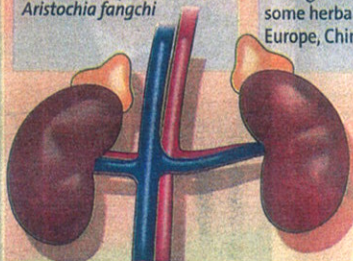


KIDNEY ALERT

Drugs and herbs that are associated with adverse effects on kidneys

Type of drug/substance:	Examples of drugs/substance:	Usage:
Immunosuppressants	Cyclosporine, tacrolimus	To suppress the immune system mainly in organ transplants
Antifungals	Amphotericin B	To treat serious or potentially life threatening fungal infections
Radioccontrast agents	Iodine or barium compounds	Injected into the body to make certain parts of the body visible to scanning devices such as CT-scanners or special X-ray processes like angiography
Non-steroidal anti-inflammatory drugs	Aspirin, ibuprofen, diclofenac	To reduce inflammation, fever, and pain
Antibiotics	Penicillins	To treat infections
Aristolochic acid found in a Chinese plant <i>Aristolochia fangchi</i>	Once found in slimming products in Belgium and still found in some herbal medicines in Europe, China, Taiwan and Japan	As <i>Aristolochia fangchi</i> resemble another plant - <i>Stephania tetrandia</i> (Fangji) - that is used for weight loss and pain relief, its presence in herbal preparations maybe unintentional



References:

1. Marc E. De Broe. *Renal injury due to environmental toxins, drugs and contrast agents. Atlas of Diseases of the Kidney, online edition, Vol 1. www.kidneyatlas.org/book1/adk1_11.pdf. Retrieved March 1, 2011.*
2. Rudnick, RM., Tumlin, JA. *Prevention of contrast-induced nephropathy. UpToDate.com. Retrieved March 1, 2011.*

Star GRAPHICS © 2011

which 29% had moderate to severe impairment.

There are no studies or numbers to demonstrate which is the worse culprit (ie whether kidney disease is more likely to cause heart disease, or vice versa), but Dr Zaki and his colleagues can tell from experience that most kidney patients will invariably have some form of heart disease by the time they develop advanced kidney disease (Stage 4).

"Some of them may already have heart disease when they are diagnosed, and some may not. But when their kidney function gets worse, they may start developing heart problems," he explains.

Live healthily, and keep tabs on your health

Like heart disease, kidney disease can sneak up silently. In this case, the gradual development of kidney disease and the ability of the kidneys to compensate for their loss of function does not work in our favour.

"The kidneys have got their reserves, but the reserve is highest in the younger age group. So, as you



It is also a good practice to have annual medical checkups when one reaches adulthood.

get older, you will use up your reserves. And when you get kidney disease, there are hardly any reserves left," says Dr Zaki.

So, without immediate signs to remind us that our kidneys are in trouble, it is even more important for us to take steps to protect our kidneys before problems start (see *The seven golden rules*).

The next best choice is to detect kidney problems early and before they get worse. "The best way to detect kidney disease is to have your blood pressure and urine checked. And we advise people who have diabetes, high blood pressure or a family history of kidney diseases to do this more regularly than others," says Dr Zaki.

Detecting it early

Some of the ways to detect kidney disease early.

THE signs and symptoms of kidney disease are often non-specific and can be shared by a long list of other diseases. However, a combination of these signs may indicate early kidney disease and remind you to get your kidneys checked before the damage worsens.

1. Look out for symptoms of failing kidney function

● As our kidneys help our body remove excess water, failing kidneys can cause the body to retain more water than it should. This can result in **puffiness around the eyes and swelling in the hands and feet**.

● Our kidneys are also supposed to help regulate our blood pressure. When the kidneys are damaged, we might also develop **high blood pressure**.

● After "filtering" our blood, our kidneys excrete excess water, waste products, and toxins through our urine. Damaged or diseased kidneys may not filter out as much urine as it normally should (**decreased urine volume**), and people with kidney disease may experience problems with urination (**pain, or frequent urination**).

● Our kidneys are located at the back, just below our ribs. Therefore, **pain in the mid-back** can also indicate problems with the kidney.

2. Assess the product: your urine

● It may be difficult to detect early changes in the urine just by looking at it, but changes that are obvious: like when the urine becomes **foamy** (the presence of a lot of protein), **bloody** (the presence of blood), or **coffee-coloured urine** (presence of blood or pigmented proteins) should ring a few warning bells.

3. Let the machines do the rest

● **Trace amounts of protein or blood** often do not change the appearance of urine, although they may indicate reduced kidney function and early kidney disease. However, a **urine analysis** lab test may pick them up.

● When these are found, doctors may advise further testing that will involve **blood tests** to measure abnormalities in the blood that indicate reduced kidney function, like increased levels of **serum creatinine** (creatinine is a waste product in the blood that is excreted by the kidneys).

A calculation of the **glomerular filtration rate** from serum creatinine levels (called the estimated GFR or **eGFR**) will tell doctors whether a person's kidneys are functioning normally. The eGFR is also used to determine the stage, or severity of chronic kidney disease.

Even if you do not fall into any of those groups, it is also good practice to have a general health check and a urine test annually, says Dr Zaki. "In many kidney diseases, the earliest manifestation is the abnormalities found in the urine. People either have (trace amounts of) blood or protein in their urine," he says.

Even though these can be caused by other factors (like infections or kidney stones), these factors can also affect the kidneys. "So, whenever we pick up these results, we can always advise you to go for a more thorough checkup, which may include blood tests," Dr Zaki adds. Abnormalities in the blood (raised serum creatinine and blood urea nitrogen, or lowered glomerular filtration rate) usually surface later.

We might not be able to stop the progression of kidney disease completely once the damage is done, but we can delay it as much as we can with a healthy lifestyle and medications, if necessary.

But many of us know that already. Maybe, this year, we will be more convinced of the fact that our efforts will reap benefits not only for our kidneys, but for our hearts too. It may appeal more to the two-in-one-bigger-bang-for-the-buck consumer habit in us these days.

■ For more information about the activities that will be held for the following two Sundays, please visit the National Kidney Foundation web page on World Kidney Day 2011 at www.nkf.org.my/wkd2011.php