

# Kidney Health

## NEW ZEALAND

Prevention • Support • Research

**AUTUMN 2009**



**Kidney Health Week:** Middlemore renal nursing staff assisted with screening staff from the Contract Bottling Company – Lion Nathan, for signs of kidney disease during Kidney Health Week.

Welcome to the Autumn edition of our newsletter for 2009. We have certainly had a busy start to the year, particularly in the lead up to Kidney Health Week. As this week incorporates National Just Water week and World Kidney Day there is always a lot to organise to ensure each event has the appropriate resources and information needed to make the week a success.

## KIDNEY HEALTH WEEK

As with every campaign it is always very difficult to measure how successful the week was, the media tend to be more interested in sensational stories, despite the fact, I think, trying to detect kidney disease early so it can be treated to slow its progression, and educating people about the risk factors to kidney disease is fairly sensational in itself. In general we were pleased with the publicity we received from National Radio, CTV, Maori Radio (Radio Waatea) and several local newspapers from throughout the country.

Lion Nathan, a national organisation with sites in all the main cities, including three in Auckland, kindly agreed to let us come in and screen and educate their staff for signs of kidney disease during Kidney Health Week. Staff had their blood pressure taken and urine tested for signs of protein, each staff member was given written information about kidney disease and the opportunity to speak to a nephrologist and/or renal dietitian (at the Grafton and Khyber Pass sites). Nursing and medical staff from the four main renal units in the cities we visited made it possible for this project to happen with support and assistance throughout the days. We referred 12.5% of the staff we tested (these were staff with high blood pressure and /or protein in their urine) on to their GPs for further investigation. Although this is a large number, it is encouraging to know we have been able to identify the problem early.



*Sandy Speedy, Dr John Collins and Chrissy Taylor during the screening of staff at the Lion Nathan site in Auckland.*

Our, now annual, visit to Parliament was another successful event, with a very busy day spent screening MPs and Parliamentary staff for signs of Kidney Disease, once again the enthusiastic team from the Wellington Renal Department made it a very worthwhile day with their assistance, we also referred between 10 – 12% of staff on for further investigations.

Once again the success of this week could not have happened without the help and support of the staff from Auckland, Middlemore, Wellington, Christchurch and Dunedin's renal units, we are very grateful for all of their efforts

The team from Waikato once again took part in the Round the Lake Taupo Race, a huge undertaking, especially as some of the team were also heavily involved in organising the Australasian Renal Society conference. Of course the tee shirts received plenty of comments. Well done.

We were very pleased with the number of schools who registered for National Just Water Week, with over 300 schools receiving our resource packs, an increase of over 100 schools. It is very encouraging to see the schools supporting the “water is best” message.

## **CURRENT ACTIVITIES**

I have been busy with a variety of different activities, including speaking engagements for groups talking about Chronic Kidney Disease. I was also fortunate enough to attend the Annual Renal Society of Australasia Conference held in Rotorua recently. The theme for this conference was “Lessons from the past, knowledge for the future.”

With around 300 of our colleagues from Australia making it across the ditch to attend this meeting it was a great opportunity to showcase our country and share some of our experiences with our renal patients and the initiatives being taken to improve the care of renal patients.

The following is a brief summary of some of the speakers and topics covered.

The Master of Ceremonies, Ngahihi o t era Bidois, was quite inspirational, receiving a standing ovation following his keynote address. He talked about leadership, health and personal development. He spoke proudly of his Maori culture and was able to link some of the Maori traditions into his presentation, his tagline being “Ancient Wisdom and Modern Solutions”. Ngahihi also shared his own personal experience when he had turned his back on his culture for a time and then found his way back. He also was able to integrate some of the Maori language throughout the conference teaching many of us ways to show respect and some phrases commonly heard in New Zealand.

Dr Joanne Bargman, Director of the Peritoneal Dialysis Unit and co-director of the Renal Rheumatology Lupus Clinic at the University Health Network in Toronto, spoke about the Innovations in PD and where to in the future for PD. Dr Bargman talked about the benefits of peritoneal dialysis, in particular the fact that this treatment option preserves residual renal function longer. She talked about the increasing concern around organisms that are becoming increasingly resistant to antibiotics. Dr Bargman also talked about the advances in the types of PD fluid available now to help with fluid retention and protein loss.

Dr Maggie Fisher, Clinical Director of Renal Medicine at Waikato Hospital, gave an overview of the numbers with End Stage Kidney Disease in the Midland region. 459 patients in this area receive renal replacement therapy (RRT), which is a significant proportion of New Zealand’s total of 2171 people receiving some form of RRT (this is just the dialysis population). More than half of the patients in the Midland region have diabetes as the cause of their kidney failure. 62.7% of the Maori patients in the region have kidney failure as a result of diabetes. Dr Fisher talked about the research currently underway in their unit; this involves intensive lifestyle interventions and multidisciplinary approach, in other countries who have undertaken this study (based on previous research) it has shown to reduce the risk of developing

Type 2 diabetes by as much as 58%. She talked about the need to increase awareness of Chronic Kidney Disease and promote screening, especially those with first degree relatives with Chronic Kidney Disease; otherwise they will be our next generation!!!

Professor Stephen Munn, Director of liver, pancreas and kidney transplantation at Auckland City Hospital told the audience there are currently 559 people waiting for a kidney transplant in New Zealand. He talked about the need to increase donor numbers and that they had recently commenced donation after cardiac death. Other initiatives include the ABO incompatible donors and the two way paired donor exchange. Professor Munn gave the audience an opportunity to share their thoughts on the issue of compensation for live kidney donation, giving us three different options and asking us to raise our hands for the one we thought was acceptable. It was interesting to note the consensus was generally with increasing payments to live donors, with a few indicating providing a significant one off payment as being a good option. No doubt the issue of payment for live donation will continue for some time yet.

Dr Peter Sizeland, Renal Physician at Waikato Hospital, gave a talk entitled "Modern medicine response to alternative therapies" and was less than enthusiastic about some forms of alternative therapies, although felt there could be some merit in a handful. In a later presentation Dr Sizeland gave an update on the latest ANZDATA report. I have included some of the updated data later in this edition.

Another speaker to tell his inspirational story was William Pike, a primary school teacher. William was mountaineering on Mt Ruapehu on 25<sup>th</sup> September 2007 when the mountain unexpectedly erupted. He suffered crush injuries to his legs and acute renal failure. William gave an incredibly detailed account of the events that led to his having his leg amputated and some of the other serious injuries he received. He then spoke about his recovery and how grateful he was to all those who had been involved in his rescue and subsequent care. He plans to climb the mountain again in the near future.

There were many more speakers who gave some very informative sessions, with a variety of topics ranging from the use of Medihoney in wound care to effective management of renal bone disease and much more.

The social functions were very well organised and certainly provided lots of opportunity for networking with other conference attendees.

## **KIDNEY HEALTH NEW ZEALAND'S KIDNEY HEALTH WEEK, INCORPORATING NATIONAL JUST WATER WEEK AND WORLD KIDNEY DAY**

World Kidney Day, marked on Thursday, March 12, is a major part of National Just Water Week. World Kidney Day aims to raise awareness about the role of the kidney in health and the need for early screening for people at increased risk of kidney disease. The theme for 2009 is "Keep the pressure down" to highlight the role of blood pressure as one of the key symptoms and causes of CKD (chronic kidney disease).

Blood pressure measures the pressure within your arteries and the resistance your heart has to pump against to get blood to flow around the body, including the kidneys. Normal blood pressure delivers an effective blood supply to all parts of the body. One in five New Zealanders have high blood pressure, known as hypertension. High blood pressure can independently cause CKD,

contribute to its development or even be the result of CKD. About four out of five patients with CKD have high blood pressure. Treatment of raised blood pressure slows the progression of CKD and makes it less likely that a patient will require dialysis or suffer from heart or other cardiovascular diseases. The treatment of high blood pressure is the most important part of the management of CKD.

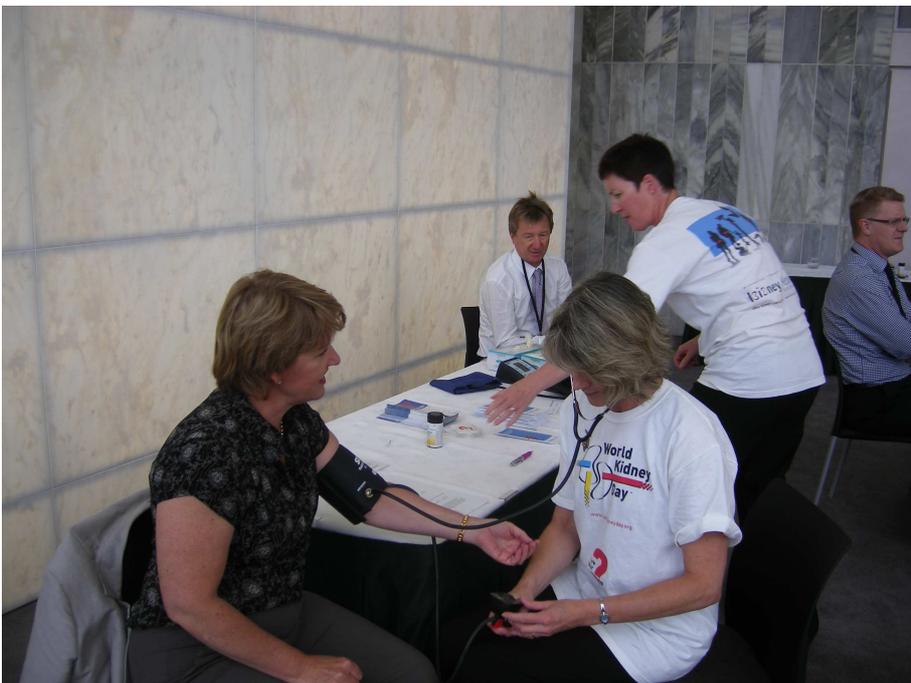
Lifestyle changes, including regular exercise and a diet low in salt and unsaturated fats, can have a profound impact on blood pressure and overall health. Weight loss of as little as three to four kilograms can have a dramatic impact on blood pressure, and it can also be lowered by drinking less alcohol. Stopping smoking also reduces the chances of getting heart or kidney disease. In addition to lifestyle changes, most people with hypertension will require medication to achieve the desired lowering in blood pressure. Some drugs, such as ACE inhibitors, offer kidney protection as well as the other benefits of lowering blood pressure, particularly in people with diabetic kidney disease. Around one adult in 10 has some sign of CKD, but most do not know it.

CKD increases the risk of heart disease and stroke tenfold. The treatment of kidney failure is expensive, and in New Zealand costs at least \$100 million a year. Kidney Health New Zealand estimates that there are about 200,000 people in New Zealand with significant CKD.

People who are at the greatest risk of developing kidney disease include Maori and Pacific people, those aged over 50, those who smoke, have high blood pressure or diabetes, and those with a family history of kidney disease. CKD is usually silent until well advanced and early detection offers the chance of prevention or slowing the progress of established kidney disease.

CKD is easily detected by the measurement of blood pressure, a simple test for protein in the urine and a blood test to estimate kidney function.

National Drink Water Week will focus on education about kidney health and the benefits of drinking water when thirsty, rather than sugar-containing drinks, in order to prevent obesity and diabetes.



*Jo Goodhew MP has her blood pressure check at Parliament on World Kidney Day*

## **WHAT ARE THE NATIONAL RENAL ADVISORY BOARD AND THE MINISTRY OF HEALTH DOING FOR PEOPLE WITH KIDNEY DISEASE?**

The National Renal Advisory Board has been functioning in its current form since 2003. The Board's members are health professional and managers from throughout New Zealand.

The Board's purpose is to support improvement in renal services for patients by:

- Providing expert advice on all aspects of renal service provision
- Identifying priorities for renal service development
- Advising on renal service development at a DHB, regional or national level
- Developing and maintaining renal care standards
- Ensuring audit activities of renal services are undertaken regularly
- Involving consumers in decision making
- Promoting the monitoring of chronic kidney disease.

The Board meets three times a year and from time to time convenes a consultation meeting with stakeholders. The current work streams of the National Renal Advisory Board are:

- Establishing standards for and auditing of dialysis care. An annual report prepared by the Standards and Audit subcommittee is sent to all patient support groups.
- Improving access to and outcomes of transplantation. There is a Transplantation subcommittee of the board charged with this work
- Liaison with NZ Board of Dialysis Practice and the Renal Society of Australasia's Nursing Advisory Group
- Liaison with Kidney Health New Zealand
- Workforce development, including dialysis technician training
- Providing guidance on appropriate use of dialysis treatment
- Working with the Ministry of Health on the Renal Service Improvement project

The Board has been fortunate to have the support of Stephen McKernan, the Director General of Health, for its work. An initial scoping paper by Dr Adrian Field on renal services in New Zealand was funded by Counties Manakau DHB when Stephen McKernan was CEO. Now the Ministry has a Renal Service Improvement Project headed by Nick Polaschek as the Senior Project Manager. People from Wellington may remember Nick as a senior dialysis nurse at Wellington Hospital. Work is being carried out in the following areas:

1. Improving Chronic Kidney Disease management in primary care
2. Increasing the rates of renal transplantation, including reviewing the national funding of transplantation, community attitudes to transplantation and financial support for living kidney donors.
3. Improving regional coordination and planning of kidney failure services
4. National coordination in renal workforce development
5. Improving information about and for renal patients

The National Renal Advisory Board has resolved to include a consumer representative on the Board. Kidney Health New Zealand has been charged with consulting with community groups and to then nominate this new Board member.

Please contact Kidney Health New Zealand if you want to receive further information on the proposed role of the consumer representative.

***Chronic kidney disease is common, harmful and treatable.***

Professor Kelvin Lynn, Medical Director of Kidney Health New Zealand

[kelvin.lynn@cdhb.govt.nz](mailto:kelvin.lynn@cdhb.govt.nz) [www.kidneys.org.nz](http://www.kidneys.org.nz)

**Causes of Chronic Kidney Disease** (*amended from So you have Kidney Disease brochure – Renal Resource Centre*)

Most of the causes of chronic kidney disease are diseases which are not noticed until late in the progress of the disease. Some of the major causes of chronic kidney disease are:

1. Diabetic Nephropathy ( kidney damage resulting from “sugar” diabetes)
2. Hypertension (high blood pressure)
3. Glomerulonephritis (inflammation of the kidney filters)
4. Reflux Nephropathy (kidney damage caused by a leaking valve in tube from the kidney to the bladder allowing urine to gush back into the kidney)
5. Polycystic Kidney Disease (cysts in both kidneys, not detectable in adolescence, and familial – can be passed on)

**Symptoms of Kidney Disease**

There are no symptoms of renal failure until late in the course of renal disease. Problems which contribute to progressive renal disease often have no symptoms. These include high blood pressure, biochemical abnormalities (blood results) such as raised serum phosphate or cholesterol levels, and even urine infections.

Regular check-ups and blood tests are essential to detect and control these problems and prevent or delay renal failure.

The important clues to the presence of kidney disease and kidney failure are abnormal urine tests, high blood pressure, and reduced kidney function which can be judged by a blood test. Abnormal kidney function may cause a person to get up at night to pass urine on a regular basis, or urine to have an abnormal colour.

**How is Kidney Failure Measured?**

The progression of kidney damage is marked by rises in two important chemical substances in blood; creatinine and urea. Creatinine is produced from muscles and is excreted (got rid of) through the kidneys. Urea comes from protein in food (e.g. red and white meat) and is also filtered into the urine by the kidneys. So when there is kidney damage with the loss of the kidney filters this results in the increase of creatinine and urea levels in the blood.

The normal range of these are (bearing in mind values can be slightly different from Lab to Lab)

Creatinine	50 -110 umol/L
Urea	2.7 – 7.8 mmol/L

In kidney failure a rise in the creatinine is also accompanied by increases in blood urea level and the level of other waste products such as uric acid and phosphates.

Calculations based on serum creatinine, the age and gender of a person are used to estimate more precisely the degree of kidney function or Glomerular Filtration Rate (eGFR).

Calculated or measured GFR has a normal range of 90 – 120ml/min. For ease, this is referred to as 100% kidney function. For example, if GFR is 15ml/min, that is said to represent approximately 15% of kidney function. GFR varies with age. So at 70 years GFR on average is often only 60 – 70 % of the normal.

The stages of Chronic Kidney Disease are divided in five stages or levels.

**Stage 1 CKD** (kidney function 90 – 100%)

Overall kidney function is good but kidneys show other signs of disease. This may be protein loss or structural damage seen on an X-ray or ultrasound.

**Stage 2 CKD** (kidney function 60% - 89%)

Kidney damage is mild with a slight drop in GFR to 60 – 89 ml/min. The serum creatinine is generally around the upper limit of normal or slightly higher. Generally most other blood tests are normal. Good blood pressure control and possibly some dietary modification will usually delay and sometimes prevent progression to the next stage.

**Stage 3 CKD** (kidney function 30% - 59%)

The estimated GFR further reduced to 30 – 59ml/min. The serum creatinine is elevated and there are more widespread abnormalities in blood tests. Symptoms of kidney failure may become apparent, including nocturia (up often at night to pass urine), tiredness and lack of energy, odema (usually swelling of the ankles). Increased medication may be required to control blood pressure.

**Stage 4 CKD** (kidney function 15% - 29%)

The estimated GFR reduced to 15 – 29 ml/min. Serum creatinine will be significantly raised. People with this level of kidney function may have symptoms varying from almost unnoticeable to quite severe, this can depend on the underlying cause of kidney failure and other associated illnesses. This is a wide range of abnormalities in hormone levels as well as routinely measured biochemistry. Anaemia (not enough red blood cells) has usually (but not always) appeared and become severe requiring treatment.

Good blood pressure control is important to reduce the risk of cardiovascular diseases, including heart attacks and strokes. Treatment to prevent bone disease, usually with medications, is also important at this time.

**Stage 5 CKD** (kidney function less than 15%)

This is the stage of chronic kidney disease where function is severely damaged. Estimated GFR is reduced to tiredness, pins and needles in the hands and/or feet. The aim is to commence some form of renal replacement therapy (dialysis or transplant) before symptoms become worse.

Dialysis improves many of the symptoms of kidney failure, but problems including high blood pressure. Anaemia and itch require additional drug treatments as well.

If you have any questions regarding the above information phone 0800 543649 (KIDNEY)

## LATEST NEWS

### Patient Travel Allowance Increased

The mileage allowance that patients can claim under the National Travel Assistance (NTA) policy has been increased from 20 cents to 28 cents per kilometre. The NTA policy is for patients who are referred by a specialist to another specialist and the patient has to travel long distances, or travel frequently, for appointments. The maximum accommodation rate for eligible clients has also been increased to \$100 per night for all of NZ. Information about who is eligible for travel assistance is available from the Ministry of Health's website: <http://www.moh.govt.nz/travelassistance>

## CHRONIC KIDNEY DISEASE SCREENING GP GUIDE

**On April 6<sup>th</sup> the Management of Chronic Kidney Disease GP Guide was launched by Kidney Health New Zealand with every GP in the country receiving a copy.**

Kidney Health New Zealand is committed to the well being of people affected by kidney disease. This commitment includes support for the prevention and early detection of kidney disease including access to best practice treatments.

Kidney Health New Zealand has developed a concise guide for primary care on the Management of Chronic Kidney Disease. The Guide is based on a larger document produced by Kidney Health Australia and their permission to modify that guide is gratefully acknowledged. Consultation has taken place with the Ministry of Health, the Royal New Zealand College of General Practice, some members of the New Zealand Guidelines Group and a number of general practitioners and nephrologists.

Kidney Health New Zealand hopes that the Guide will be useful for you in the management of people with chronic kidney disease and facilitate appropriate referral to nephrology services.

Further copies of the Guide are available from Kidney Health New Zealand at the 24 St Asaph Street, Christchurch 8011.

**Footnote:** We have received positive feedback from GPs and are looking at a reprint in the near future.

## RECENT STATISTICS FOR NEW ZEALAND (from [www.anzdata.org.au](http://www.anzdata.org.au))

- As at 31<sup>st</sup> December 2007 there were 3,353 people receiving renal replacement therapy (RRT). Of these, 1,289 had a functioning transplant, and 2,064 received dialysis treatment.
- 461 people commenced RRT in 2007. The main causes being:  
Diabetic Nephropathy 41%  
Glomerulonephritis 25%  
Hypertension (High Blood Pressure) 11%
- There were 123 kidney transplants performed in 2007, of these 58 of these were from live donors, compared to 49 live donors in 2006
- The number of patients who were dialysis dependent at 31<sup>st</sup> December 2007 (2,064) was an increase of 3% over the previous year. 51% of all dialysis dependent patients were receiving home dialysis. 70% of these were on peritoneal dialysis.
- For primary deceased donor grafts performed in 2005 – 2006, the 12 month patient and graft survival rates were 96% and 90% respectively.

# BROCHURES & FACT SHEETS AVAILABLE FROM KIDNEY HEALTH NZ

Blood Pressure and Kidney Disease  
Diabetes and Kidney Disease  
Kidney and Urinary Tract Health for Women and Men  
Organ Donation for life  
Urinary Tract Infections  
Kidney Donations  
Reflux Nephropathy  
IgA Nephropathy  
Kidney Stones

Kidney Disease is a Silent Killer  
Skin Cancer Fact Sheet  
Car Bumper Stickers  
Six Warning Signs of Kidney and Urinary Tract Disease  
Need a reason to talk about the benefits of kidney donation  
Poster  
Kidney Disease in Maori and Pacific Islanders - **English**  
Kidney Disease in Maori and Pacific Islanders - **Maori**  
Kidney Disease in Maori and Pacific Islanders - **Samoan**  
Kidney Disease in Maori and Pacific Islanders - **Tongan**

You can also visit our website:  
[www.kidneys.co.nz](http://www.kidneys.co.nz)

or you can call our Information Line  
'0800 KIDNEY' (0800 543 639)

**Yes, I want to help in the fight against kidney disease and support**

## Kidney Health New Zealand

\$100    \$50    \$20    \$10   or Other \$.....

Enclosed is a cheque payable to the Kidney Health NZ, or please charge:-  
 Mastercard                       Visa

Account number:

Expiry Date: .....                      Signature: .....

### Please indicate if you would like:-

- A receipt for your donation
- Information about making a gift to Kidney Health NZ in my Will.
- Information about kidney donation/transplants.
- More information on general kidney health.
- To become a member of Kidney Health NZ

Name: .....

Address: .....

### ***Thank you for your support.***

Please return this form to: 24 St Asaph Street,  
Christchurch, Phone: 03 353 1240

Website: [www.kidneys.co.nz](http://www.kidneys.co.nz), Email: info@kidneys.co.nz

