

# In a Heartbeat.

August 2007  
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## From the Director's Desk

Welcome to the latest edition of In a Heartbeat. In this issue you'll read about some of the important research breakthroughs you've helped to make happen over the last 12 months. And Guy Leech will help you to stay fit with some easy to follow tips.

You'll also meet another member of the team, Dr Clare Hawkins Leader of The Heart Research Institute's Inflammation Unit and there's another delicious recipe from the Reader's Digest (Australia) publication, Cook Smart for a Healthy Heart.

I hope you enjoy your newsletter. We look forward to bringing you more news in future editions of In a Heartbeat.



**Professor Philip Barter** MBBS PhD FRACP  
Director

## Research Highlights

The last 12 months has seen a raft of important new discoveries from our various research groups. Here's just a few breakthroughs your support has helped make possible:

- The Nutrition and Metabolism Research Group has discovered that waste material left over from olive oil production contains compounds with potent anti-inflammatory and antioxidant properties that could benefit patients with heart disease.
- The Clinical Research and Lipid Research Groups have discovered that eating a single meal rich in saturated fat can reduce the ability of the protective HDL cholesterol fraction to block inflammation.
- The Gene Regulation Group made several discoveries as to why men develop heart disease at a younger age than women.
- The Angiogenesis Research Group has developed a novel and well-characterised model to study the phenomenon of angiogenesis 'in the test tube' and is now using this model to understand how new vessel growth is regulated. (Angiogenesis is the process which facilitates the growth of new blood vessels to sites affected by vascular disease).
- The Free Radical Group showed that modification of low-density lipoproteins (LDL or "bad" cholesterol) by sugars, results in the uncontrolled uptake of LDL by cells present in the artery wall. This process then leads to the formation of fat-filled cells that are a hallmark of atherosclerosis.
- The Lipid Research Group showed that the protective HDL fraction from people with diabetes has a reduced ability to protect against cardiovascular disease. The Group also found that the protective HDL fraction promotes the repair of the lining of damaged blood vessels.

## My Top 10 Tips

for looking good, feeling great and living longer

## Guy Leech's Fitness Forum

With Spring approaching, it is time to come out of hibernation and think about getting fit. I am committed to making Australians healthier for the long term, so here are 10 tips to make the task easier:

- 1 Set achievable goals:** Set both long and short-term goals to help achieve your objectives.
- 2 Ensure there's balance in your life:** There are 168 hours in a week... surely you can devote a minimum of two of those hours to getting yourself healthy.
- 3 Keep stress in check:** Stress places pressure on the heart, your ability to sleep and just about every aspect of your life. Again, exercise and a good diet will help you. It balances out your moods, releases 'feelgood' pheromones and gives you better sleep.
- 4 Make fitness fun:** Mix your exercise up with at least three different sessions per week plus another where you raise your heart rate.
- 5 Keep moving:** Besides set exercise sessions, try to keep moving all day by walking to the local shops, running up stairs, doing sit-ups at home, moving around the office rather than e-mailing your workmates and walking your children to or from school whenever you can.
- 6 Eat fruit and vegies:** Eat five serves a day, combining the two if you can. Fruit and vegies with the richer colours typically have greater nutritional value - e.g. 'super foods' like blueberries, blackberries and strawberries.
- 7 Drink water:** As close to eight glasses per day as possible. A good way of minimising the amount you eat is to drink a couple of glasses before meals. It helps fill your stomach up so that you eat less... (not to mention concurrently cleaning out your system!).
- 8 Reduce alcohol consumption:** Alcohol puts on weight, reduces discipline and you don't need it to have a great time. If you really like your beer, try the low calorie/low carbohydrate brands.
- 9 Sleep is important:** Sleep helps your productivity, memory and metabolism.
- 10 Stop smoking:** If you have been living in a media void for the past 30 years and don't realise the damage this does to your heart and lungs, wake up now! Stop smoking immediately if you value your heart and health.



For more information go to [www.guyleech.com](http://www.guyleech.com)

Guy Leech

## MEET *the* Team...

an interview with **Doctor Clare Hawkins** from the Free Radical Group

Dr Clare Hawkins completed her PhD studies at the University of York, England, before travelling to Australia to join the Free Radical Group at The Heart Research Institute. She has recently been appointed Unit Leader of our latest group, the Inflammation Unit. Dr Hawkins became involved in studying the chemical reactions that lead to protein damage in the arteries of patients with atherosclerosis and developed a particular interest in peroxidases - the enzymes released by white blood cells under inflammatory conditions.



Peroxidases play an important role in the human immune system by producing reactive free radicals and oxidants to kill bacteria and invading pathogens. However, these reactive species have also been shown to cause damage to the arteries that leads to atherosclerosis.

The main focus of the Inflammation Unit is to understand how the damaging oxidants produced by peroxidases alter cells in the wall of human arteries and how this contributes to the development of heart disease. At present, the exact nature of the agents responsible for this damage is not known, which makes the design of therapeutic agents difficult.

The new Unit led by Dr Hawkins is currently examining the ability of different peroxidase-derived oxidants to damage human artery cells. The team is developing unique biomarkers for the assessment of damage induced by these reactive species in patients with atherosclerosis. These exciting studies are providing valuable data that will help to develop new drug treatments for patients with cardiovascular disease.

## Farewell Miss Merle Puddicombe



A long-term supporter, and great friend of The Heart Research Institute, Miss Merle Puddicombe, passed away in early June, aged 97. As a testimony to her generous spirit, Merle has left half her estate to The Heart Research Institute to help continue the work she so strongly believed in. We extend our sympathy to Merle's family and friends.

If you would like to continue your support well into the future via a bequest, please phone 9241 4300 or e-mail [bequest@hri.org.au](mailto:bequest@hri.org.au) for your FREE bequest booklet.

## RECIPE

# Leg of Lamb

with **double** mint sauce



### Ingredients

- 1 boneless leg of lamb, about 1kg, trimmed of visible fat
- 2 garlic cloves, chopped
- 1 tablespoon chopped fresh rosemary
- ½ teaspoon pepper
- 1 large lemon, halved
- ⅔ cup dry white wine or reduced-salt chicken stock

### Mint Sauce

- ⅔ cup mint jelly
- 2 tablespoons freshly squeezed lemon juice
- ¼ cup chopped fresh mint

*Per serve: 1210 kilojoules*

*34 g protein*

*13 g total fat (7 g saturated fat)*

*118 mg cholesterol*

*8 g total carbohydrate (8 g sugars)*

*0.4 g fibre*

*95 mg sodium*

*Preparation time approx. 15 minutes. 55 minutes cooking time.*

*Serves 6.*

### Directions

1. Preheat oven to 200°C. Lightly coat a roasting pan with non-stick cooking spray. To make the mint sauce, combine the mint jelly, lemon juice and fresh mint in a small saucepan. Stir constantly over medium heat until the jelly melts, (about 5 minutes). Remove from the heat and set aside.
2. Meanwhile, cut the lamb horizontally three-quarters through with a sharp knife. Open and spread flat like a book. Place the meat between two pieces of plastic wrap and pound with a meat mallet or rolling pin to about 2cm thick.
3. Brush about 2 tablespoons mint sauce on the lamb, and then sprinkle with the garlic, rosemary and pepper. Squeeze the juice from one lemon half over the lamb. Roll up the lamb from one wide side. Tie with kitchen string, in both directions. Transfer to a pan, seam side down. Squeeze the remaining lemon half over the lamb and pour on the wine or stock.
4. Roast for about 50 minutes, or until done to your taste. Let the meat stand for 10 minutes before slicing. Reheat the remaining sauce. Remove the strings from the lamb and cut the lamb into 1cm slices. Serve with the mint sauce.

**Healthy Hint:** The lamb in this dish serves up excellent amounts of vitamin B12, which is needed to make red blood cells and build nerve fibres. It's also an excellent source of the B vitamin niacin, which is needed for the release of energy from food.

If you are interested in attending one of our FREE Director's Talk & Tours of The Heart Research Institute (including a light lunch) please call (02) 9241 4300 or e-mail [events@hri.org.au](mailto:events@hri.org.au)



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