



Heart Research

NEWSLETTER 4 2007

Rehabilitation speeds return to golf

Peter Wood lives in a leafy outer suburb of Melbourne. He operates a thriving business as an accountant and financial planner. He is also Chairman of the Board of the Barnboughle Dunes Golf Links. Looking much younger than his 50 or so years, he is slim, fit and full of vigour. While walking up a hill on a sunburnt golf course in Spain, playing a round of golf, Peter had a strange sensation of being 'definitely out of it'. He didn't experience a tingling sensation, but knew immediately that something was wrong. However, the feeling passed and he was able to continue playing. He even had three birdies on the back nine, so he knew that he wasn't too bad! But he did tell his wife he felt it was something significant. Fortunately they were able to enjoy the rest of their trip without further such events.

Having a family history of heart disease, Peter visited the family GP on his return to Australia. It was recommended that he undertake a cardiac stress test. Peter felt unwell while undertaking the stress test,



Peter Wood

which surprised him as he believed that he was pretty fit, with a golf handicap of six. He was advised to stay in hospital overnight following the test and have an angiogram the next day. With a surprise party organised for his brother's 50th that night, an overnight stay in hospital was not part of the plan at all. The angiogram the next morning showed that his arteries were 90% blocked. That afternoon, coronary artery bypass graft surgery was performed. He was discharged after 10 days and returned to work for brief periods soon after. This was easy as he was self employed. "I didn't get back to golf until four months after my operation. Six months after my cardiac event, I had a week's holiday and then I found I was able to work full time and not get exhausted."

When in hospital, Peter was advised to attend a cardiac rehabilitation program. He found the program most useful. When asked if he would recommend rehabilitation to others after heart surgery, Peter replied emphatically "absolutely!" Even though Peter had a good diet and plenty

of exercise before his surgery, he found the education sessions most informative and helpful. He and his wife have modified their diet, eating less cheese and saturated fats and more fish. They now read the labels on foods carefully. "I now monitor everything I eat. At first my wife found it difficult to understand, saying one piece of cake won't hurt, but if I have one piece, then why not have another. For me, if I don't have it, I don't think about it."

"The exercise side of rehab was effortless for me, as I had done pilates and played lots of golf. The session I found the most useful, which I wouldn't have attended if I had realised what it was about, was the one with the social worker, where we all sat round the table and shared experiences. Everyone was very open. For me, it was a breakthrough being able to express the feelings of depression I had been experiencing."

The valuable research conducted by the Heart Research Centre into rehabilitation and the prevention of heart disease is shared with health professionals at the training programs the Centre runs so that they are better equipped to support heart patients and those at risk. Rehabilitation saves lives - it is as simple as that. Peter's golf, like his heart, is obviously in good form, as he won the BMW Golf Day in June this year. This event was held in support of the Heart Research Centre. We wish Peter ongoing success with his golf!

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What are coronary artery stents and how are they used?

You probably know people who have had a stent inserted into a coronary artery. Between twenty and thirty thousand of these relatively simple procedures are performed each year in Australia. They make a big difference to the quality of life and life expectancy of the recipients.

In previous newsletters we have addressed various aspects of coronary heart disease. The muscle cells of the heart need a blood supply, just like the cells in the rest of the body. This blood supply is delivered through the coronary arteries. The major coronary arteries run down on the surface of the heart and give off ever smaller branches into the heart muscle. Thus the muscle cells are supplied with oxygen and other substances. The used and waste materials from the muscle cells (carbon dioxide and other substances) are removed by the coronary veins.

Problems arise if the coronary arteries become narrowed or blocked. Deposits of cholesterol within the wall of an artery reduce its diameter, resulting in a 'narrowing' of the artery - coronary artery disease. If blood clots form on one or more of the cholesterol containing plaques, the artery may block completely, resulting in coronary artery occlusion or heart attack.

The development of plaques is prevented, or slowed, by lowering the levels of cholesterol, blood pressure, weight and blood sugar, by not smoking and remaining physically active.

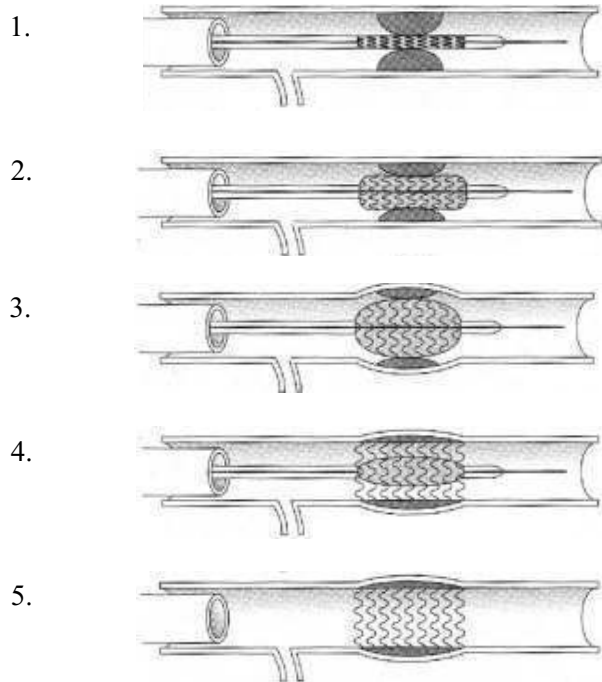
In many people the narrowing in the coronary arteries may lead to an inadequate blood supply to part of the heart muscle. This reduced supply of blood may then lead to chest pain (angina pectoris) on exertion or under other stresses. This problem has been addressed by coronary artery bypass graft surgery over the past 40 years (discussed in the previous newsletter). More recently, it has been addressed by coronary artery angioplasty, where the narrowing in the coronary artery is opened by inflating a long, narrow balloon inside the affected segment. The problem with this approach in the past was that sometimes the opened artery could narrow again. If that happened, it might have been necessary to repeat the procedure or to perform urgent bypass surgery. Here is where the stent comes in. A stent is an open, metal mesh (like chicken wire) which is expandable (by balloon) to open up and thereby hold open the previously narrowed segment. Development of stents was such an advance that it is now unusual to have angioplasty alone. In the vast majority of procedures of this type, the angioplasty is now coupled with a supportive stent.

Similarly it was found that in the event of a blood clot blocking a coronary artery, leading to a heart attack, the clot

and the underlying plaque could be effectively opened and stabilised by angioplasty and the insertion of a stent.

Thus, in most major hospitals, this urgent procedure is generally offered to patients who are having an acute heart attack. The procedure has been clearly demonstrated to be highly effective. It still remains possible that the diameter of the stent may later start to narrow or block with plaque and blood clots. Chest pain may return. To prevent that from happening, additional medication is prescribed for the patient. The second approach is to coat the stent itself with chemicals which prevent the tendency for clots to form on the stent. Thus many stents inserted are now not bare metal stents but are chemically coated. The steps whereby a stent is inserted are shown in the diagram.

For those with established coronary artery disease, this is of critical importance. For all of us, maintaining healthy lifestyles and taking preventive medication remain of greater importance to avoid progressive disease.



1. The stent (like a metal cage) on a balloon catheter is positioned at the problem site.
2. The balloon catheter is then inflated.
3. The stent is fully expanded and
4. left in place after the balloon has been deflated.
5. The stent remains expanded inside the artery.

Dr Alan Goble
Cardiology Consultant

The views expressed are those of the author and not necessarily those of the Heart Research Centre.

Alan Goble Lecture



Dr Alan Goble, Ms Jane Gordon, President of VACR and Prof Andrew Tonkin

The Alan Goble Lecture held on 4 October at the Box Hill Golf Club was well attended by members of the Victorian Association of Cardiac Rehabilitation, providing a valuable opportunity for further education and discussion with colleagues. The guest speaker, Professor Andrew Tonkin, is a well-known figure. A cardiologist, Prof Tonkin was until recently Director of Health, Medical and Scientific Affairs at the National Heart Foundation. He is now the Head of the Cardiovascular Research Unit, Department of Epidemiology and Preventive Medicine, Monash University. His particular interests include coronary artery disease, preventive cardiology, epidemiology and clinical trials.

Numerous cardiologists recall Dr Goble's outstanding ability as a clinical teacher. Prof Tonkin is no exception. He spoke of his time as a cardiology registrar at The Royal Melbourne Hospital and the valuable guidance he received from Dr Goble, who was his mentor. In particular, he recalls asking Dr Goble for advice about his next career

move, whereupon Dr Goble told him to leave RMH! However, this was not the rejection it first appeared, but rather sage advice to expand his experience beyond one hospital.

In his lecture Prof Tonkin spoke about the limited allocation in the health budget for preventive health care, despite the cost effectiveness of programs such as cardiac rehabilitation, and the debate about the role of heredity versus lifestyle as the primary cause of heart disease. Prof Tonkin believes that, in most cases, heart disease can be explained by behavioural and environmental factors rather than genetic influences alone. He noted that the ideal levels for systolic blood pressure and total cholesterol are 115mm of mercury and 3.7mmol respectively. Unfortunately only one third of Australia's population achieve these levels! Prof Tonkin also stressed the importance of rapid admission to hospital if someone has a heart attack. Regrettably, research shows that those who have had a heart attack in the past do not get to hospital any quicker than those patients without known heart disease!

Research excellence award

When we asked Professor Edward Janus, Director of General Medicine at Western Hospital and a Director of the Heart Research Centre if we could interview him for our newsletter, we didn't realise how opportune our timing was.

Last week he was given a Research Excellence Award by the Hong Kong Government for his public health research between 1994 and 2006. These awards are given to people whose work has had the greatest impact on the health of the citizens of Hong Kong.

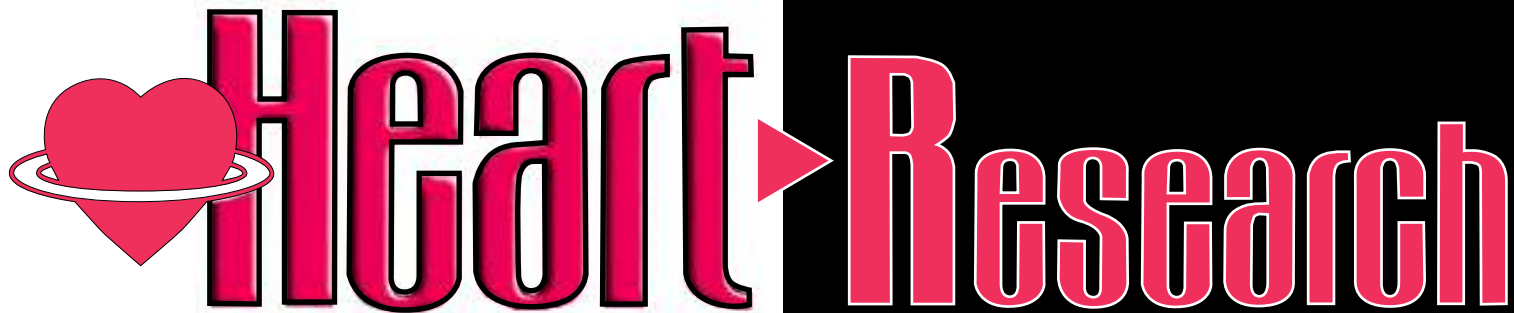
A specialist physician, Professor Janus has had a long career in medicine. He initially trained in medicine in New Zealand before going on to England to undertake post graduate studies. On completion of his studies, he returned to Christchurch working as a consultant for a number of years before shifting to Victoria. He continued his work as a consultant in Melbourne, regional Victoria and Hong Kong.

Professor Janus decided very early in life to follow a career in medicine and science but it wasn't until his last year as a medical student that he was challenged to study cholesterol and heart disease. "Forty years ago most people didn't think cholesterol would ever be of any relevance but I have been interested in heart disease, diabetes, cholesterol, smoking, high blood pressure and all these factors that cause heart disease ever since."

"Psychological and social factors play a major role in both the prevention of heart disease and recovery from heart attack and heart surgery. Researchers working at the Heart Research Centre have known this for a long time. You need to be aware of how people think and behave and know how to change their thinking and health behaviours. If you just give people the facts, nothing necessarily happens."



Prof Edward Janus with Prof Peter Tong from the Chinese University of Hong Kong



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RAFFLE NEWS 4 2007

Raffle #28 winner of BMW



Ian and Jeannie Haughton

Ian and Jeannie Haughton from country Victoria are the most recent lucky winners, with ticket no 127132. They won the attractive sparkling graphite BMW 120i automatic, complete with alloys, sunroof and on road costs, raffled in support of the Heart Research Centre.

When Prue Georgeson, the Administration Manager, rang the winners on the day of the draw, she was greeted with the typical response of disbelief from Ian. "You're kidding. I need to be convinced!" Prue explained that the name of the winner and the number of the winning ticket would appear in the Public Notices column of the Herald Sun on the following day. Ian

explained that he did not want to have "... egg on my face," if he mentioned his win to others and it turned out not to be true. Ian said that he had often asked Jeannie not to buy so many raffle tickets which he then had to pay for. He commented that, as Jeannie had bought the ticket, she would probably want to be the principal driver.

Ian works at Holden in the Spare Parts Department. When he went to work the day after the draw, he bought the Herald Sun and read the notice. He wasn't going to say anything about his win at work but his resolve lasted about 20 seconds!

We congratulate the Haughtons on their win and suspect that Ian will no longer discourage Jeannie from buying raffle tickets.

5,000 reasons for buying your raffle tickets early

The lucky winner of the latest Early Bird \$5,000 Myer Spending Spree is Mr John Frendo.

Mr Frendo was not sure what he would do with the money, but said that he knew someone who would really appreciate spending it!

If supporters buy a book of tickets before the closing date for the Early Bird Prize, they will be included in the draw, even if they have given the tickets away or on sold them. So if you buy a whole book of tickets early enough in each raffle, you could win both prizes on offer while feeling good about supporting heart research at the same time!

We thank all of those supporters who bought tickets in the raffle, as well as those who made a tax deductible donation to the centre, in addition to purchasing tickets, or in lieu of tickets.

The raffle draw was overseen by officers from the Department of Justice and audited by WHK Day Neilson.

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