

## Dialysis on the go

For patients with end-stage renal failure on dialysis, it's the Awak jacket they will want.

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Mind Your Body

**By June Cheong**

A jacket keeps one warm but for patients with end-stage renal failure on dialysis, it's the Awak jacket they will want.

Awak - automated, wearable artificial kidney - is a new portable dialysis technology which imitates the function of natural kidneys.

Based on the principle of peritoneal dialysis, the device works continuously and is 'bloodless', which means that blood does not have to be pumped out of the body to be cleansed.

Like peritoneal dialysis, a chemical bath of dialysate is used to draw fluids and toxins out of the bloodstream. It is pumped into the peritoneal cavity inside the abdomen of a patient wearing the Awak jacket.

However, while peritoneal dialysis uses 8 litres of dialysate a day, Awak uses only 1 litre of the fluid for up to six months, which is continuously recycled.

Two researchers from the University of California, Los Angeles, and the Veteran Affairs Greater Los Angeles Healthcare System worked on Awak for more than 20 years.

When Dr Gordon Ku, a consultant nephrologist at Ku Kidney Medical Centre and chairman of Kidney Dialysis Foundation, got wind of the project, he set up Awak Technologies to work with them to develop a commercially viable wearable kidney.

The system is currently undergoing laboratory trials and will be tested on eight patients at the Singapore General Hospital and another eight in Los Angeles by year-end.

The wearable kidney dialysis machine is expected to be sold commercially by 2011.

Dr Ku hopes to make the new dialysis system even more affordable than current technologies.

He said: 'As a doctor, I can treat only one patient at a time. Awak can help a few hundred thousand patients at any one time.'

'To me, that's a God-given chance to help people.'

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