



PROFESSOR TRIM'S WAISTLINE

THE PROFESSOR'S FEATURES

SPRING 2006

Everything you wanted to know about motivation (but couldn't be bothered to ask)

Perhaps the most commonly asked, but least commonly answered question in weight control is "...how do I get/stay motivated to make the lifestyle changes necessary for successful long-term weight loss?"

Interestingly, this is not a question regularly asked by scientific researchers, whose snouts are usually so deep in the pharmaceutical trough that they could be accused of 'mooning'. Hundreds of millions of (tax-payers) dollars are spent each year looking for drug solutions to lifestyle-based problems, but virtually nothing is spent on motivation. Yet an understanding of this could save the country squillions in health costs.

In the absence of such illuminatory information, we have to go on the best available evidence. And this comes more from an understanding of why so many people *do* successfully maintain healthy lifestyle changes than why they *don't*. Why would someone deny the benefits of a warm bed on a cold winters morning to exercise for example, or choose the fruit salad rather than the profiterol dessert, when the grim reaper awaits the lean or lardy with equal anticipation?

The simple answer lies in the expected outcome of change and the *perceived benefits* in relation to the *perceived costs* of getting there.

Intrinsic vs extrinsic motivation

For all but the most masochistic, a change will not be maintained if the outcome is not better than the status quo. For someone who has never exercised, it may be hard to understand that feeling lean is a better alternative than feeling fat – because they have never felt it. The perceived cost of

getting there ie. limiting food intake and 'painful' exercise for this person, would thus be greater than the perceived benefits, and hence change is unlikely.

Yet anyone who has been lean and healthy knows that this feeling is enough to be its own motivation – it's *intrinsic* or internal to the individual. And it's where it feels better doing the things that maintain leanness than not doing them.



The goal is thus to get to this point. Getting to the point of *intrinsic reward* however requires getting yourself through a period where this doesn't occur and hence *extrinsic* rewards, or those external to the individual, have to be used at the beginning.

Getting through the early stages

In getting to the stage where weight loss becomes it's own reward, there are likely to be two distinct phases; one where there is a level of discomfort and a second where it begins to feel good

physiologically, but not necessarily psychologically. To get through these stages requires some special approaches like the following:

- **Set goals:** These should be short term, medium term and long term. As well as outcome goals, such as your ideal weight (see story this issue), also add some process goals, like walking >70,000 steps a week, or completing the 'Big Fat Desert Walk' in 2007 with the Professor Trim team (see this issue).
- **Use the mate system:** Get a friend/partner with a similar interest in losing weight and use each other for motivation.
- **Self-monitor:** Self-monitoring is the backbone of behaviour change. Write down how many steps you do each week, your weight, body fat, waist size etc. and keep this in a prominent position (ie. on the fridge).
- **Draw up a contract:** This should contain all you propose to do. Give it to a trusted friend with punishment clauses if these are not carried out.
- **Become aware:** Being aware of the 'feeling' stages you are likely to go through can help get through these. For example there *is* likely to be discomfort at the start, but notice how this gets better as time (and effort) increases.
- **Reduce barriers:** Barriers such as time, weather, work and family

in this issue

- Finding your ideal weight
- What is Lifestyle Medicine?
- Tips on exercise, intake, hunger
- Diabetic? walking faster helps

(Click these links to articles)

commitments are what stands between where you are and where you want to be. Have practical ways of reducing these when they arise.

- **Plan ahead:** Thinking about what you'll eat after you get hungry, or when you'll walk when the day is half gone won't work. This should be planned, like your working day, the day before – and written into a planning diary.

- **Use variety:** Don't be afraid to be flexible – try different types of exercise, foods etc. Inflexibility is the enemy of success, because when this doesn't happen everything fails.

- **Plan for going off the rails:** Falling off the wagon is not just possible, it's inevitable. However if you know this, you can pick yourself up and get back on without hardly missing a beat.

- **Mix with positive people:** Just as misery loves company, happiness breeds success. Get in with those who have a similar interest in success to foster your own success.

Improving your odds

Once you've started a weight loss program, there are a number of factors to beware of to make sure you continue in a positive direction. These include:

- **Don't miss more than 2 consecutive days:** Missing one day on your program is manageable (particularly given the flexibility option discussed above) and two is bearable. More than 2 days however and the habit tends to be lessened and easy to lose.

- **Be conscious of injury:** Injury can be a major limiting factor. So if you feel

this coming on, ease off and check the possible cause. It might mean changing shoes, changing exercise or checking with an expert.

- **Leave the high intensity**

exercise: While you can get added cardiovascular benefits from bursts of high intensity exercise, this can be dangerous (and painful) for the overweight, and is not necessary, as all movement burns energy. Slow down and enjoy it more.

- **Do what you enjoy most:** If you can't maintain what you are doing for the rest of your life, it won't work. Choose and alternative – that you enjoy.

- **Don't be afraid of change:** if all else fails you may have to make some major changes (job, family etc). Face up to these, rather than keep putting it off.

Motivating Yourself

In the vein of modern self-help practices, here are some motivational slogans to help keep you going:

- Imagine how good it will be to make acquaintance with an old friend again.
- As Spike Milligan once said, "life is just occupational therapy from birth till death." (So don't get hung up in the rafia work).
- Live each day as if it's your last (because let's face it, with your problems it could be).
- Think about what motivates you most and then fit what you can gain from weight loss around that.
- Think of all those people dependent on you – then think of yourself!

- Tell somebody close to you what you're doing.
- Everyone falls off the wagon. The smart ones get back on. The dumb ones have to hoof it.
- Think of movement as an opportunity not an inconvenience, and be active every day in as many ways as you can.
- Imagine making more melody on the night flute (without having to be a contortionist).
- Stare death in the eye daily (imagine how embarrassing it would be to have to go out in a coffin specially shaped to fit your gut).
- Enjoy the journey and the destination will look after itself.

TRIM'S TUMMY TICKLERS



Walking adds life to your years

From www.diabetesincontrol.com:

A moderate level of physical activity, such as walking 30 minutes a day, can lengthen life by 1.3 years and add 1.1 more years without cardiovascular disease, compared with those with low activity levels. Those who chose a high physical activity level in a study published in the *Archives of Internal Medicine* (Nov 14, 2005) gained 3.7 years of life and added 3.3 more years without cardiovascular disease. An editorial in the *Washington Post* did the math – invest 30 minutes of walking a day and you'll spend 49 days of the next 12 years of your life walking to gain 1.3 healthy years.

The Prof's Point

For longer than he cares to admit, the Professor has mouthed the platitude that 'prevention is better than cure'. Yet despite patronizing pats on the head by small thinking politicians, this has fallen on deaf ears. Yet logic dictates that we can all only benefit by letting the horse out to pooh rather than sweeping the stables. Now such a change may be on the way, not so much because of a brilliant flash of light, but a simple name change in how this is done. In this issue we look at a change in terminology from Prevention to Lifestyle Medicine which seems to be inciting interest amongst all levels of health professionals. The key difference – motivation. Now let's see (below) what it involves. ▼

The Professor's Big Fat Desert Walk

If you haven't heard about it, be now warned that the Professor (and a more experienced guide) intends to take up to 12 men on a 7 day walk through the Central Australian desert in May 2007. For those using this as a goal for getting rid of that extra flab, it will be necessary to prove a certain level of fitness by participating in warm up walks (see www.professortrim.com – home page) or getting a note from your mum. This could also be a prelude to more



interesting adventures such as a 7 day sea kayaking trip around the Torres Strait (7 islands with a local guide) in Spring of 2007 and a 3 day canoe trip down the Murrumbidgee in Autumn 2007. Now is the time to start getting ready – so be there or be round!

Lifestyle medicine: What's it all about?

Over 2 in 3 visits to the doctor in Australia in 2006 were due to a lifestyle-based cause. Of the fifteen major causes of disability, all have a significant lifestyle component and inactivity and obesity are now set to overtake smoking as the major preventable causes of disease in most western countries. So how are we dealing with this?

One way is the development of a new health discipline, called Lifestyle

Medicine. Doctors more interested in building a fence around patients before they fall off a cliff than working the ambulance at the bottom of the cliff, are at the forefront of this, with a new breed of Practice Nurses working to help people change their lifestyle rather than take a pill to correct a problem after it has begun.

The shift has give rise to a new way of understanding health, which

is summed up in the differences with conventional medicine shown in the table below. Indications are that this will set a change in the pattern of health services the like of which has not been seen for many years.

As usual, the Professor is there at the door waiting to welcome people. His new book, *Lifestyle Medicine for GPs and Practice Nurses*, will be out in 2007.

Table 1.1: Differences between Conventional Medicine and Lifestyle Medicine

Conventional Medicine	Lifestyle Medicine
'Downstream' focus	'Upstream' focus
Treats individual risk factors	Treats lifestyle causes
Patient not required to make significant change	Patient required to make significant change
Emphasis on prescription	Emphasis on motivation and compliance
Goal of disease management	Goal of primary/secondary/tertiary prevention
Less consideration of environment	More consideration of environment
Best suited to acute disease	Best suited to chronic disease
Side effects justified by outcome	Side effects considered part of outcome
Referral to other medical specialties	Referral (also) to allied health professionals
Doctor generally operates independently	Doctor is co-ordinator of a team

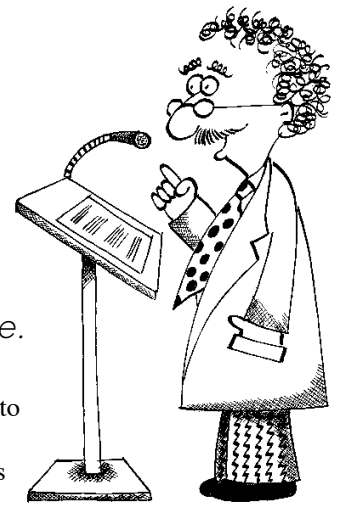
TRIM TIPS – BECOME A VARIETY ACT

Research has shown that people who eat a wide variety of foods (*at least 20 different types a week*) are generally healthier than those who eat less. Variety can be increased by adding herbs and spices or looking

for foods that you may not easily come across. If fat is kept low and variety high, you're guaranteed of keeping the waist down and the health up. The rest is up to your genes.

PROFESSOR TRIM'S TIPS

In acknowledging the fact that we all lead busy lives, the Professor has introduced a short-cut to learning the latest on weight loss in this section, providing short tips for exercising, reducing energy intake and reducing hunger. Next issue we'll look at a one paragraph guide to the origins of the universe and how to rid the world of all known disease.



1. TIPS FOR EXERCISING

The decline in 'incidental' activity in modern western life has significantly reduced daily energy expenditure. And while a return to the pre-industrial revolution days is unlikely, the addition of certain activities as part of daily living can help to compensate for the decline in overall energy expenditure. Remember, all movement burns energy and energy burned, results in a decrease in body fat. Below are some ways of doing this:

Don't sit when you can stand:

Standing requires you to carry your own body weight and any activity where the body weight is not supported helps burn energy – about 1.2 times that of sitting.

Don't drive or ride when you can walk: While the car is one of the 20th century's greatest inventions, it's also one of the most fattening. Even a short walk can help.

Minimise remote control use:

Technology has now made these available for TVs, stereos, garage doors, and any number of household appliances. Add up the energy saved and you can add up the fat gained.

Do it yourself. Don't ask

someone else: Instead of asking the kids, a spouse or a staff member to get something for you that might be handier to them, get it yourself and add to your fat loss.

Use technology sparingly:

Emails and telephones are two of the most fattening tools of modern society. Where possible, take the message by hand (or foot).

Use household machinery

sparingly: Instead of always using the latest household appliances, mow the lawn and wash the dishes by hand – at least sometimes.

Hang out the clothes. Don't

use a clothes drier: It mightn't sound like much, but doing it this way, you burn energy and the environment saves it.

Carry your bags. Don't use a

trolley: Carrying a weight in the arms increases energy use and helps to burn fat. Walking with a trolley helps, but carrying the bags is even better.

Walk up (and down) stairs.

Don't use a lift or escalator:

Walking up stairs is an economical way of increasing energy use. Even walking down stairs is better than walking on the flat, in terms of energy used.

Park away from your

destination and walk: Don't fret about missing that parking spot right outside the door of the gym. Use the walk to get there as part of your exercise program.

2. TIPS FOR REDUCING ENERGY INTAKE

Fat is generally considered to be the most energy-dense food leading to obesity. But researchers are beginning to think this may be too simplistic. Other aspects of food also need to be considered in any analysis of obesity causes. These include the following:

Portion size: For some time this has been neglected in favour of the importance of fat in foods. But it is possible to eat too much food, even if fat in these foods is low. Portion size is usually the second most important factor to control after fat intake.

Energy density: Energy density refers to the amount of energy (calories) per gram of food. In general those diets which are least fattening (eg. the Mediterranean diet) are those which have a low energy density. The highest energy dense foods are those with concentrated fat and sugar. The lowest have a high content of fibre, water and/or air.

Glycaemic index: The glycaemic index (GI) refers to the speed with which a food is digested. Low GI foods are digested slowly and as a result are thought to lead to greater feelings of satiation. This would mean less total

food is likely to be consumed.

High GI foods are absorbed quickly and are likely to result in more food being eaten. You can find the GI scores of foods in books like *The GI Factor* by Dr Jenny Brand-Miller or at www.glycemicindex.com.

Satiety Index: The satiety index (SI) is a bit like the GI in numbering foods. However the SI numbers according to whether these are either high or low in their level of appetite satisfaction. High SI foods are likely to lead to less hunger and therefore less overall food intake. Tables are currently being developed which combine scores for GI and SI.

Palatability: Palatability is obviously important in determining how much food is likely to be eaten. In general, highly palatable foods are energy dense and high in fat. The task is to find palatable foods, which have a high SI and low GI to get maximum benefits.

Variety: A high variety in food, while maintaining all the above factors helps to ensure a manageable lifetime eating pattern. It's known that obese people eat a large number of foods, but these are generally high energy dense. Ensuring at least 40 (low fat; low energy dense) foods a week is now recommended for best health as well as weight loss.

Eating situation: It's well known that people eat more when they eat in the presence of others. Social eating also leads to less inhibition and thus tends to cause greater intake of energy. In a recent study in the US, it has been found that there is a correlation between obesity levels and the number of meals eaten at restaurants, irrespective of the type of restaurant.

3. TIPS FOR REDUCING HUNGER

Hunger is a genuine problem in some overweight patients (although this has to be differentiated from 'appetite', or the learned stimuli associated with

eating). As there are currently few recommended drugs to deal with this, it has to be handled currently with natural processes. These are not likely to have an 'instant effect', but could help reduce the problem if followed regularly. You can try each and all of these when and where appropriate.

Always eat breakfast: If this is hard to start with, just have a half a slice of toast or piece of fruit (or a standard meal replacement – see this issue). Breakfast reduces the amount of food eaten for the rest of the day and raises metabolic rate.

Eat often: Don't go for longer than 4 hours without something (healthy) to eat. Otherwise you'll get hungry and eat the most fattening types of food.

Increase low energy dense foods: These are those that are low in sugar and fat and high in fibre. They're low calories per gram and so the more you have, the less you have of other foods. Snack on fruit for example, or high fibre biscuits.

Increase low Glycaemic Index (GI) foods: These are foods that are digested slowly. You can get a list from www.glycemicindex.com or from books such as *The GI Factor*.

Increase protein: Protein reduces hunger better than any other nutrient. But make sure a high protein food is not

high in fat such as with some animal meats. 'Fast' proteins such as whey, soy and seafood are best as they are absorbed quickly and reduce hunger.

Reduce eating out: Most people eat more when they eat out, particularly if this is a restaurant where you are paying for the food.

Reduce take-aways: Take-aways are generally high in fat and take-away consumption has been shown to be closely related to obesity.

Use hunger reducing appetisers: Certain foods eaten before a main meal can reduce the amount eaten at that meal. Spicy foods and caffeine often have that effect.

Avoid eating 'treats' (eg. chocolate) when hungry: Eating treats when hungry means that hunger will signal the need for that treat. Only eat treats after a meal, not during.

De-condition cravings: The association of food with a stimulus often increases appetite. A cup of tea for example can signal a piece of cake. To reduce this the pairing of a stimulus with a response has to be broken (ie. have an apple instead of the cake).

Change the environment: Don't shop while hungry; don't have fatty foods (eg. peanuts or chips) around while drinking alcohol; don't store fatty foods in the house.

PROFESSOR TRIM'S TABLE TALK



HONEY PORK WITH JULIENNE VEGETABLES (Serves 4)

350g new pork fillets
4 tablespoons honey
1 tablespoons olive oil
1/4 cup Worcestershire sauce
2 zucchini (*cut into thin lengthwise strips with a bean slicer*)
1 cucumber (*cut into thin lengthwise strips with a bean slicer*)
2 carrots (*cut into thin lengthwise strips with a bean slicer*)
sesame seeds (*toasted*)
watercress

1. Combine the honey, Worcestershire sauce and oil
2. Cut the pork into thin strips and allow to marinate for 15 minutes, then set aside the pork
3. Cook the marinade until thickens
4. Add pork again and toss for 3 minutes until pork is well coated and glazing
5. Arrange the vegetables on a serving plate, top with the pork fillets and lightly sprinkle with sesame seeds
6. Garnish with watercress

FAT = 3gm / serve

Walking Faster Improves Diabetes Control

It's been known for some time that walking is one of the best ways for sufferers of type 2 diabetes to control their disease. More intense exercise is thought to have an even greater effect. Now a small Canadian study (*Diabetes Care*, July 2006) has shown that people suffering diabetes can get more out of their daily walks by simply picking up the pace to improve cardiovascular and blood sugar control.

The *Pick Up the Pace* program with people who already walk around 10,000 steps a day showed that increasing the speed of walking by around 10% (ie. from about 90 steps/min to 100 steps/min) elicited significant improvements in heart and respiratory fitness over 12 weeks.

The *Pick Up the Pace* program led to significant improvements in subject's heart rate response to exercise and decreases in their blood sugar levels.

In a prior study, the researchers found that individuals with Type 2 diabetes naturally walk at a speed that is slower than that associated with the minimal intensity needed to derive health benefits, despite increasing the number of steps taken in a day. It seems a stop watch may be a good partner for a pedometer in the battle against Type 2 diabetes.

THOUGHT FOR THE MONTH

*"Always remember
you're unique – just like
everyone else."*

TRIM TIPS

KEEP UPRIGHT

It may not sound too important, but staying on your feet, instead of sitting down while at the Barbie, is going to help burn some extra energy, and hence fat (off you, not your food). Standing is always more energetic than sitting and walking more than standing. In line with 'regarding movement as an opportunity, not an inconvenience', in this case you don't even need to move.

THE PROF'S POETRY

In the interest of gender balance – and to show he's not totally sexist, our poetic pleasantry this issue concerns the vagaries of transplants for females.

Mrs Florentine E. Kant

Mrs Florentine E Kant,
Last week had a heart transplant.
Now she boasts with mirth and glee,
"There's very little left that's me."

And she's right so I suppose.
Especially since the plastic nose.
There's now much less than 10%,
She hasn't either bought or rent.

A plastic fact, a rubber chest,
A brand new seat on which to rest.
A chin remade from many more,
Than one would find in a Chinese store.

A plastic kidney, one new lung,
A brand new grafted ab-do-mun;
A liver ruined by the grog;
A hand once mangled by a dog;

Some lifted arches, lowered ears;
Transplanted hair that takes off years;
A bi-pass valve, a rubber gut;
But not one freckle, mole or cut.

Oh what a shame that pounds and pence
Can purchase not an ounce of sense.

THE PROFESSOR'S PRACTICE

Finding your ideal weight

*How heavy should you be?
Well meaning health bodies
will tell you this is based on
your body mass index (BMI) or
weight over height, squared.
But BMI discriminates against
the more muscular, against men
and against the aged (who
shrink with age but may not gain
weight). For a top level Rugby
player to be advised to be within
a BMI of 19-24 can be ridiculous. So what other measure can
be used?*



The professor's pick requires two simple measures and a calculator. The measures are:

1. weight, as measured by ordinary scales, and
2. percentage body fat, as measured by Bio-Impedance Analysis (BIA) scales (these can be purchased economically off the website – www.professortrim.com – they also measure weight).

The formula for ideal weight then is: $\text{Lean Body Mass (LBM)} / 1 - \text{ideal body fat \%}$ where:

$\text{LBM} = \text{weight} - \text{fat weight (in kgs)}$

$\text{Fat weight} = \text{weight} \times \% \text{ body fat}$

$\text{Ideal body fat \%} = 12 \text{ to } 24\% \text{ (men) or } 15 \text{ to } 35\% \text{ (women)}$

The variation in ideal body fat makes it then possible to set different ideal weight goals, depending on starting body fat. For example, a 100kg man who is 30% fat will have $100 \times 0.3 = 30$ kg of fat weight and therefore $100 - 30 = 70$ lean body mass.

Goal 1 may be to get to 25% fat.

Hence goal weight will be $70 / 1 - 0.25 = 93.3\text{kg}$

Goal 2 may be to get to 20% fat.

Hence goal weight will be $70 / 1 - 0.20 = 87.5\text{kg}$

Goal 3 may be to get to 18% fat.

Hence goal weight will be $70 / 1 - 0.18 = 85.4\text{kg}$

Goals 1, 2 and 3 might be short term, medium term and long term goals. Using this formula, your goal weight is not only dynamic, but it's based on fat, rather than the less important measure, weight.

International Congress on Obesity

For the more inquisitive amongst you – The 10th international Congress on Obesity is to be run at the Sydney Convention Centre from the 3-8 September this year. And while much intellectual gnashing of teeth will go on over such obscure subjects as neuronal control of appetite, brain chemicals and metabolic homeostasis, and psychopharmacogenomics of weight control, the Professor's little corner is concerned with what works and what doesn't in the clinical practice of weight loss. Public access is available. For details see www.ico2006.com.

TALKING TURKEY WITH TRIM



The questions in this issue have been selected around the use of meal replacements for weight loss, such as in the Professor Trim program.

Q. Do I have to substitute the same meal each day with KicStart?

A. Definitely not. For the first part of Professor Trim's program we suggest a schedule of 1 or 2 meals a day to get quick weight loss to increase motivation. Which meals are replaced is really up to you.

Looked at dispassionately, it would seem obvious that the biggest meal, in terms of calories, for most people is dinner at night. Hence missing this would mean a greater energy deficit and therefore more likely better weight loss. But this has to be balanced by practicality. Dinner for many, is a social occasion, when you sit down with others to eat. Having a shake while others eat a standard meal can be difficult.

The next biggest meal is usually lunch, and for some, it is convenient and time saving to replace this with a MR. But if this is not feasible, the next best meal is breakfast. MRs are usually taken for one or two meals a day. Replacing three meals a day is reserved only for the morbidly obese with life threatening health problems. Close supervision by an experienced clinician is always recommended.

Q. If I am getting good success can I continue taking the KicStart meal replacement into the second stage of the program?

A. Not only the second stage but for ever. There is nothing magic about these products. It's just that they reduce the total amount of energy (calories) taken in over the course of a day by reducing hunger. Even if this is only 100-200 calories a day less, it can add up to several kilograms over the course of a year.

The proof of the pudding is also in the eating: The Professor notes for example that all the scientists he knows researching MRs use these themselves, even though, not unexpectedly, none have a significant weight problem. When questioned, they claim that MRs are not only convenient for a busy person, taking little time to prepare and consume, but they do not leave one with the typical post meal tiredness (post-prandial slumber) that occurs after a meal, particularly in the middle of the day.

Q. Is there a special time that I can have the added foods (fruit, veges, snack etc) with meal replacements.

A. There doesn't have to be, but the trick is to prevent a rise in hunger, which can then lead to inappropriate food choices. This means generally having a snack within about a 4 hour period of taking a meal replacement.

Many men also find that mixing some fruit (bananas, strawberries) with their meal replacements helps improve the taste as well as delay satiety even more.

If snacks are taken however, it is important to ensure that these are low energy dense so they do not overcome the advantages of taking the MR.

Q. I have trouble with business dinners, lunches etc. It's a bit hard just to take a shaker and mix up a meal replacement while the others are hoeing in.

A. There are several ways of coping with this – given the right level of motivation. If it's irregular, the extra calories can be 'traded off' the next day or on the weekend. In any case, foods chosen at the meal should be low in energy density. If you have a choice, go to a Japanese restaurant, because this is one of the lowest energy-dense restaurant meals you can get. Thai food (or other spicy food) is also good if the fatty sauces and trimmings can be avoided. Spicy foods tend to increase metabolic rate. Other tricks are:

- If possible try to park a distance away and walk to and from the meal.
- Ask for grilled, rather than fried foods (e.g. fish). Most restaurants will now accommodate.

- Avoid entrees and deserts (or just have a fruit plate) – except perhaps sashimi or sushi or other low energy-dense Japanese entrees.
- Don't drink (alcohol) before 6 pm (ie. at lunch)
- Have a meal replacement about a half an hour before you go out for a business lunch. This will generally guarantee that you eat less at the lunch.

Q. A criticism of meal replacements by some nutritionists is that they don't teach good nutrition.

A. This is a valid criticism and one that supports the notion of a good weight loss program accompanying the meal replacements. While replacements of some meals can successfully occur for ever, this is unlikely to have a lasting effect if the wrong foods, and too much food is eaten at other times of the day. For this reason, the use of meal replacements bought from a chemist or supermarket, without clinical supervision of an accompanying education program, is not recommended. Anyone going on these and thinking they can then just go off them once some weight has been lost is likely to wind up heavier than when they started.

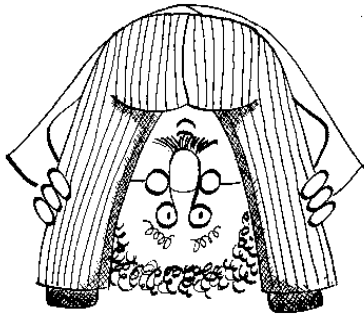
Q. Is there an ideal nutrient mix for meal replacements?

A. The ideal mix would be one that (a) guarantees good nutrition and (b) increases satiety and therefore decreases hunger for longer.

The first part (the nutritional mix) is not hard to do as we now know what a good nutritional balance should be. The second part is a little harder because researchers are still trying to find out what the best mix is for reducing hunger. There are a couple of good indications: 'Fast' protein from whey is one, and this is easy to add to a drink mix because it is in powder form. Fibre is another, but non-soluble fibre is usually bulky and therefore would take up too much space in a drink mix. The use of soluble fibre such as gums and pectins on the other hand can do the trick just as well. Finally, calcium and the right protein/calcium mix seems to not only reduce hunger but result in greater energy loss through the faeces.

No doubt we'll find better mixes of ingredients as these are improved. There is little doubt however that the second generation of meal replacements that are being used now is a significant improvement on the first generation.

PROFESSOR TRIM'S REAR END



Fish oil (high DHA type) combined with exercise can reduce abdominal fatness

Although oil is fat, and fat in food causes fat on the body, an Australian study has shown that fish oils combined with exercise could actually increase the rate of fat loss from around the waist. A study by Alison Hill, from the University of South Australia (*Asia Pacific Journal of Clinical Nutrition*, 2005;14 (Suppl):S57) showed that 6g (or 6x1g capsules) of fish oil daily for 3 months reduced body fat by 5% especially from the abdominal (visceral) region, only when combined with moderate aerobic exercise for 45 minutes 3 times a week. The groups that were placed on fish oil alone or exercise alone did not lose abdominal fat.

It is known that omega-3 fatty acids from fish oil increase the expression of fat burning enzymes, but the implications of this in humans have not been entirely clear. This study suggests that although fish oil increases the expression of fat burning enzymes, taking it alone will not have a significant effect and that it needs a driver – exercise – to increase metabolic rate and lower body fat. It's not known whether the same effect could be facilitated by eating oily fish and exercising. The supplementation in the current study (6g) was quite high and might be hard to obtain through eating whole fish.

Laughing off fat

It's said that 'laughter is the best medicine'. But medicine for what? Researchers at Vanderbilt University in Nashville suggest it may be for reducing obesity (*International Journal of Obesity*, 2006; May 2). They studied the extra energy expended in a number of individuals confined to a metabolic chamber during, and after watching a 5 minute movie designed to evoke laughter, compared to one unlikely to do so. (Metabolic chambers are

small vacuum-sealed rooms in which extremely small changes in energy expenditure can be picked up in individuals by changes in temperature). The researchers found there was a 10-20% increase in both energy expenditure and heart rate following a good laugh, compared to not laughing. On this basis, they calculate that 15 minutes of laughter a day could increase energy expenditure by 10-40 Calories a day which, everything else being equal, could result in a 0.5-4kg weight loss in a year.

The Professor's slant: This surely provides support for importing *Biafran* comedy into the US, as clearly American sitcoms do not work!

Discrepancy in coffee research may come from gene differences

If you hadn't noticed, some people seem to be affected by caffeine more than others. You can check this by asking any roomful of people how many can have a strong cup of coffee and then sleep soundly after it, and then how many cannot. The split is usually about 50/50.

There's also years of conflicting research showing that caffeine *is* associated with some health problem, then follow-up research to show that it *isn't*, leaving us in a quandary about the advantages or disadvantages of the substance.

Now the issue appears to be closer to resolution with the finding that genetic differences between people differentiate between 'rapid' and 'slow' caffeine metabolisers and the effects of caffeine on heart disease (*JAMA*, 2006;295:1135-1141). Using a large number of Costa Ricans who had been hospitalized with heart disease over a 10 year period, researchers found a link between one particular expression of a gene (CYP1A2 if you are interested) and another (the 1A version vs the 1F version). They found those with the 1F version (slow metabolisers) had heart disease rates that increased with the number of cups of coffee drunk per day, whereas those with the 1A version (slow metabolisers) did not. This suggests that caffeine consumption may be a risk factor for some people – with the wrong type of coffee gene.

Lose more weight, get more sex

Women and men who lose only 10 percent of their total body weight report significant improvements in their sexual quality of life, according to a paper presented at the North American Society

for the Study of Obesity annual meeting in Vancouver.

In a study carried out at the University of British Columbia, the prevalence of obese people who reported difficulty at least sometimes in six different sexual quality of life aspects ranged from 19 to 67 percent. Women were more likely to report problems than men – women were twice as likely to say they did not want to be seen undressed and five times more likely to report not enjoying sexual activity at the start of the study.

However, on average, difficulties in all six areas of sexual quality of life showed improvements with weight loss. The percentage of women reporting difficulty at least sometimes dropped by as much as 50 percent on several aspects of sexual quality of life with weight loss. The improvement appeared to reach a maximum with a weight loss of approximately 11 percent, the researchers said.

Tooth loss linked to increased risk for heart disease

Tooth loss could be associated with an increased risk for coronary heart disease (CHD), according to findings from a telephone survey of over 41,891 adults aged 40 to 79 years looking at Behavioral Risk Factors in health in the US [*American Journal of Preventive Medicine* 2005;29 (supp 1):50-56].

There was a significant association between the extent of tooth loss and heart disease prevalence. Heart disease risk was increased according to the number of teeth missing and the risk remained, even after adjusting statistically for a range of other factors. Why should this happen? The answer may be a little more clear than is obvious at the outset.

The first thing that occurs with a decrease in metabolic health, and particularly increased obesity, is a blocking of the small blood vessels at the extremities of the body – hands and feet. There are also small capillaries in the eyes and gums however and these also become less efficient with an increase in blood sugars and a decrease in insulin resistance. This can lead to periodontal disease in the gums, with decreased circulation resulting in teeth becoming 'starved' of nutrient and thus ultimately falling out. Gum disease and tooth loss is a good first sign of diabetes, but diabetes is also a risk for heart disease and hence the unlikely connection: Tooth loss could be a risk for heart disease.