



PROFESSOR TRIM'S WAISTLINE

THE PROFESSOR'S FEATURES

NO. 23; AUTUMN 2008

It's the Lifestyle Stupid!

The Biggest Loser, dieting and exercise programs are on a hiding to nothing – without a major lifestyle shift.

While health 'experts' and dinner party guests (often one and the same) continue to argue the merits of the Atkins over the Zone diet, or weight lifting over walking, the world moves on, with new findings suggesting the ineffectiveness of single behaviour change programs in the absence of a 'lifestyle makeover'.

Leading the charge in this area is research already reported on in your formidable PTW library, that indicates that body weight or even fat, *per se*, may not be the issue in disease, and may in fact just be a 'marker' of other problems occurring in the overall lifestyle. Studies on inflammatory processes in the body, normally thought to be associated with infections, have shown that a low grade form of inflammation (called 'metaflammation') throughout all cells of the body, seems to result from certain lifestyle behaviours, some of which (but not all) can make us fat at the same time.

Obesity – or lifestyle?

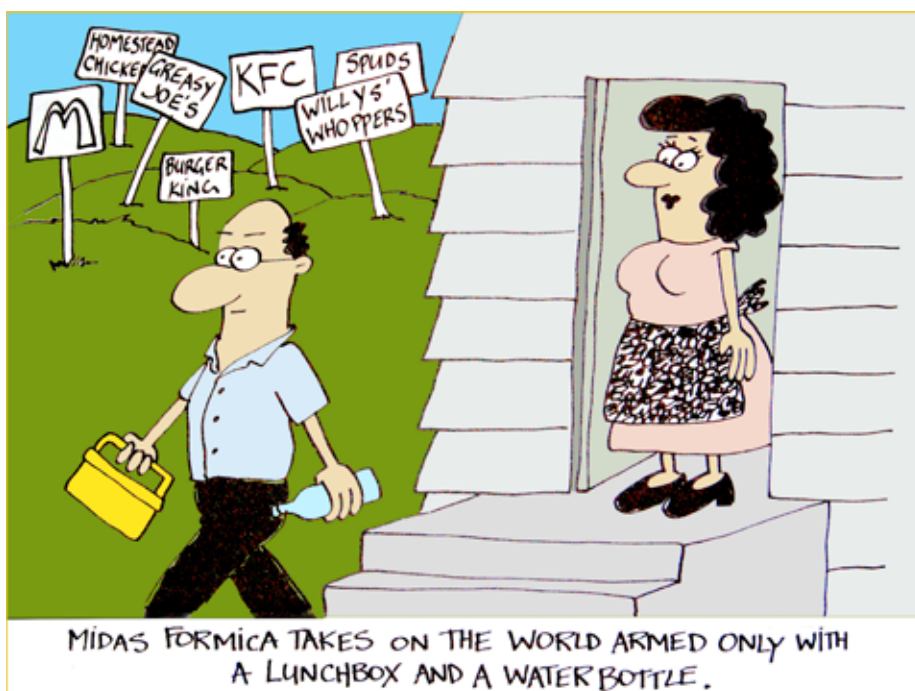
Eating too much and not being active enough are the two main lifestyle behaviours that cause obesity. And while obesity has been known for over a decade to be associated with inflammation, certain types of nutrition and inactivity are now known to cause 'metaflammation', with or without the weight gain.

Foods that cause a rise in pro-inflammatory markers (chemical 'call-out' signals to the immune system to fire up its defences) immediately after they have been eaten, have now been identified (see story this issue), as have foods that have the opposite (anti-inflammatory and hence supposedly good) effect. Both types of food are shown in the box on the next page.

A casual glance at these suggest an immediate hypothesis: pro-inflammatory foods and nutritional behaviours are typically those with which humans have

not evolved, and those listed under the anti-inflammatory side are those that humans have consumed for thousands of years – little wonder the body reacts as if it is at war against these 'foreign invaders'. Starvation is the exception, but an inflammatory reaction to this has survival value in increasing insulin

entertainment driven environment. Over one third of individuals in modern industrialised countries are now getting less than seven hours sleep a night and this has been shown to raise inflammatory markers. The reason probably relates to that by which psychological stress also causes a pro-inflammatory response, and



resistance and enabling the body to conserve what valuable energy stores (glucose and fat) it may have left. On the positive side, calorie restriction – although obviously not to the point of starvation – can have an anti-inflammatory effect.

Inflammation and obesity

The fact that most of the pro-inflammatory stimulants can also increase body fat may be less relevant than is often thought. And this is reinforced by the fact that other modern behaviours can have a similar effect.

Inadequate sleep is a common phenomenon in an electric light and

that is through a chronic rise in stress related-hormones (rather than acute rises more characteristic of hunter-gather environments). Depression is also on the rise and is also associated with an inflammatory reaction. Finally, smoking, while actually being responsible for

also in this issue

- Are you exercising enough?
- Foods to combat lifestyle diseases
- Eleven ways to weight loss?

(click titles for article links)

DIETARY FACTORS AND FOODS KNOWN TO HAVE PRO AND ANTI-INFLAMMATORY REACTIONS IN THE BLOOD

Pro-inflammatory

Too much overall energy
Saturated fat
High GI foods
Salt
Fructose Sweetened drinks
Excessive alcohol
Starvation

Anti inflammatory

Fruit and vegetables
Mono-unsaturated fats
Nuts
Tea
Dark chocolate
Moderate alcohol intake
Calorie restriction
High N3/N6 ratio

keeping weight down, can cause an outpouring of pro-inflammatory markers.

Dealing with the problem

In all of these cases, obesity or weight gain may or may not exist. So by adopting a behaviour such as a short-term diet or exercise program, could we realistically expect to see a decrease in inflammatory related diseases (such as heart disease and diabetes)?

It seems clear that any changes aimed at reducing weight, without changing all aspects of lifestyle relating to the modern inflammatory environment are doomed to failure in the long term – hence the renowned failure of all forms of dieting, biggest loser programs and TV promoted machines for weight loss. What's needed for those lucky enough to be 'warned' by an expanding waistline, and those who stay lean but should be aware of increasing disease risk factors, is a complete lifestyle 'makeover' package. Bits of the package won't do. It's the whole kit and kaboodle – good sleep, low stress, non-smoking, good diet and plenty of exercise – that has been promoted since the days of Hippocrates, that must make up the prevention armoury.

For reference

Egger G. Dousing our inflammatory environment(s). *Obesity Reviews*, Published ahead of print, Feb. 2008

The Professor's Point

While he has maintained the view for years that newly published weight loss 'diets' only have value as conversation starters at dinner parties or for wrapping up the scraps, new findings on inflammatory responses to various aspects of the modern environment mean that the Professor now has real live bullets to fire. And while this may not mean an immediate reduction in women's magazine 'diet's of the week', it is to be hoped it will start the tongues wagging, which after-all, is a form of potentially valuable, weight losing exercise.

How healthy (or unhealthy) is that food – for you?

A simple blood test after eating may soon be able to tell you.

Nutrition has always been a difficult science. What one study shows is good for us one week, is likely to show up as cancer-causing the next. What one food guru tells us will help us live to 100, another says might kill us overnight.

So how do you know who to believe? New findings around inflammation as a cause of much modern disease (*Professor Trim's Waistline*, Spring 2007) could help provide some answers. Inflammation, similar to that which occurs to an infection, has now been found to occur at a lower level, and more chronically, as a reaction to different types of foods as well as other forms of lifestyle (lack of sleep, stress, smoking etc.).

In simple terms, the process seems to work like this:

- Potentially unhealthy substances introduced into the body cause an increase in oxidative stress in cells;
- Oxidative stress causes 'free radical'

to split from oxygen and look to pair with other electrons;

- This causes an immune reaction, the first stage of which is the development of a low level inflammatory response throughout the body;
- If this persists, the inflammatory reaction interferes with other natural processes and causes disease.

One of the first actions in the inflammatory response is the increase in chemical messengers (called cytokines) to 'warn' the body of what has to happen. These pro-inflammatory markers helps to 'build a wall' around the offending substance to contain it and prepare it from attack by other killer cells in the immune system. To date about 50 pro-inflammatory markers have been identified, but just three or four can be used to tell if a reaction is potentially dangerous.

With foods, this can be picked up in an immediate reaction in the blood.

One marker in particular, called TNF α (Tumor Necrosis Factor alpha), is an early indication that a food, or action, might not be all that it's cracked up to be. TNF α has been found to be elevated after a number of different nutrients like saturated fats, sugars, salt and too much alcohol. Other chemicals that are known to be anti-inflammatory and therefore the 'goodies' in this process include fruit and vegetables, nuts, high fibre foods, the Mediterranean diet, red wine and dark chocolate.

Potentially, markers like these will be able to be measured from blood samples immediately after a meal in the future to test the body's reaction to certain foods. This may give doctors more authority when discussing nutrition – and other lifestyle behaviours – with a patient. An 'inflammatory index' could also be a thing of the future for food labeling. That would put the cat amongst the pigeons.



Forget the Polypill – How about a Polymeal?

You may have heard about the move to combine pills for high cholesterol, blood pressure and thrombosis into one 'polypill'. The aim is for people suffering a combination of lifestyle-related symptoms to be able to get all their pharmaceutical treatment in one go.

But medicines have side effects. And combining medicines like this is likely to add side effects to the side effects. So why not go more natural? Why not chose to regularly eat a combination of all of the foods known to have the biggest impact on these diseases?

That's the (rather sensible, the Professor thinks) idea of a group of Dutch researchers (so pragmatic the Dutch, aren't they), published in the *British Medical Journal*. The researchers took information on the health benefits of various foods from the published literature and the large longitudinal Framingham study in the US to pick out the foods shown to have best effect on reducing heart disease and increasing longevity. They also looked at the amount needed to be eaten daily, and calculated the number of extra years gained if these were eaten from age 50.

The foods, amounts, and percentage reduction of heart disease risk from eating each, and the combination of all, is shown below:

Ingredients	Amount	% reduction in Heart Disease
Wine	150ml/d	32%
Fish	114g 4x/week	14%
Dark chocolate	100g/d	21%
Fruit & Vegetables	400g/d	21%
Garlic	2.7g/d	25%
Almonds	68g/d	12.5%
Combined	-	76%

The expected increased life expectancy at age 50, with and without the polymeal, is shown below:

Intervention	Total life expectancy Effect	Difference
Men:		
Without Polymeal	28.7yrs	
With Polymeal	35.2yrs	+6.6yrs
Women:		
Without Polymeal	34.2yrs	
With Polymeal	39.0yrs	+4.8yrs

Men would benefit most from this type of diet – but then they live, on average, about seven years less than women anyway, so this would help close the gap.

It should be pointed out of course that the polymeal has been put together on the basis of health and not weight benefits. However, if eaten in the nominated amounts, and with the right ingredients, even the two foods in the mix that are often considered to have an effect on body weight (dark chocolate and nuts) would have minimal impact (that is, nuts without salt, and dark chocolate with a cocoa content of at least 85%).

Of course this also assumes that these foods aren't added to by extra fatty, sugary and high energy-dense foods. If this is the case, and given that the foods that make up the polymeal could hardly be called unpalatable, there's little excuse. Just sit down to a polymeal each day and enjoy it!

PROFESSOR TRIM'S TIMELY TOPICS

Some other reasons why the odd tippie may not be such a bad thing

Some of the best health news of late is the fact that not all that's nice is bad for us. Alcohol is a case in point. Research is consistently showing the positive health benefits of a moderate intake of alcohol (although a heavy intake leads to the opposite effect). More recently, the reasons for this are starting to be isolated; Alcohol (in moderation) has an anti-inflammatory effect, which balances other forms of low-grade inflammation caused by lifestyle factors.

As alcohol has been consumed for a significant part of the evolutionary cycle (indeed, animals are known to enjoy consuming fermented fruit with a high alcohol content), it is likely that we have evolved with a propensity for a moderate alcohol intake – moderate being 1-2 standard alcoholic drinks a day. In addition to the biochemical effect this can have, there is possibly also a psychological benefit in helping reduce stress.

Epidemiological studies have shown repeatedly that moderate consumers of alcohol have increased longevity compared to non-drinkers and heavy drinkers. And while there has been some suggestion that this might be because non-drinkers may be abstainers because they are sick from something which may kill them, the results are too consistent to support this. In addition, there is a variety of other new research, which adds support to the benefits.

In Denmark for example, researchers following nearly 12,000 Danes over 20 years, recently found that within both sexes, being physically active and being a moderate drinker (ie. up to 14 drinks per week) reduced the incidence of heart disease and all other causes of mortality more than all other combinations of drinking and exercise. The effect was greater for this group even than non-drinkers and heavy exercisers, non-drinkers and low exercisers or heavy



drinkers and heavy exercisers (*European Heart Journal* 2008;29:204-212).

Why alcohol?

A possible reason for this has been shown in American research that found that the internal lining of the arteries (called the intima) is thinner in drinkers than non-drinkers. Intima thickness is known to be associated with an increased risk of atherosclerosis and heart disease. In addition, alcohol is known to raise the good form of cholesterol (HDL), which

researchers now think may also have an anti-inflammatory effect.

In our own backyard, Dr Jennie Brand-Miller of Sydney University and Glycaemic Index (GI) fame, has found that the GI of a meal (ie. the score for a rise in sugars in the blood immediately following the meal), is reduced if alcohol is drunk with the meal. In this case it appears to be having a 'dampening' effect on certain adverse effects of the food eaten, which may

also be 'inflammatory'. Brand-Miller's work shows, as has been indicated before, that red wine works best for this, but even beer and gin lowers GI more than water (*American Journal of Clinical Nutrition*, 2007;85:1545-51).

Of course no-one is suggesting that alcohol is harmless – the social problems for example, are immense. Additionally, there's no suggestion that non-drinkers should be encouraged to drink for their health – although...a recent study with diabetic patients does show a decrease in diabetic symptoms with non-drinkers encouraged to consume one to two glasses of wine per day over a three month period.

About the only responsible conclusion that can be drawn is given in recent recommendations to improve post-meal blood sugars and fats (*Journal of the American College of Cardiology*, 2008,51(3):249-255). Among other proposals, the authors suggest:

"Consider consuming an alcoholic drink before or with the evening meal (for those without a history of substance abuse)."

A (slight) question mark on chocolate

Although dark chocolate was one of the foods isolated as having health benefits in the polymael (see this page), a recent editorial in 'The Lancet' suggests the benefits may be not so clear. The editorial isolated 'flavanols', or anti-oxidants in cocoa as being the healthy component and referred to a study published recently in which improved heart function followed eating dark chocolate with a high level of cocoa (the darkening substance) compared to a cocoa-free chocolate. However the editorial suggests some manufacturers of dark chocolate take out the bitter tasting flavanols, which make the chocolate bitter, thus leaving dark chocolate, but with no health benefit. They claim consumers can also be kept in the dark about the flavanol content of chocolate because manufacturers rarely label their products with this information.

Even if flavanols are present fat, sugar, and calories in the chocolate can detract from its benefits by causing weight gain. To get any health benefit, those who eat flavanol-rich dark chocolate (in the amounts suggested) should balance the calories by reducing their intake of other foods.

And while we're on the nuts

In the last issue of this esteemed rag, the professor reported on the change in attitude to nuts as a healthy food. As just about all nuts are high in mono-unsaturated, and not saturated fat, it's now thought these are good for the heart and good health in general – a sentiment testified to by the selection of nuts in the healthy polymael discussed in this issue. But nuts are still high in energy, and hence there is a question mark over their effects on body weight and therefore value for those trying to lose weight.

Now there may be a reason why the precious nut might not be so bad for weight gain after all. Researchers at Purdue University in the US have found that compared to peanut butter, peanut oil or peanut flour of the same calories, whole nuts seem to result in less weight gain (*International Journal of Obesity*, 2007; Oct 2). They tested why they thought this might be so by looking at the other end of digestion. Percentage fat in faecal weight increased with whole nuts compared to the other forms, suggesting that more of the energy in whole nuts is passed through the system. Although the difference was only a few calories, this was significant and could be important over time.

Exercise: How do you know if you're doing enough?

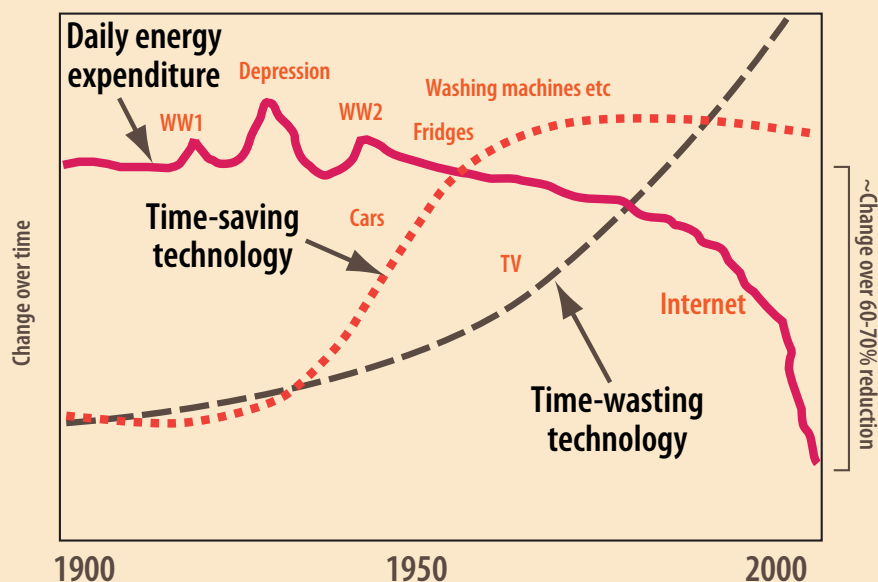
Exercise is like motherhood: it's not even worth discussing – except when it comes to how much is needed for weight loss or good health. Then it starts to get complicated.

Not that this was always the way. There was once a time when humans did enough during their normal daily life to get all the benefits that come from being active. That changed in the twentieth century, to the point where we had to consciously go and do something to stay lean and healthy (can you imagine tribal Aborigines strapping on the Nikes and going for a run?). New guidelines about how much exercise was needed were developed towards the end of the millennium, but even before the first decade of the new century, these are out of date.

Why? Because the ambient level of activity (eg. what we do all day as part of our lives) has decreased dramatically because of technology, and particularly the Internet. Figure 1 shows the changes that occurred over the last century to result in the average 21st century human burning about 1000 calories a day less from exercise than the average 19th century (and earlier) human. Amazingly, this is the equivalent of walking around 15km less per day one.

Figure 1: Estimated changes in energy use over time from 1900 to 2000

(from Vogel et al., *International Journal of Sports Medicine*, 2004;25:607-610)



So how much exercise (or perhaps more correctly physical activity) do we have to do to get back to normal? Figure 1 is an adaptation of the National Physical Activity Guidelines (which the professor helped develop) to take account of Bill Gate's sneaky trick to make us fatter (ie. the Internet). Table 1 (next page) is a little questionnaire developed for doctors to assess physical activity about patients. Check yourself on these and see what might need to be changed.

Losing weight – let us count the ways

If you're looking to lose weight, there's no shortage of 'experts' around to help. But it's usually only weight off the wallet they take. Not off the body.

So how do you know who to believe? Well, a recent publication which backed up Government guidelines on this, have listed the ways – and how successful each is. Here's a summary:

1. Herbal products

These are bought 'over-the-counter' and include a wide range of products ranging from seaweed to horseradish. There's no evidence that any work without a diet and exercise program though. So save your money.

2. Alternative treatments

Weight loss claims are made for everything from acupuncture to hypnosis to body wrapping. But again, there's no real proof that any of these work. Hypnosis may have some slight impact on changing food intake in someone who is able to be hypnotised, but the effect is hardly worth it.

3. Do-It-Yourself (DIY) diet:

It's difficult to gauge this one because something obviously worked for many people (otherwise we would all be fat). However, while any diet will work over the short term (by decreasing food intake) very few can be sustained over the long term. It's better to make a lifetime commitment to eating right than waste time and effort on special diets.

4. Commercial diet-based weight loss programs

There are two or three big ones of these depending on the country – Weight Watchers being the biggest. They work best as a support group (and hence usually better for women) – but be prepared to continue paying. The success rate is not clear because data are unpublished, but WW (one of the few that do publish results) claim a success rate of around 20% over 1 year. (Men seem to do much better according to published data on GutBusters – now Professor Trim's)

5. Exercise based programs

These include fitness centres and personal trainers as well as do it yourself ways of getting fit. The first thing to say about exercise is that it

Table 1: Are you doing enough?

Score yourself on the following questions to see if your physical activity load is enough for the times.

5.1 How many times a week do you usually do 20 minutes or more of vigorous intensity physical activity that makes you sweat or puff and pant? (e.g., heavy lifting, digging, jogging, aerobics, or fast bicycling).

3 or more times/wk	6
1-2 times/wk	3
None	0

5.2 How many times a week do you usually do 30 minutes or more of moderate-intensity physical activity or walking that increases your heart rate or makes you breathe harder than normal? (e.g., carrying light loads, bicycling at a regular pace, or doubles tennis).

5 or more times/wk	5
3 - 4 times/wk	3.5
1 - 2 times/wk	1.5
None	0

PA Score (5.1 x 5.2)

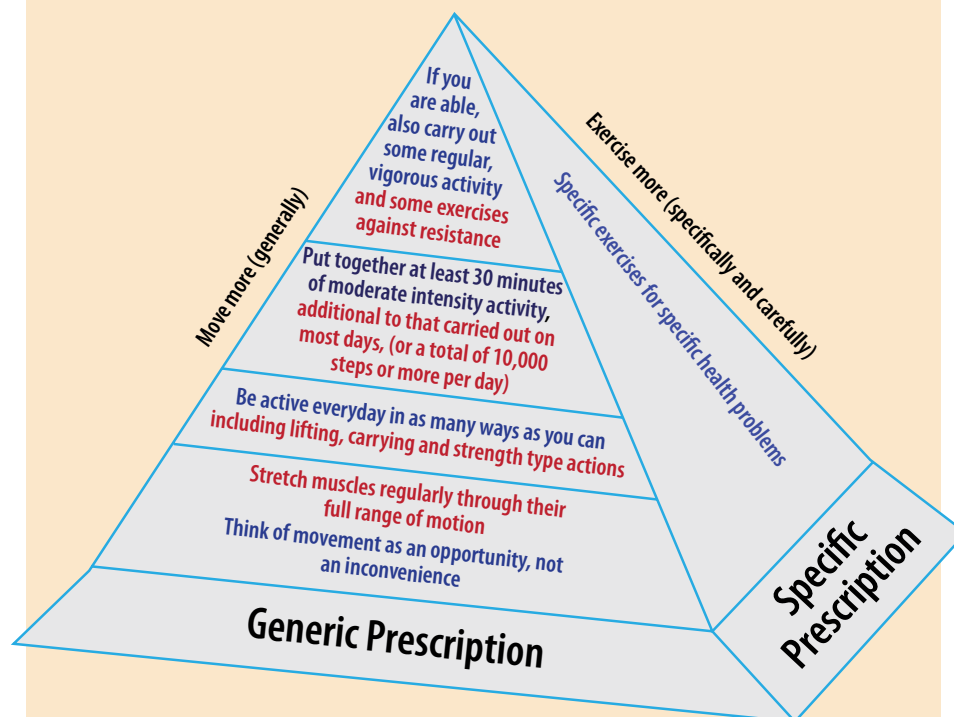
0-2 Minimal: Nowhere near enough – get cracking

3-4 Low: Slack, You can do better

5-7 Adequate: Adequate, but is that what you want to be – adequate/

>8 High...and good. Congratulations. Keep it up.

Figure 1: Proposed Physical Activity guidelines*



*This is an addition to the National Guidelines developed in 1999. The red print represents new guidelines which may be added if these were updated today.

doesn't strip the weight off as quickly as dieting. The second is that it does it better over the long term – so it should be a part of any program.

6. Counselling

You can get this from a good doctor, dietitian, psychologist or exercise physiologist (or now a combination of three through your GP). Look for the ones who specialise in weight control and see this person only as helping you – not doing it for you.

7. Pre-packaged meals

These are whole meals packaged and frozen for re-heating. In general, they provide low calorie, healthy meals and (provided you don't add a profito roll and ice cream dessert) can help reduce food intake.

8. Meal Replacements

These can be used once or twice a day (rarely three times) instead of meals. Hence they only work if they delay hunger, and while there have been some dodgy versions around for years, there are now some very effective ones. They can be used for up to three meals a day. But experienced guidance is recommended. The recognition of the value of these by obesity groups has now also meant a proliferation of products on the market. Look for those with good professional support.

9. Medication

There are a couple of drugs available from the doctor that can help add to the benefits of a lifestyle program. You'll need an experienced doctor to advise you on what is best. Also, don't expect these to work without a change in lifestyle.

10. Surgery

It used to be the last resort, but modern surgical techniques (particularly laproscopic banding) have now made it one of the most effective weight loss techniques available – provided it is followed up, again with the proper lifestyle change and with a team of experts including a psychologist, dietitian and exercise specialist.

11. Lifestyle modification

No matter what you do it comes down to this. Nothing will work without some form of lifestyle change, so why not do it all in one go. Programs like Professor Trim's for Men can help you do this.

For reference

Egger G. Helping patients lose weight: What works? *Australian Family Physician* 2008; 37(1/2);20-23



PROFESSOR TRIM'S TABLE TALK

DEEP DISH TURKEY PIE

Serves 6

*500 gms lean minced turkey
1/2 cup onion, chopped
1 cup green capsicum, chopped
1/2 cup tomato paste
1/2 teaspoon chilli powder
1 tablespoon cumin
1 tablespoon garlic powder
1 teaspoon onion salt
3 medium tomatoes, chopped
1 1/2 cups whole kernel corn*

Crust:

*1/2 cup flour
1/2 cup cornmeal
2 tablespoons sugar
1 1/2 teaspoon baking powder
1 tablespoon margarine (melted)
1/2 cup skim milk
1 egg white*

Topping:

1/4 cup shredded cheddar cheese

Preheat the oven to 375 degrees.
Brown minced turkey with seasonings, onion, green pepper and tomato paste. Pour into baking dish. Top with chopped tomatoes and corn. In a bowl, mix dry ingredients of crust together. In a separate bowl, mix melted margarine, milk and egg white. Pour liquid ingredients over cornmeal mixture and stir only until moistened (it will be lumpy). Drop in spoonfuls over turkey mixture. Sprinkle with cheddar cheese.

Bake for about 20 minutes or until "crust" is done.

THE PROFESSOR'S POETRY

Christians, Baptists and Jews

Mr Christian was a Baptist, Hiram Baptist was a Jew,
But the Jewish folk that I knew all were Capitalists too...
And the Capitalists were Masons, but the Masons all belonged
To the local Rotary where they weekly all would throng.

'Twas the Christadelphian dinner where the Butchers all got stoned,
and the Stones, Mr and Mrs, took the Balls and all went home.
Mrs Ball and Mrs Butcher, both are Feminists agreed,
though belong to Rosicrucians, Liberals WAFS and P&C.
And their husbands who are members of the Y and LCP,
At the TLC or RSL each other night would be...

But the Christians and the Baptists and the Butchers and the Stones
All had trouble with their children who were very rarely home.
And they scolded them and tolded them until their voices rang
Of the wicked, wasted, wanton ways of moving in a gang.

For they couldn't understand the reasons why they had to roam
With the TV, film and stereo cassette machine at home.
Now the Christians and the Baptists and the Butchers and the Stones,
Go to see their children monthly, in their new escape proof homes.

Philosophy of Love...

If you love something, set it free.

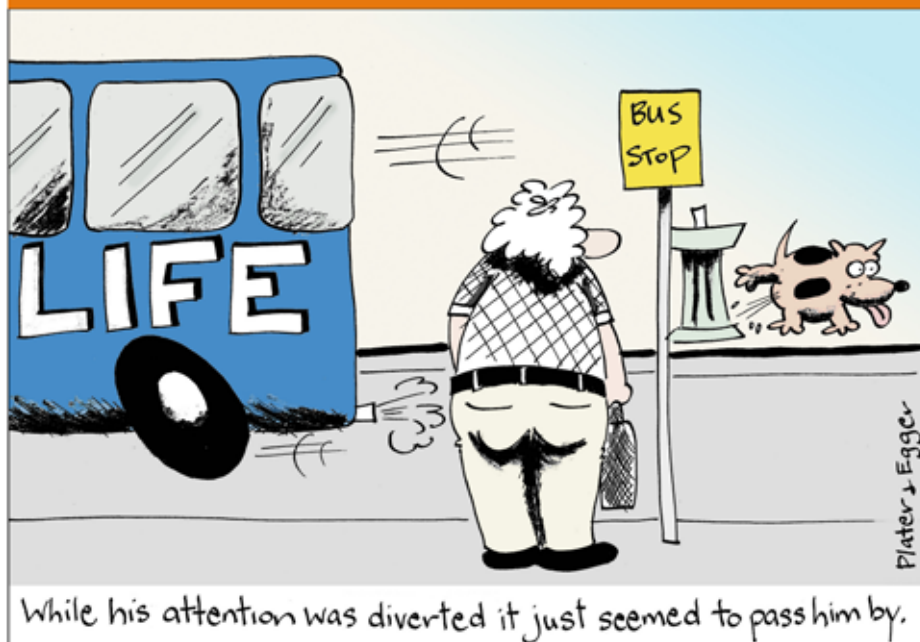
If it comes back, it will always be yours.

If it doesn't come back, it was never yours to begin with.

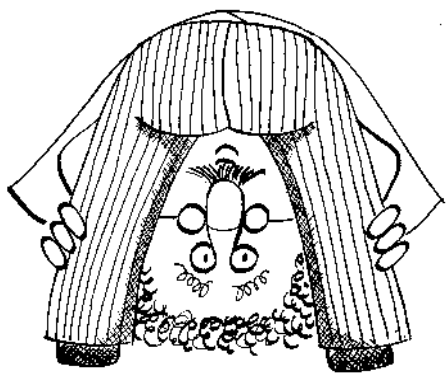
But...

If it just sits in your living room, watches your TV, messes up your stuff, eats your food, uses your telephone, takes your money, and doesn't appear to realize that you actually set it free in the first place, you either married it or were responsible for its birth!

TRIM'S TUMMY TICKLERS



PROFESSOR TRIM'S REAR END



The limits of endurance

What is the greatest endurance performance of all time? This is the question asked by Dr Timothy Noakes, noted South African exercise physiologist, in looking at recent historical events (*Advances in Experimental and Medical Biology* 2007;618:255-276). Dr Noakes claims a unique series of 6-day foot races contested between 1874 and 1888 by professional athletes from England and the United States was one of the first true endurance events.

These athletes typically would have burned about 60,000 calories during these races. Six-day cycling races like the modern day Tour de France, the cycling race across America (RaAM) and two running races across the width of the United States in 1928 and 1929 soon followed. Noakes estimates the total energy expenditures during these events was approximately 168,000, 180,000 and 340,000 kcal respectively. But, in terms of the total energy expenditure, all these performances pale when compared to that of Robert Falcon Scott's Polar party during the 1911/12 British Antarctic Expedition.

For most of 159 consecutive days, Scott's team man-hauled for 10 hours a day to the South Pole and back covering a distance of 2500 km. Their total energy expenditure per individual would have been about 1 million kcal, making theirs, by some margin, the greatest sustained endurance athletic performance of all time. It's one sure weight to lose weight.

A good walk can prevent a bad cold

Researchers at Baylor Family Medical Centre have shown that exercise can stop people from catching a cold – and the exercise doesn't need to be intense. While chief investigator Dr Jane Sadler says the basic advice for

preventing a cold centers on hygiene, particularly hand washing, she claims there is benefit gained from exercise done at moderate intensity. As exercise increases white blood cell counts, and white blood cells are part of the immune system which fights infection, 30 minutes of brisk walking a day, five days a week, can decrease your chances of catching a cold. Like all good things however, too much can have the opposite effect. Super athletes, tend to be on a razor's edge, where overtraining can actually increase their chances of viral infections.

Teaching Doctors to Teach Patients About Lifestyle

According to the *New York Times* (April 17, 2007), your professor is at the forefront of world health knowledge. Well, true, the NYT didn't specifically mention the professor, and no, there was no specific mention of Australia (probably not to confuse their readership into thinking there is something beyond the US border), but the implication was there in a discussion of the rise of Lifestyle Medicine as a new discipline in medical practice. The article points out that only three schools: Harvard, Loma Linda and Florida, are the only US (and, by definition 'world') training Universities currently run post graduate courses in Lifestyle Medicine, and would surely have mentioned the course now offered by Southern Cross University under the Professor's tutelage, had there been space.

Unlike the US however, Australia is advantaged by a medical system with provision for 14 different health disciplines to work together on this, and hence Lifestyle Medicine, as being promoted by a new Australasian Lifestyle Medicine Association, will have a wider ambit in Australia and New Zealand than in that other part of the world. For those wishing to acquire more knowledge, recognise this piece as a shameless plug for the first text-book in the field (*Lifestyle Medicine* by Egger G, Binns A, Rossner S. McGraw-Hill, Sydney 2008 p. \$69)

The 'fat-free' fallacy could be making us fat.

It is somewhat of a paradox that while there are more 'low fat' and 'fat free' products now on the market than ever in history, the obesity epidemic rolls on unhindered. Could there be a relationship? According to American

Paediatrician and author Dr Jaimie Bailes, this, indeed could be so. He claims he sees many children who are active, but also massively overweight and he puts this down to what he calls the "fat-free fallacy."

Health promotion initiatives to restrict dietary fat consumption are now common-place and have been so since the late 1970s. The assumption being that encouraging people to eat less *fat*, would mean they would eat less *calories*, or *energy*. The multi-billion-dollar food industry was quick to jump on the bandwagon. They began to produce fat-free everything. Meanwhile consumers, buoyed by the health message, felt that if food didn't have fat, it was OK to eat as much as you wanted.

Bailes claims (and logically so), that if fat was the problem, obesity would have decreased in the time that the sale of fat free products has skyrocketed. But the opposite has occurred. He suggests this can be put down to an excessively high carbohydrate intake, which, ultimately is converted to fat in excess, and in the meantime wreaks havoc with important insulin signalling systems, resulting ultimately in type 2 diabetes.

The answer; A diet high in protein and low in carbohydrate is Bailes' suggestion for long term weight management, but he does admit that a reasonable intake of carbohydrate (presumably low GI) is necessary. The high protein component (advocated herein by the professor since time immemorial), can help reduce hunger levels (remember 'hunger', not 'appetite') and result in less overall calories being eaten. And after all, this is what it is ultimately all about – reduce energy intake WITHOUT the pressures of hunger.

The moral: Don't be fooled by the labels 'Low' or 'No Fat'. Look to the total portion size – as well as the energy density (calories per gram) of the foods you're eating.

For reference

Bailes J. *No More Fat Kids: A Pediatrician's Guide for Safe and Effective Weight Loss*. NY, 2007.

The Professor's Wisdom Tooth

A woman marries a man expecting he will change, but he doesn't.

A man marries a woman expecting that she won't change and she does.