to know more about the study, please call Asthma New Zealand - The Lung Association at 623 0236.



ASTHMA EDUCATION SESSIONS FOR HEALTH PROFESSIONALS

Standard Sessions include:

- Pathophysiology of Asthma
- Signs & Symptoms
- Triggers, Medications
- Use & Care of Spacer
- Self Management Plans
- Nebulisers and Device Training

Session content can be altered as appropriate to meet the needs of the attendees.

Take advantage of this offer.

An asthma nurse educator can call in at your practice / place of work at a time that suits you and your colleagues.

Session duration is approximately 1 to 2 hours.

A certificate of attendance will be provided for your portfolio.

Do you need assistance or support to set up an Asthma Clinic?

Please contact Marli Merhoye, Asthma Nurse Educator, Asthma Auckland, Tel: 630 2293, Fax: 623 0774, or email: marlim@asthma-nz.org.nz to set up an education appointment time.



The Simplicity of Breathing

by Claire Perry



The ability to blow up a balloon or to inhale the sweet perfume of a rose is something we all do without thinking or without too much exertion.

The simple act of breathing is not as simple as we assume, rather, it is a complex system of delicately controlled nerves, muscles and organs that are programmed to balance subtle changes of air pressure within our lungs.

Let's begin with the organ that stands out on our face and has as many uses as its reputation suggests. It's been noted to add distinction and character to its bearer and allows the subtle aromas of the environment to be examined and stored within our memory for the purpose of further exploration or signals one to be wary and seek a hurried avenue of escape. It also gives its owner a handy receptacle on which to support their eye glasses and assists with the timbre of their voice. Yes, I am speaking of the humble nose.

The nose has all of the aforementioned functions plus some surprisingly important roles that aren't so well known. As we draw air in, the nasal cavity ensures that large particles are stalled on their excursion, to the lungs, by stiff tissue and hairs. This is one of the first lines of defence that our body uses to expel uninvited and unwanted guests, as stated previously, this also includes a response to odours. As the hairs detect a disturbance we may remove the intruder by sneezing and by excess mucous production. Smaller particles, such as bacteria, are usually trapped by the mucous and then destroyed by the enzymes that it contains. Ideally, the irritation exits on the wave of fluid we've manufactured assisted further by vigorous rubbing and blowing.

As the air proceeds on, a labyrinth of mucous membranes that support a thin structure known as the turbinate bones warms it. As the name suggests, the air is rolled around a small passage where the turbulence created further cleanses and humidifies it.

From the nose the air passes through a succession of muscular tunnels beginning with the pharynx. The air turns on an angle of 90 degrees and makes its way into the larynx. The

larynx's main role is to keep food and drink out of the airway, but it also has the ability to produce sound. The larynx is equipped with a protector shaped like a leaf. This guardian of the airway is called the epiglottis, it directs food and drink into another passage situated behind the airway. So, as you sample a superb wine or an incredibly sinful dessert you can wax lyrical and extol the virtues of possessing a fine palate as you swallow it back without fear of choking and embarrassing yourself in front of your hostess and her guests.

From the larynx the air moves into the trachea, or windpipe, where approximately 12 centimetres down, the trachea divides into two smaller tubes called the bronchioles, which in turn enter the lungs.

Each bronchus continues dividing into ever decreasing branches. Ending in the bronchioles, which are tipped with a cluster of tiny spheres called air sacs. The air sacs' appearance resembles bunches of grapes, and has elastic abilities that imitate the action of balloons. As they fill with air they swell and expand the surface area enabling gas exchange to occur. Oxygen molecules are exchanged for waste materials, such as carbon dioxide molecules, and the newly oxygenated blood travels around the body via blood stream replenishing the body's oxygen supply. The waste products traverse the path of entry and exit our system (Saladin, K. 1998).

This structure, without the spongy covering of the lobes of the lungs, gives the impression of an upside down tree with its branches spread wide and leafless.

Air pressure that is lower in our lungs than the atmospheric or external pressure is what causes us to draw air in. As our lungs inflate, the pressure builds causing us to expel the air in order to equalise the inside pressure with the outside. Under normal circumstances, equalisation of air pressures are abnormal, stasis

would result, therefore, the ideal is to create an unequal environment in order to preserve the in and out pattern of breathing (Porth, CM, 1998).

The lungs and their surrounding companions have very little muscle mass and rely on the larger ventilation muscles, the diaphragm, intercostal muscles and abdominal muscles, for their strength and flexibility to lift the ribcage enabling coughing and ventilation of the airways to occur (ibid).

This account of our respiratory system explores the act of breathing in its' crudest and most basic form, however, without any of the above components, breathing, inspiration and expiration, could not take place without artificial assistance.

A variety of interventions have been designed to assist with effective breathing techniques. Physiotherapists and Respiratory Nurses, to name a few, design programmes to assist in breathing rehabilitation. Among the resources available, Asthma New Zealand has designed a pamphlet called Breathe Well to be Well that outlines the importance of a good breathing pattern and simple exercises to achieve this target. They stress that identifying any respiratory condition is of benefit as you can establish goals and effective patterns. The pamphlet also includes a sample test is included to assess your personal breathing rate accompanied with basic tips to assist your progress.

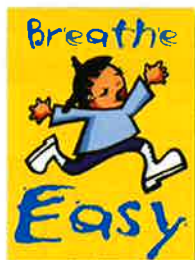
So, the next time you lift a bloom to your nose and inhale its' sweet scent, spare a thought for the processes at work and take pleasure in knowing that you don't actually have to think about it.

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Anyone for Wine and Cheese?

WRITTEN BY ANN WHEAT



Little Miss Muffet sat on her tuffet, eating her wine and cheese. She started to cough and then to wheeze. Life was no longer a breeze.

Yes, wine and cheese are often the food and beverage that one partakes when attending functions of any kind. For most of use there are no problems when we eat and drink them, but for a few people wine and cheese may initiate an allergic reaction that triggers an acute asthma episode, especially if they already have asthma. So why does this occur and are there some groups that are more affected than others? If wine triggers asthma episodes, can other alcoholic beverages do the same?

To answer these questions, it is best to investigate wine and cheese individually.

Wine:

Vally and Thompson (2003) state that "wine is clearly the most commonly reported alcoholic drink trigger for allergic and allergic-like symptoms". So what is it in wine that causes these reactions? When reading any literature on this topic, it is obvious that there is considerable discussion on what causes these reactions to occur.

Wine is made by removing the stems and crushing of grapes to form a 'Must' (juice, skins,

seeds and pulp). In white wine, the 'Must' is pressed immediately to obtain the juice for fermentation. In red wine, the 'Must' is kept in contact with the skins for several days to allow the red pigment to be extracted prior to pressing. Sulphur dioxide (SO₂) is added to the mixtures to prevent spoilage organisms and oxidation. Yeast culture is also added to the mixture to start fermentation, (yeast converts sugar to alcohol and carbon dioxide). Once fermentation is complete, the clear wine is separated from the spent yeast cells and other solids. The wine is then clarified (removal of sediment) over several months before bottling. During the stage of clarification, further amounts of SO₂ need to be added to again prevent spoilage and oxidation. SO₂ is also used to sterilise barrels or tanks before fermentation takes place (Vally &

Thompson, 2003). It is also worth noting, that grapes have a high level of salicylate, a naturally occurring chemical found in fruits.

So could some of these be the cause of asthma episodes in susceptible individuals? The answer is almost certainly "Yes" and some of the probable triggers are discussed below.

Alcohol itself can trigger asthma episodes in some individuals. Individuals affected are mainly of Asian extraction, (Japanese, Chinese and Koreans, Auckland Allergy Clinic, n.d.) as well as American Indians, Eskimos and Mexicans (Vally & Thompson, 2003). This is probably due to the release of histamine from human lung mast cells which may cause bronchial smooth muscle contraction following alcohol consumption (Kawana et al., 2004).

Sulphite (SO₂) is another potential trigger.

ANYONE FOR WINE AND CHEESE?

Vally & Thompson (2003) suggest that between 5 – 10% of people with asthma are sensitive to the ingestion of sulphites. They go on to say, "That sulphite sensitivity appears to be heightened when individuals are exposed to solutions of sulphite and this is accentuated even further when these solutions are acidic in nature". It is also suggested that individuals are more sensitive to sulphites when their asthma is not under good control (Vally & Thompson, 2003), and therefore more at risk of an acute asthma episode.

Salicylates are a known trigger for people with asthma. But on reading the literature, it is uncertain whether it is the naturally occurring salicylates in wine that triggers the asthma response (Vally & Thompson, 2003). However, the Auckland Allergy Clinic, n.d., suggest that they could play a part in urticaria and eczema.

As a final note of interest, other alcoholic drinks, such as beer and spirits, have also been implicated in the triggering of an asthma response in some people. In Caucasians, it is the non-alcoholic components of beer and spirits that appear to be the main cause of these reactions. These components include such substances as barley and malt.

On the reverse side, it is also worth a mention, that in some people alcohol (ethanol) itself can help to relieve asthma by causing broncho-dilatation by relaxing the smooth muscles (Liang, 1999).

Cheese:

Cheese is made from milk and it is often suggested that milk or dairy products can trigger asthma especially in children. In fact less than 11 percent of children will have a true food allergy (my doctor 2003). In adults this figure is much, much less, although little research has been carried out on this. Many adults believe that dairy products affect their asthma and the research that is being carried out, does seem to back up this belief.

So how is cheese made?

Cheese is made by coagulating/curdling milk. Cheese is usually made from cow's milk but it can be made from sheep's milk, goat's milk and various other animals. In fact, authentic mozzarella cheese is made from buffaloes' milk.

The milk has a starter (bacterial culture which produces lactic acid) added to it, and a coagulating enzyme, (usually rennet which used to come from the fourth stomach of calves and which is now made in the laboratory), that helps to speed up the process of separating the

liquids (whey) and solids (curds). The curds are then separated from the whey by cutting and are then pressed, which expresses even more of the remaining whey. Once this is complete the cheese is salted to enhance flavour and to inhibit undesirable microbes. The smaller curds are then pressed together again to form larger curds thus allowing for shaping of the cheese. The cheese is then left to ripen. The bacteria continue to grow; helping change the cheese's chemical composition and resulting in increased flavour and texture.

What is it in cheese that is the possible cause for triggering asthma?

In cheese, the curd (casein) and four main proteins (bovine serum albumin, gamma globulin, a-lactalbumin and B-lactoglobulin, Labspec, n.d.) are probably the cause of allergies causing asthma in most people.

Lactose that is the predominant sugar of milk, can also play a part in triggering reactions, but these are usually more gastro-intestinal than respiratory.

Summary:

Alcohol can have both a beneficial and detrimental effect on people with asthma. But as a general rule, it should be emphasised that drinking alcohol is **NOT** advisable, especially for Asian people, who have asthma.

Cheese in children can certainly cause severe reactions especially for those who are allergic to milk and should therefore be avoided at all costs. Even adults if truly allergic to milk, need to keep away from cheese.

So although many of us enjoy drinking and eating wine and cheese when attending functions of all kinds, for some both of these extremely common foods can have a severe if not fatal affect.

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North & South

NEWS FROM AROUND THE REGIONS

WELLINGTON REGIONAL ASTHMA SOCIETY CHILDREN'S ASTHMA CAMP

A very successful children's asthma camp was held at Forest Lakes Camp, Otaki from the 21-24 January 2005. Twenty eight children attended along with 16 adult helpers and parents. Last minute illness prevented a number of children joining us this year. Three nurse educators took separate interactive group education sessions with small groups of children on a variety of asthma related topics using pre-prepared workbooks. Each child also had a 15 minute individual session with an educator during the camp to go over their workbook and their own asthma management. Children took their completed workbooks and education posters home with them. The emphasis was on physical participation in events, made possible through the correct use of medications. The children

enjoyed swimming, kayaking, a flying fox, the confidence course, a large waterslide into the lake and the ever popular mudslide. The last day on the way back to Wellington, the bus stopped at Lindale Farm and the children saw sheep shearing, milked a cow, and fed the lambs. Two follow-up evenings were held for parents and children with the educators and camp helpers. The parents had a chance to see a slideshow of the camp activities and the educators were able to obtain feedback from parents. The children had a separate session to give their feedback on the camp.

Once again the camp was fully funded through sponsorship requiring only a 'deposit' from parents. McDonalds donated sipper bottles, Glaxo Smith Kline toilet bags, and the children received a new Space Chamber each.



ASTHMA AUCKLAND WELCOMES NEW STAFF

Claire Perry – Asthma Nurse Educator



Ehara ta te tangata kai, he kai titongi kau; engari mahi ai ia ki te whenua; tino kai, tino makona (Food provided by someone else is only food to be nibbled; Food produced by one's own labour on the land is good, satisfying food) Ko Te Arawa toku waka. Ko Ngati Whakaue raua ko Ngati Pikiao oku iwi. Ko Maketu te whenua. Ko Whakaue te Marae
Ko Claire Perry taku ingoa. Tena koutou katoa, I joined Asthma Auckland in November of last year and have found I am ensconced in

a dynamic environment that is both exciting and challenging, mentally and physically. I am fortunate to be a member of a team that is driven by passion and a true commitment to their roles either as educators, administrators or volunteers. The above proverb symbolises our roles, as I see it, in that, the information that we offer can provide assistance, however, the real benefit is gained by the work that the recipient themselves put into their own health gains. Therefore, I look forward to my future with Asthma Auckland with enthusiasm. Asthma Auckland takes great pleasure in welcoming our newest recruit Claire Perry to the

Asthma Nurse Educator team. Claire will be responsible for asthma education within the South Auckland area. Coming from a background of child and family community health, where she worked with the Maori and Pacific Island families, has given Claire practical knowledge and communication skills which will be well utilised in this position.

Samantha Meagher – Volunteer and Events Coordinator



Asthma Auckland welcomes Samantha as the Volunteer and Events Co-ordinator. Volunteers are an integral part of every not for profit organisation and Sam will co-ordinate Asthma Auckland's volunteers and events. Good Luck! Sam. Our members can look forward to the exciting events Sam is planning for the year.

I have three children and when the youngest reached school age I decided to rejoin the workforce in a part-time capacity. All three children had medical issues and that led me down a different pathway to the one that I had anticipated when I became a mother. I learnt about a variety of organisations that helped families and became involved with the Kids Foundation and am still involved with Parent to Parent. My previous training and work had all been to do with visual arts!

The job at Asthma Auckland as Volunteer and Events Co-ordinator uses all the practical skills that I gained as a mother with some of the creative skills that I also have. I grew up with a father who was a chronic asthmatic so I am also well aware of asthma as a condition.

The Family Fun Run in particular is an exciting project to be involved in. We have relocated the Run from its traditional venue of Ponsonby, to our locality of Mt Eden for health and safety reasons. This year it will be held at Tahaki Reserve, which is one of Mt Eden's hidden treasures. I want the Fun Run to be just that, Fun and also a family event. Highlight of this event will be the special activities targeted for children making it, a true family Fun Run.

Volunteers are vital to any organisation and I want to make Asthma Auckland a place where volunteers can feel wanted, needed and treasured!

Rotary gets behind Asthma

One of Rotary Internationals flagship programmes - Group Study Exchange – is getting behind asthma in a very practical way. Rotary District 9970 which covers the top half of the South Island has selected a team of four members actively working in asthma to travel to parts of British Columbia, Canada, and Washington State, USA to learn about approaches to asthma in that part of the world.

"With specialists in research, service coordination, paediatric outreach nursing and Maori development we have a talented and diverse team" says Rotarian Team Leader Heather Fear. Heather who has many years experience in health promotion and working collaboratively in health, is delighted that the team represents such a broad spectrum of involvement in asthma.

Simon Causer is a Research Leader in the applied sciences division at CANESIS, with a particular interest in environmental aspects of asthma, including the role of carpets and furnishings in regulating air pollutants. Simon is looking forward to spending time with asthma researchers and advocacy groups. Gaining insights into issues affecting the health and well being of first nation populations is high on the list of priorities for Gilbert Taurua. Gilbert is a trained Social Worker with a keen interest in Maori development through his role as the Business Development Manager for He Oranga Pounamu. As the Service Coordinator for the Canterbury Asthma Society, Jillian Mitchell is interested in the role of non governmental health organisations and the approach to holistic programmes in the community. The fourth team member Belynda Wynn, works as Clinical Nurse Specialist in the Children's respiratory outreach programme at Christchurch Hospital and is looking forward to meeting paediatric respiratory nurse specialists and observing children's outreach service and nurse led clinics.

Group Study Exchange (GSE) funds travel grants enabling teams of participants to

exchange visits between different countries. For four to six weeks, team members study the country's institutions, and ways of life, observe their own vocations as practiced abroad, develop personal and professional relationships and exchange ideas.

After hearing a talk at his Rotary Club about the extent to which asthma affects the lives of so many New Zealanders, District Governor Alex Murray made the decision to send a specialist asthma GSE team from District 9970 this year. Worldwide this is the centennial year of Rotary and DG Alex is pleased that in his district Rotary is getting behind asthma to help reduce the impact of this condition on individuals and the community.



Standing – Members of the District 9970 GSE Committee L-R Wendy Cornish, Terry Donaldson, DG Alex Murray and John Margetts
Seated – Members of the GSE team L-R Jillian Mitchell, Belynda Wynn, Gilbert Taurua, Simon Causer, Heather Fear

SOUTHLAND ASTHMA SOCIETY HAS A NEW HOME.

After six years The Asthma Society's signs came down at 480 Dee Street Invercargill as the Southland Asthma Society moved to a more central location. Southland Asthma Society President Kevin Walsh said that although the old centre was roomy it did have a number of disadvantages in that parking was difficult to find in the area, especially when the CCPD group "Huffers and Puffers" held their monthly get together. The coal fired heating system was also a problem. All that is behind us now, Mr. Walsh said, The New Asthma centre at 184 Esk Street is much more accessible.

Helen Lang has joined the Society as Office Manager and is the voice of Asthma Southland on the phone and the smiling face behind the desk. Helen brings a wealth of experience to the position and has slotted into the hot seat with little if any disruption to our services.

The Southland Asthma Society contact numbers, telephone 03 214 2356 and fax 03 214 2357 remain the same but the previous postal address has been changed to P. O. Box 1793, Invercargill.



THANK YOU!



The Downtown Warehouse Team gets behind Asthma Auckland in the fight against Asthma.



The Team at Sunshine Charity Opportunity Shop located at Bruce McClaren Road Henderson supports Asthma once again.



BRONCHIOLITIS

COMPILED BY JUNE BELL

What is it?

Bronchiolitis is a common illness of the respiratory tract. It is caused by a respiratory infection that affects the tiny airways, called the bronchioles that lead to the air sacs. These airways become inflamed, they swell and fill with mucus, making it difficult for the child to breathe. (The term bronchiolitis is sometimes confused with bronchitis, which is an infection of the larger more central airways).

What causes bronchiolitis?

Bronchiolitis is usually caused by a viral infection, more commonly respiratory syncytial virus (RSV). RSV infection is responsible for almost half of all cases of the illness, and is an annual epidemic due to the high frequency of cases every winter. New Zealand's rate of infection is high and almost double that of the United States.

Other viruses involved may include:

- Parainfluenza virus
- Adenovirus
- Rhinovirus

The figures below show the total number, mean stay for inpatients, and day cases for the year 2000/2001 in New Zealand.

	Mean stay	Total	Daycases	0-	5-
Acute bronchiolitis due to respiratory syncytial virus					
Total	4.1	945	66	943	2
Male	4.0	519	41	517	2
Female	4.3	426	25	426	0

Acute bronchiolitis due to other specified organisms					
Total	6.2	46	5	42	0
Male	6.7	30	4	27	0
Female	5.3	16	1	15	0
Acute bronchiolitis, unspecified					
Total	2.9	3100	546	3067	7
Male	2.9	1852	316	1842	2
Female	2.9	1248	230	1225	5

RSV is the most significant cause of serious respiratory infections, such as bronchiolitis, croup and viral pneumonia, during infancy. Most adults and many children who are infected by RSV develop a cold. In infants, however the infection is more likely to lead to bronchiolitis. This happens because their airways are small and are easily blocked when infection and inflammation occur.

Who gets it?

Bronchiolitis is primarily a disease of young children under two years of age. Peak occurrence is at about three to six months of age.

- It is more common in males
- It is more common in formula fed infants
- Those at high risk of developing asthma (hereditary)
- Children cared for in day care centres
- Children exposed to cigarette smoke
- Children living in overcrowded living conditions

- Most children who get bronchiolitis have been exposed to an adult or another child with a cold

Who is at risk?

Although it is often a mild illness some infants are at risk of developing a more severe bout that require hospitalisation.

Conditions that increase risk are:

- Prematurity
- Chronic heart or lung disease
- A weakened immune system due to illness or medication

Children who have had bronchiolitis may be more likely to develop asthma later in life, but it is unclear whether bronchiolitis causes or triggers asthma, or whether children who eventually go onto develop asthma were simply prone to developing this disease as infants.

What are the signs and symptoms?

The first symptoms are usually the same as those of the common cold:

- Runny nose
- Sneezing
- Stuffiness
- Mild cough
- There may be decreased appetite or difficulty feeding
- May be a fever

These symptoms usually last a day or two, followed by worsening of the cough, respiratory distress and the appearance of a wheeze (a high pitched whistling noise when breathing out).

BRONCHIOLITIS

TO THE PATIENT

Symbicort is an advanced inhaler that combines two different medicines (symptom controller and preventer), with the convenience and simplicity of one inhaler.

Ask your doctor about a free trial of Symbicort. Once you have discussed the possibility of using Symbicort, your doctor will know if Symbicort is the right treatment for you. Normal doctor consultation fees may apply.

PLEASE NOTE: Not everyone will be eligible for Symbicort due to government funding restraints. Please collect your Symbicort sample from your doctor.

TO THE MEDICAL PRACTITIONER

Please complete your details below and **Fax this form to AstraZeneca on 09 623 6301.**

Your AstraZeneca representative will then deliver the free trial sample of Symbicort. For immediate enquiries or for more information please call 0800 363 200.

Please send a free trial sample of Symbicort

MEDICAL PRACTITIONER

NAME

ADDRESS

PHONE

SIGNATURE

To the patient: Your personal information will be treated confidentially. Any details provided will only be used to communicate with you about your asthma and will not be used in any promotional activities to other parties. Please contact AstraZeneca if you wish to change or correct any personal information. All medicines have benefits and some may have risks. Use strictly as directed. If symptoms continue or you have side effects please contact your doctor.

Please tick this box if you do not wish to receive any further correspondence from AstraZeneca.

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risk of contracting an infection that may lead to bronchiolitis because they are in very close contact with a large volume of children of similar age. Very young children do not blow their noses, cover their mouths when they sneeze or cough and do not wash their hands frequently. It is important that children are supervised washing their hands before meals.

may sometimes be given to keep a child's airways open. Rarely, some babies are placed on respirators to help them breathe until their condition improves.

When should you contact your Doctor?

You should call or take your child to the Doctor if their condition worsens:

- Is breathing rapidly, especially if this is accompanied by neck and muscle retractions and/or wheezing
 - Become dehydrated. Nappies may be dryer than usual
 - Abnormal sleepiness
 - Has a high fever
 - Cough or wheeze is becoming worse
- You must seek immediate help if your child is having difficulty breathing, the cough, muscle retraction or wheezing is getting worse and if lips or fingernails show signs of blueness.

Can bronchiolitis be prevented?

The best way to protect your infant from this disease is:

- Frequent and thorough hand washing. Ask your visitors to wash their hands before handling your baby.
- Keep infants away from others who have coughs or colds
- Avoid exposing your child to cigarette smoke
- Avoid overcrowded locations e.g. supermarket, where there may be sick individuals.
- Use tissues when coughing or sneezing
- If you are unwell yourself, you may need to wear a facemask when feeding your baby.
- Keep away from crowds in enclosed places

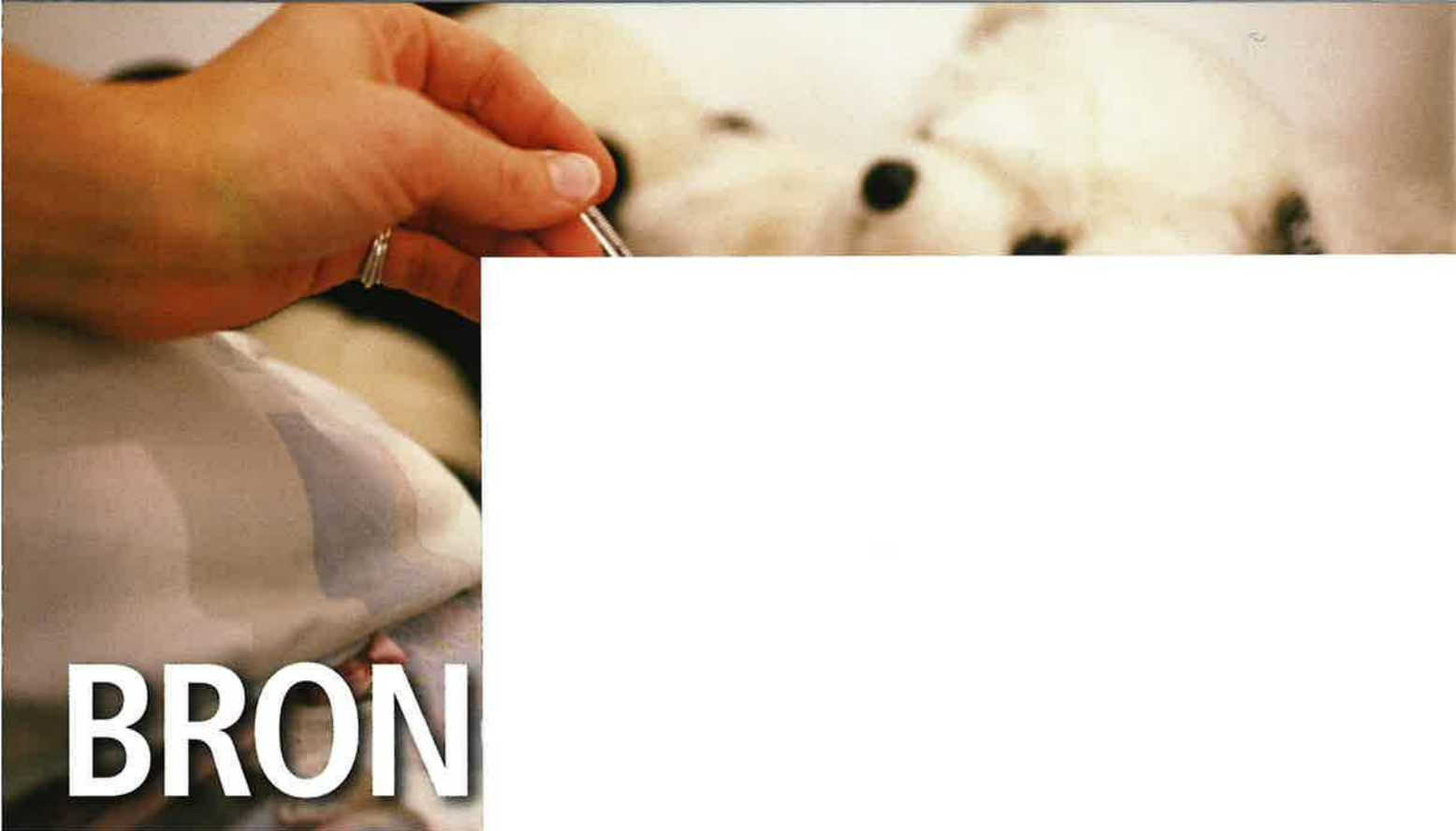
Will other children in the family catch bronchiolitis?

This disease is spread just like the common cold, through close contact with saliva and mucus, but older children don't get as sick as younger children do.

You can help prevent spreading this disease by keeping your sick child at home until they are well again. Make sure to wash your hands often and thoroughly after you have taken care of your sick child, to avoid spreading the virus to others.

REFERENCES:

- www.curekids.org.nz
- www.drgreene.com
- www.lpc.org.DiseaseHealthInfo
- www.kidshhealth.org
- www.medem.com
- www.pedscm.wustl.edu
- New Zealand Health Information Service/Information Analyst



BRON

COMPILED BY JUNE BELL

What is it?

Bronchiolitis is a common illness of the respiratory tract. It is caused by a respiratory infection that affects the tiny airways, called the bronchioles that lead to the air sacs. These airways become inflamed, they swell and fill with mucus, making it difficult for the child to breathe. (The term bronchiolitis is sometimes confused with bronchitis, which is an infection of the larger more central airways).

What causes bronchiolitis?

Bronchiolitis is usually caused by a viral infection, more commonly respiratory syncytial virus (RSV). RSV infection is responsible for almost half of all cases of the illness, and is an annual epidemic due to the high frequency of cases every winter. New Zealand's rate of infection is high and almost double that of the United States.

Other viruses involved may include:

- Parainfluenza virus
- Adenovirus
- Rhinovirus

The figures below show the total number, mean stay for inpatients, and day cases for the year 2000/2001 in New Zealand.

	Mean stay	Total	Daycases	0-	5-
Acute bronchiolitis due to respiratory syncytial virus					
Total	4.1	945	66	943	2
Male	4.0	519	41	517	2
Female	4.3	426	25	426	0

- It is more common in males
- It is more common in formula fed infants
- Those at high risk of developing asthma (hereditary)
- Children cared for in day care centres
- Children exposed to cigarette smoke
- Children living in overcrowded living conditions

- There may be decreased appetite or difficulty feeding
 - May be a fever
- These symptoms usually last a day or two, followed by worsening of the cough, respiratory distress and the appearance of a wheeze (a high pitched whistling noise when breathing out).

BRONCHIOLITIS

Sometimes more severe respiratory difficulties gradually develop appearing as:

- Rapid shallow breathing
- A rapid heartbeat
- Drawing in of the neck and chest muscles with each breath
- Flaring of the nostrils
- Irritability
- Difficulty sleeping
- Signs of fatigue

In severe cases, symptoms may worsen quickly. A child with severe bronchiolitis may tire from the work of breathing and have poor air movement in and out of the lungs, due to the clogging of the small airways. The skin can turn blue (called cyanosis), which is especially noticeable in the lips and fingernails. The child can also become dehydrated from working harder to breathe, vomiting, and taking in less during feeding. A dramatic reduction in the amount of fluid in the body causes dehydration, which can be a serious, even life threatening condition if left untreated. Children, especially babies and toddlers, are at a greater risk of dehydration than adults because they have less fluid reserves, and are sick more often.

Classic signs of dehydration are:

- Abnormal sleepiness
- Not eating or drinking
- Irritability or crying
- Fewer wet nappies
- Skin is hot and dry
- Dry mouth
- Body temperature may be near 40°C

Is it contagious?

The infections that cause bronchiolitis are very contagious. The germs are spread most commonly by contact or droplet transmission. They can spread in tiny drops of fluid from an infected person's nose and mouth. These become airborne when the person sneezes, coughs or laughs. They may also end up on articles the person has touched.

Infants in childcare centres have a higher risk of contracting an infection that may lead to bronchiolitis because they are in very close contact with a large volume of children of similar age. Very young children do not blow their noses, cover their mouths when they sneeze or cough and do not wash their hands frequently. It is important that children are supervised washing their hands before meals.

How long does it last?

Mild bronchiolitis may only last a day or two, but often it may be 5-12 days. The illness generally peaks on or about the second to third day after the child starts coughing and having difficulty breathing, and then gradually resolves. Children with severe cases may cough for several weeks.

How is it diagnosed?

Diagnosis is often based on the history of the illness and physical examination. Chest x-ray may give additional information, and oxygen level is assessed.

How is it treated?

There are no specific medicines for this illness. Steroids and antibiotics are not usually helpful. Antibiotics are not useful for treatment of viral infection and are only effective against bacterial infections.

- It is important to give plenty of fluids to prevent dehydration. Making sure a child drinks enough fluid may be difficult, because infants with bronchiolitis don't want to drink. Offer small amounts of fluid frequently. Your baby may prefer clear liquids rather than breast milk or a formula. Don't worry if they don't eat.
- To make breathing easier, a humidifier to keep the room moist is often used. Dry air can dry out airways and make the mucus stickier. Try running hot water in the shower or bathtub to steam up the bathroom, and sit with your child until their breathing becomes easier.
- Saline nose drops may be recommended. Keeping babies nose clear will give relief, helping baby feed and sleep easier. A babe with a blocked nose will find it difficult to feed.
- Sometimes, if applicable, tilting the child's mattress up slightly at the head may make it easier to breathe.

Children who are moderately or severely ill may be admitted to hospital for supplemental oxygen and intravenous fluids. Medication may sometimes be given to keep a child's airways open. Rarely, some babies are placed on respirators to help them breathe until their condition improves.

When should you contact your Doctor?

You should call or take your child to the Doctor if their condition worsens:

- Is breathing rapidly, especially if this is accompanied by neck and muscle retractions and/or wheezing
- Become dehydrated. Nappies may be dryer than usual
- Abnormal sleepiness
- Has a high fever
- Cough or wheeze is becoming worse

You must seek immediate help if your child is having difficulty breathing, the cough, muscle retraction or wheezing is getting worse and if lips or fingernails show signs of blueness.

Can bronchiolitis be prevented?

The best way to protect your infant from this disease is:

- Frequent and thorough hand washing. Ask your visitors to wash their hands before handling your baby.
- Keep infants away from others who have coughs or colds
- Avoid exposing your child to cigarette smoke
- Avoid overcrowded locations e.g. supermarket, where there may be sick individuals.
- Use tissues when coughing or sneezing
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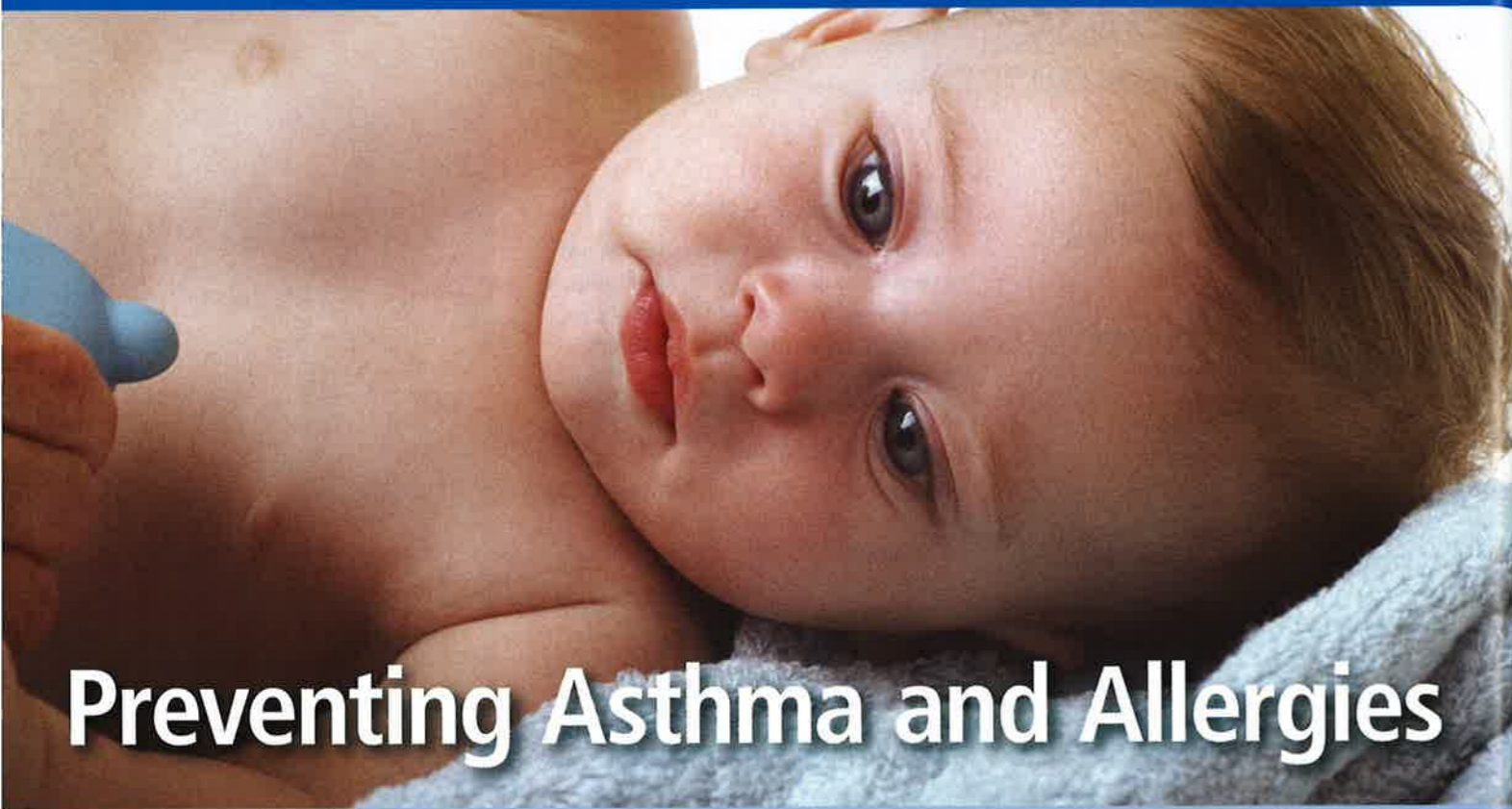
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REFERENCES:

- www.curekids.org.nz
- www.drgreene.com
- www.lpch.org.DiseaseHealthInfo
- www.kidshealth.org
- www.medem.com
- www.pedsccm.wustl.edu
- New Zealand Health Information Service/Information Analyst



Preventing Asthma and Allergies

WRITTEN BY MARLI MERHOYE

Anyone can develop allergies and asthma and both conditions are very common in New Zealand. It is estimated that the prevalence of asthma for children in New Zealand is 1:3 and there is evidence that this is increasing in New Zealand and worldwide.

Allergic diseases, such as asthma, eczema, hayfever, allergic rhinitis and food allergies are the most common allergic conditions in children with at least 10% of children suffering from some sort of allergy in the first few years of life.

An allergic reaction occurs when the body has an abnormal immune response to what are usually harmless substances in the environment. These substances may be from the things that we breathe in, eat, touch or that come in contact with the eyes or skin.

What are the chances of a baby developing asthma or allergies?

It is known that there is a greater possibility of a baby inheriting the tendency to develop allergies if there is a family history of atopy, especially a history of maternal atopy or if another member of the family already has eczema, asthma, hayfever, hives, allergic rhinitis, food allergies, recurrent ear infections or constant runny nose.

However, there is still a 5-15% chance of a child developing allergies even if neither parent is allergic.

If one parent is allergic the risk is 25% and this increases to 50-60% if both parents are affected with allergy.

The likelihood of an allergy developing depends on not just the genetics but also environmental factors. For an allergy or sensitization to an allergen to occur, the child must also be exposed to the potential allergen. Research suggests that this sensitisation can occur as early as 22 weeks in the pregnancy, which is why it is recommended that preventive measures start as early as possible in the pregnancy. The next most crucial stage to implement the preventive measures is in the first few months of the baby's life.

Other risk factors include if:

- The baby is the first-born.

- The baby is born in spring or early summer, when the pollen count is high.
- The mother of the baby smokes during pregnancy and/or the baby is exposed to second-hand smoke after birth.

How to reduce the risk of the development of allergies

At present, there is no known cure for asthma or allergies once they have developed therefore much research is focused on preventing allergies.

Some risk factors are unavoidable such as genetics but research suggests that by taking a few basic steps in implementing preventive measures, then the incidence of asthma and allergies can be reduced, especially among children with allergic heredity.

These preventive strategies focus on reducing:

- High allergen exposure such as house dust-mite, mould, pollen and certain foods.
- Environmental factors such as cigarette smoke, gas fumes and air pollution.

PREVENTIVE GUIDELINES

During Pregnancy

Allergen Exposure

- Avoid eating peanuts and other nut products including Peanut Butter, Nutella or nut oils as much as possible. Be aware

of products containing peanut oil, also called "arachis oil" that may be found in some nipple creams and bath products.

- Foods such as shellfish should be eliminated and other foods like eggs and fish kept to a minimal level. Milk intake should be kept at the recommended daily intake of calcium for pregnant women of 1200mg/day, but avoid indulging in more than this.
- If the mother-to-be has asthma or allergies, especially to dust-mite, animals, mould or pollens, then keeping these controlled and minimising the number of allergic reactions will help reduce the likelihood of the baby becoming allergic.
- If the mother-to-be does not have allergies, there is some evidence to suggest that by reducing her exposure to key allergens such as mould, house dust-mite and pollen that this may reduce sensitisation of the baby in-utero or during pregnancy. Therefore it is recommended that preventive measures for these allergens should be implemented.
- Research also indicates that women exposed to high pollen counts in the last 12 weeks of their pregnancy were more likely to have a baby who develops early asthma.

Environmental Influences

- Be smoke free!! Every time a pregnant woman smokes, harmful chemicals get into her blood and her baby's blood.



Smoking increases the risk of the baby developing allergic diseases significantly.

After the Birth

Allergen Exposure

- While breastfeeding the potential for sensitisation can still occur, therefore continue to avoid eating peanuts and other nut products including Peanut Butter, Nutella or nut oils as much as possible. Be aware of products containing peanut oil, also called "arachis oil" that may be found in some nipple creams, nappy rash creams and bath products.
- While breastfeeding, continue to avoid shellfish. Other foods like eggs and fish keep to a minimal level. Milk intake should be kept at the recommended daily intake for breastfeeding women, 1200mg of calcium, but avoid indulging in more than this. If there is a need to avoid more foods be careful that nutritional needs are met by taking the advice of a registered dietician.
- If breastfeeding is not possible and there is a strong family history of cows' milk allergy, then the use of a hypoallergenic formula may be needed, discuss this with an allergy specialist, paediatrician, plunket nurse, midwife or dietician.
- Provide a low dust-mite allergen environment for the baby from birth by following the recommended guidelines on reducing dust-mite allergy. This includes using a dust-mite allergen barrier bedding cover for the baby's bed and washing this every month. These covers are available from Asthma Auckland.
- Avoid having soft toys around the baby, especially older stuffed toys, as they will contain high amounts of dust-mite allergen.
- Do not introduce any foods before 4 months and ideally not before six months if possible. The earlier a child is exposed to potential food allergens, the greater the risk of allergy developing. Therefore by delaying the introduction of food, especially the more allergenic foods until the child is older, the risk of allergy is reduced.
- If needing to start earlier than 6 months, introduce one new food at a time per

week. Babies that are started on more than 5-6 different foods before 6 months tend to develop atopic reactions, such as eczema.

- First foods to be introduced are the least allergenic foods such as, pears, yellow vegetables, (kumera, pumpkin, marrow, kamo kamo) and baby rice. Each individual food should be introduced slowly, one new food each week, increasing the amount gradually. Ensure all foods are cooked, including fruits. Once a food has been introduced with no sign of intolerance or allergy, then it can be mixed with other safe foods.
- At 8-9 months old, oats, green vegetables and meats can be given.
- Wheat and soy can be given at 9 months but ideally 12 months.
- Cows milk: 12 months
- Eggs: 18-24 months
- Nuts, peanuts, fish and shellfish: 36 months
- If there is a strong family history of allergy then it is better if foods such as peas and other legumes, tomatoes, citrus fruits, ham, bacon and processed meats are given after 12 months old. Likewise, delay berry fruits, chocolate, spices, colourings and artificial flavourings till 2 years.

Environmental Influences

- Avoid exposing the child to tobacco smoke, air pollutants, strong odours or chemical fumes.
- Aim to exclusive breastfeed (no formula or solids) for a minimum of 4 months and ideally 6 months if possible.
- Avoid using sheepskin for the baby or near the baby, as they will contain high levels of dust-mite allergen.
- Avoid build up of mould and dampness in the home by having good ventilation and implementing preventive measures for mould.

How healthy is your home?

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When should you replace your metered-dose inhaler?

WRITTEN BY ANN WHEAT



- Do you use every last drop of medication that is in your metered-dose inhaler, (MDI)?
- Do you know how many doses the company who manufactures your MDI say are in the MDI?
- Is it safe to check if your MDI is empty by putting it into water to see if it floats?

These are some of the questions you need to ask yourself if you use a MDI.

Rubin & Durotoye, (2004) state that up to 74% of people using a MDI will continue to use their inhaler till they see no more coming out during actuation (pressing down on the canister). This is despite the fact that most manufacturers state the number of doses that is in each MDI. It is important to realise that when taking your medication the MDI delivers a propellant and will continue to expel propellant despite all the doses of medication being used. In fact Rubin & Durotoye (2004) state that depending on the type of MDI, there can be between 52 – 86% more actuations in each canister than the nominal dose. Shaking the MDI prior to use can increase the number of actuations. This is particularly true for canisters that have CFC's. (Chlorofluorocarbons) in them.

So is it safe to put a canister into water to see if it floats? This can be quite dangerous as up to 27% of the time this can block the valve of the inhaler (Rubin & Durotoye, 2004) and it is also an ineffective way of telling that the inhaler is empty because it does not always float to the level of medication available.

The best way to tell that your inhaler needs replacing, is to either write on the inhaler itself or on a calendar the date that the inhaler was commenced and then work out by doses to be used when it will need replacing. For example, as there are 120 doses of medication in some MDI's and if you use 2 puffs twice a day, then your inhaler will last 30 days. If it started on the 1st of January, then you will need to start a new inhaler

on the 31st January. If you have 1 puff and you start on the 1st January, then you will need to start a new one on 2nd March.

One problem that does arise is using a MDI infrequently such as a short acting beta agonist, such as Ventolin. As there is no easy way to know that your MDI has used its recommended dosage, it is important to keep a record of how many doses have been used. This will then enable you to replace it at the correct time.

NOTE: Remember to check how many doses that your MDI has in it before you start to use it. Try working out from the number of doses you use each month, this will give you an estimate of when it will be finished. Write the date you need to start a new MDI either on the old one or on a calendar. Never use a MDI to empty.

REFERENCE

Rubin, B. K. & Durotoye, L., (2004). How Do Patients Determine That Their Metered-Dose Inhaler Is Empty? Chest. 126: 1134 – 1137.
Who Has the Most Severe Asthma?

Do you know who has the most severe asthma? Is it boys or girls? Is it adult males or females? If you said boys then you are partly correct. If you said adult females then you are also partly correct. It has been long suspected that severe asthma is different for children than for adults. In fact, males under 18, account for 62% of the most severe asthma but in adults over the age of 18, 68% are female (Jenkins, Cherniack, Szefer, Covar, Gelfand & Spahn, 2003). This finding is also true for mild to moderate asthma. There is no real understanding

about why this occurs, but there is speculation that women's hormones or the difference in size of male and female lungs could play a part in this phenomenon.

It is also worth noting that children who have severe asthma have deceptively good lung function and as a result are often under treated. (Jenkins et al., 2003). The rate of decline of lung function in children who continue on to have adult asthma and people with adult onset asthma is much the same when measured in adulthood. This finding shows that when adults develop asthma in adulthood, they have a much quicker rate of decline in lung function than children whose asthma continued into adulthood, where the decline is much slower. Jenkins et al., (2003) say the reason for this rapid decline in adult onset asthma is unclear.

NOTE: It is important to treat asthma in children, no matter how satisfactory their lung function is. Boys are known to have more severe asthma but they also have a better response to glucocorticoids.

REFERENCE

Jenkins, H. A., Cherniack, R., Szefer, S. J., Covar, R., Gelfand, E. W. & Spahn, J. D. (2003). A Comparison of the Clinical Characteristics of Children and Adults with Severe Asthma. Chest. 124:4, 1318 – 1324.

CONGRATULATIONS

Asthma New Zealand – The Lung Association & Unitec School of Health & Community studies congratulates the following registered nurses who successfully completed their certificates in Asthma Nursing course in December 2004.

- | | |
|-----------------------------|--------------|
| 1. Anne Maureen Ashwell | Whangaparaoa |
| 2. Moira Catherine Ashworth | Auckland |
| 3. Elaine Barrington | Rotorua |
| 4. Stephanie Blennerhassett | Whangaparaoa |
| 5. Petrina Boyd | Nelson |
| 6. Sharon Burrell-Smith | Christchurch |
| 7. Yvonne-Marie Clearwater | Auckland |
| 8. Terri Dow | Auckland |
| 9. Carol George | Waikanae |
| 10. Gene Hill | Tauranga |
| 11. Vicki Jamieson | Auckland |
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| 13. Lorraine McAdam | Wellington |
| 14. Marlinee Merhoye | North Shore |
| 15. Sandika Naidu | Auckland |
| 16. Te Aroha Ogbeni | Auckland |
| 17. Hayley Maree Passau | Onewhero |
| 18. Christina Watson | Christchurch |



Asthma nursing course and Chronic Pulmonary Disease Nursing Course (COPD) Information

The primary aim of Asthma and Chronic Obstructive Pulmonary Disease (COPD) Nursing Courses is to provide nursing health professionals with a high level of Asthma and/or COPD knowledge that promotes best practice, based on available evidence, and is consistent with national policy. The programmes are offered by distance learning with support from Frances Dower Unitec lecturer and Janette Reid, Asthma New Zealand's National Educator. The Asthma Nursing Course is accredited

with 24 credits, COPD Nursing Course is accredited with 12 credits, which can be used towards gaining a Bachelor of Nursing degree. The value of a level 7, 24-credit course, which is done through a tertiary education establishment, is \$800.00. At present Asthma New Zealand – The Lung Association is providing grants of \$550.00 for each student towards the cost of the course, as a result students will be asked to contribute \$250.00. Cost of the COPD Nursing course is \$400.00 but a grant of \$200.00 is available to practice nurses/community nurses from Asthma New Zealand/The Lung Association. In the four years since commencement of the Asthma Nursing Course 500 nurses have enrolled over 11 Intakes. In the second year of commencement of the COPD Nursing Course 75 nurses enrolled over four intakes.

The society has decided to make the course available at such a low cost to benefit nurses with a special interest in asthma, and increase the knowledge of nurses throughout New Zealand.

Applications are now invited from nurses wanting to enrol on the Asthma & COPD Nursing Courses in June 2005.

The closing date is 14th June 2005.

For information regarding Asthma & COPD Nursing Courses please email swarnah@asthma-nz.org.nz

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Advertisements**

Asthma Update welcomes dialogue with readers. Whether you are a person with asthma, a company involved in the sector, or a potential advertiser, we welcome your enquiries and communication.

Contact:

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581 Mt Eden Road, Auckland
Phone (09) 623 0236
Email anz@asthma-nz.org.nz**

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