



World Kidney Day raises awareness of screening, early detection

Diabetes, high blood pressure key risk factors of Chronic Kidney Disease

March 12, 2009 (TORONTO) – For many Canadians diagnosed with diabetes and high blood pressure, Chronic Kidney Disease (CKD) is likely not a concern. It should be. This World Kidney Day, The Kidney Foundation of Canada is highlighting the importance of high blood pressure and diabetes as key factors in placing Canadians at greater risk of developing this commonly progressive, yet often treatable, disease.

An estimated 2 million Canadians either have CKD or are at risk for developing it. Diabetes is the cause of CKD in more than one-third of patients. Vascular disease causing high blood pressure is the root for 19.5 per cent of patients. Other ailments including anaemia and cardiovascular disease also increase the risk, making CKD a growing concern in the Canadian healthcare community.

“Early and comprehensive screening for those at risk of kidney disease is the best way to ensure that they become aware of their condition and associated health risks,” says Dr. James Scholey, Staff Nephrologist, Toronto General Hospital. “It is essential to providing the best medical care in order to try to slow and prevent disease progression.”

The Canadian Society of Nephrology (CSN) has published Clinical Practice Guidelines for the Management of CKD. “The Canadian guidelines are a critical set of tools for both front-line practitioners and specialists,” says Dr. Barbara Ballermann, President of the CSN. “The guidelines will help achieve treatment targets for patients with CKD, preventing or slowing progression to end-stage renal disease.”

As Chronic Kidney Disease progresses, there is a tendency to see the development of blood vessel disease which may include a build up of calcium in the walls of these vessels. Moreover, studies indicate that there is a large burden of cardiovascular disease in those with CKD. The outcomes of the cardiovascular disease tend to be worse the lower the level of kidney function.

However, much is being done to reverse this negative trend.

World Kidney Day is an annual event held on the second Thursday of March in over 100 countries. “World Kidney Day is an opportunity to raise awareness about risk factors for kidney disease. It’s also a call to action, asking Canadians to monitor their health and improve their lifestyle and diet to minimize risk,” says Paul Shay, National Executive Director of The Kidney Foundation of Canada. “Education is one of the keys to battling CKD and as awareness is raised around risk factors such as high blood pressure and diabetes, more patients will be able to manage their health and prevent disease progression.”

The Kidney Foundation of Canada will be organizing World Kidney Day events in cities across the country. Please visit The Kidney Foundation of Canada online at www.kidney.ca for information on public awareness activities and screening events happening in your community.

For more information on World Kidney Day, please visit www.worldkidneyday.org.

About Chronic Kidney Disease

Chronic Kidney Disease (CKD) is the presence of kidney damage or a decreased level of kidney function for a period of three months or more. Diabetes, high blood pressure, anaemia and cardiovascular disease are the most common causes of CKD.

The disease is divided into five stages depending on the severity of the damage to the kidneys.

Stage 1: Patients have more than 90 per cent kidney function

Treatment – Identify and try to reverse the cause of decreased kidney function.

Stage 2: Patients have 60 to 89 per cent kidney function

Treatment – Try to stem the progression of the disease

Stage 3: Patients have 30 to 59 per cent kidney function

Treatment – Try to stem the progression of the disease

Stage 4: Patients have 15 to 29 per cent kidney function

Treatment – Explore dialysis and transplant options

Stage 5: Patients have less than 15 per cent kidney function

Treatment – Dialysis or transplant required to sustain life

Not all CKD patients progress through all five stages of the disease. In patients with Stage 4 kidney disease, death is a more common outcome (45.7 per cent) than dialysis (19.9 per cent).¹ In other cases, patients remain stable at Stage 4 or benefit from a successful kidney transplant.

There is no cure for CKD, but it is possible to prevent or delay disease progression² through early detection, access to therapeutic intervention and lifestyle changes.

About The Kidney Foundation of Canada

The Kidney Foundation of Canada is the national volunteer organization committed to reducing the burden of kidney disease through funding and stimulating innovative research, providing education and support, promoting access to high quality healthcare, and increasing public awareness and commitment to advancing kidney health and organ donation. In the past 45 years, since its creation, the Foundation has invested over \$83 million in kidney-related research.

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For more information about this press release, or to arrange an interview with a nephrologist (physician specialized in kidney health) or a spokesperson of The Kidney Foundation of Canada, please contact:

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¹ Keith et al. *Arch Intern Med.* 2004;164:659

² "Kidney Disease – Am I at Risk?", The Kidney Foundation of Canada;
http://www.kidney.ca/files/Kidney/a28640_Risk_Eng.pdf (accessed on January 26, 2009)



MEDIA BACKGROUNDER – CHRONIC KIDNEY DISEASE

What is Chronic Kidney Disease?¹

Chronic kidney disease (CKD) is the presence of kidney damage, or reduced function of the kidneys, for a period of three months or more. As many as 2 million Canadians either have CKD or are at risk of developing it, and most are unaware.

Risk Factors²

People at risk for CKD are those with diabetes and high blood pressure, or those who have a family history of kidney disease. Members of certain ethnic groups are at greater risk because of higher instances of these health conditions. This includes people of Aboriginal, Asian and South Asian, Pacific Island, African / Caribbean and Hispanic descents.

As Chronic Kidney Disease progresses, there is a tendency to see the development of blood vessel disease which may include a build up of calcium in the walls of these vessels. Moreover, studies indicate that there is a large burden of cardiovascular disease in those with CKD. The outcomes of the cardiovascular disease tend to be worse the lower the level of kidney function.

Indicators of CKD³

Kidney disease usually progresses silently without any outward symptoms, often destroying most of the kidney function before signs of the disease are even visible. For this reason, people at risk of developing CKD should be evaluated regularly.

Though symptoms of CKD often go undetected until later stages of the disease, some indicators may include:

- High blood pressure
- Puffiness of the eyes, hands and feet
- Differences in urination (passage of bloody, cloudy or tea coloured urine; protein in urine; excessive foaming of urine; frequent passing of urine at night; passing less or difficulties passing urine)
- Fatigue or difficulty concentrating
- Loss of appetite or weight
- Persistent generalized itching

Five Stages of CKD⁴

CKD can be divided into five stages depending on the severity of kidney damage or the decreased level of kidney function. However, not all CKD patients progress through all stages.

Stage 1 – Patients in this early stage of the disease retain more than 90 per cent of kidney function. No outward symptoms of the disease are visible. The course of action is to identify the cause and try to reverse it.

Stage II – Patients in this stage of CKD have increasingly damaged kidneys that operate at 60 to 89 per cent of normal kidney function. Again, no outward symptoms of the disease are visible. The goal at this stage is to monitor blood pressure, creatinine level, and overall health and well-being in an effort to stop or slow disease progression.

Stage III – At this stage of CKD, kidney damage is more severe and kidneys are functioning between 30 and 59 per cent. Outward symptoms of tiredness, poor appetite and itchiness become visible. Measures are taken to try to stop or slow the worsening kidney function while patients become more educated about CKD and possible treatment options.

Stage IV – Kidney damage at this stage is severe and function has been reduced to 15 to 29 per cent. Outward symptoms of tiredness, poor appetite and itchiness may become worse. An access site is chosen for dialysis and the patient is assessed for a possible transplant.

Stage V – This stage, called End-stage Renal Disease, is marked by severely impaired kidney function where the organ functions at less than 15 per cent and is unable to keep a patient alive. Symptoms at this stage include the inability to sleep, difficulty breathing, itchiness and frequent vomiting. Renal replacement therapy, involving dialysis or transplantation, occurs.

Managing CKD⁵

Patients with CKD can prevent or minimize the progression of the disease in early stages by taking a wellness approach to their health. Some factors that help to achieve physical, social and mental wellness in patients with kidney disease include:

- Well-balanced diet with special attention to sodium, potassium, phosphorous, protein and fluid consumption
- Regular physical activity (45 to 60 minutes, four to five times a week)
- Good blood pressure control (for those with high blood pressure) and good control of blood glucose (for those with diabetes)
- Weight control
- Stopping smoking
- Limiting alcohol consumption to one or two drinks daily

REFERENCES

¹ "Kidney Disease – Am I at Risk?", The Kidney Foundation of Canada; http://www.kidney.ca/files/Kidney/a28640_Risk_Eng.pdf (accessed on January 30, 2009)

² Ibid.

³ "Your Kidneys", The Kidney Foundation of Canada; <http://www.kidney.ca/page.asp?intNodeID=22139> (accessed on February 2, 2009)

⁴ "Kidney Disease – Am I at Risk?", The Kidney Foundation of Canada; http://www.kidney.ca/files/Kidney/a28640_Risk_Eng.pdf (accessed on January 30, 2009)

⁵ Ibid.