

# Diabetics ride for a better life

Verity Edwards

DIABETES sufferers over the age of 60 could soon find an ally in the bicycle, with a University of South Australia study expected to show the benefits of cycling in alleviating side effects of the disease.

Esther May, head of the university's school of health sciences, has just completed a pilot study on the benefits of riding a stationary bike in alleviating diabetes. She and colleagues Annette Raynor and Sara Jones are about to start a full-scale study.

"It has come out of recognition that physical activity is beneficial [for] many forms of chronic conditions, including diabetes," Professor May told the *HES*. "The cycling fitted with the work that we'd been doing with diabetics."

While exercise has been recognised as a way of helping regulate sugar levels in the bloodstream of diabetics sufferers, weight-bearing activities such as walking have often led to further problems.

"We know that podiatrists' waiting rooms are full of people with sores and pressure points and problems with their feet," she said. "It's trying to better match the exercise regime with the problems that they have."

The study focuses on low-impact and non-weight-bearing exercise and how it affects diabetics.

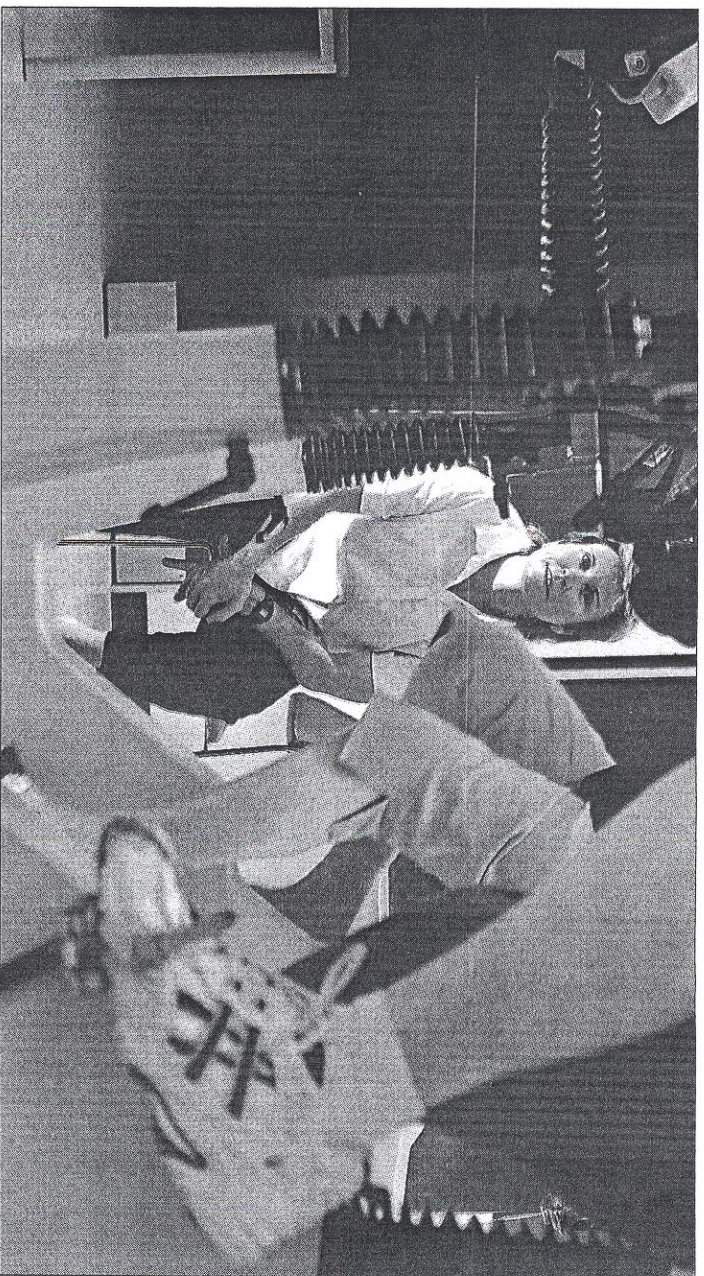
## Cycling the new golf as eco-friendly bikes outsell cars

Brendan O'Keefe

TRAVEL time by car in a city peak hour, compared with travel time by bicycle, was about one minute less per kilometre, but the time saving had a lasting cost, a University of South Australia academic has calculated.

For every hour saved by travelling even in a small car, the motorist contributes 12kg of carbon dioxide — a gas linked to global warming — to the atmosphere, according to Stuart Clement, the organiser of the second Thinking on Two Wheels conference at the University of South Australia, held on Monday.

"If you do six trips of 10km in peak



Chronic ailments in her sights: Annette Raynor puts some stationary cyclists through their paces

"We're looking at circulation in terms of cycling and how does it feel for them, particularly when a lot of them haven't done it before, but in a controlled environment," she said.

To monitor pressure placed on the feet during cycling, participants wear force plate sensors in their shoes. Ultrasounds also measure blood flow in the foot before, during and after

period using your car, you will save an hour of travel time. The cost of that hour saved in your Holden Astra will be about 12kg of CO<sub>2</sub> emissions," Dr Clement said.

The conference came after news that bike sales had outstripped car sales last year for the sixth consecutive year. Australians bought 11 million bicycles against 988,269 motor vehicles in 2005.

The Bicycle Institute of South Australia's Mike Brisco told the conference that Adelaide cyclists, according to the most recent study, rode for 5.3 million hours, covering 40 million kilometres, in 1999.

Dr Brisco added statistics from

exercise. Glucose levels are monitored as well.

The pilot program used women, with each bringing a friend to keep them company. "If you can get a buddy type system, over time [the exercise regime] might be more sustainable," Professor May said.

Pilot study participant Neta Fioravanti, 62, developed type 2 diabetes

police reports to the Metropolitan Adelaide Household Travel Survey of 1999 to measure the risks of cycling in city traffic.

He found that for every 100 million kilometres cycled, there were 7.6 deaths, 1172 injuries and 1386 crashes. Per 100 million hours, there were 56 deaths, 8682 injuries and 10,273 crashes.

European Union nations in 2004 reported 5.4 deaths per 100 million kilometres.

In 1999, South Australian cyclists made 1.2 per cent of journeys in the state but accounted for 4 per cent of road deaths, 3.6 per cent of serious injuries, 4.9 per cent of other injuries

nine years ago. "It was in both my parents' families," Ms Fioravanti told the *HES*. "I was expecting [to get] it but not as soon as I did."

Ms Fioravanti had not been physically active recently before she took part in the study. Twice weekly she brought in a friend and they cycled for 20 minutes on stationary bikes.

"I've noticed a difference since we

and 4.7 per cent of overall road crash casualties. Dr Brisco said motorists were to blame in 64 per cent of crashes involving cyclists.

Monash University academic Justen O'Connor told the conference that 9.4 per cent of the Australian population rode each year.

Many riders sat in the "weekend warrior" class: those who ride in semi-formal bunches with an appointed departure point and time, an element of competitiveness and a coffee at the finish line. Their average age was 43 years, with ages ranging from 16 to 73. Participants in a focus group said their cycling experience ranged from one year to 57 years.

stopped before Christmas," she said. "I was feeling a lot fitter and my sugar levels seemed to be a lot more controlled [when we were cycling]."

"If you know your sugar is controlled you know you're doing the right thing. In the long term it's going to, hopefully, help diabetes and it's all to do with the circulation of your lower limbs."

Picture: Brett Hartwig

"Many participants felt that the organised sport of cycling could offer little more than the social, semi-competitive, adrenalin-charged atmosphere of the weekend bunch ride," Dr O'Connor said.

"It is believed that the informal nature of this type of cycling affords participants freedom associated with cost, competition without consequence, minimal commitment and a sense of control.

"Cycling has become the new golf and for the many middle-aged males [who] participate, it offers an attractive, no-strings-attached environment to express their physicality."