

# ALL-PARTY PARLIAMENTARY GROUP ON OBESITY

## Report

Wednesday February 9<sup>th</sup> 2005

### OBESITY AND DISEASE

### Cholesterol and Stroke

**Officers:** Co-Chairs: Dr Howard Stoate MP & Mr Vernon Coaker MP  
Vice Chair: Mr Michael Fabricant MP

**Contact:** Mrs Helen Johnson  
National Obesity Forum, PO Box 6625, Nottingham, NG2 5PA  
Tel/Fax 01438 840981  
Email: [national\\_obesity\\_forum@ntlworld.com](mailto:national_obesity_forum@ntlworld.com)

*The All-Party Parliamentary Group on Obesity is supported by **The National Obesity Forum***

## ALL-PARTY PARLIAMENTARY GROUP ON OBESITY



*The All-Party Parliamentary Group on Obesity  
is supported by  
The National Obesity Forum*

### **OBESITY, CHOLESTEROL AND STROKE Wednesday February 9<sup>th</sup> 2005**

#### **Introduction**

This is the report of a meeting of the All Party Parliamentary Group on Obesity, held at the House of Commons on Wednesday February 9<sup>th</sup> 2005.

In 2005, the All Party Parliamentary Obesity Group plans to hold a series of meetings around the common theme of obesity and disease. Wherever possible, the group will be collaborating with other relevant All Party Groups and involving as wide a range of speakers from advocacy, research and professional organisations as possible. At the end of the series of meetings, we plan to publish a report of the presentations and discussions that have taken place.

The first meeting in the series looked at ***obesity, cholesterol and stroke***.

Three speakers addressed the meeting:

- Sandra Field, South London Regional Manager for The Stroke Association
- Eve Knight, representative, British Cardiac Patients Association (BCPA)
- Louise McCombie, weight management adviser, Counterweight Project on behalf of HEART UK

Both Eve and Louise were representing Cholesterol UK, an active advocacy coalition of two charities, HEART UK and the BCPA.

Over 40 people attended the meeting, representing a wide range of commercial and public sector organisations, government agencies, MPs, academics and healthcare professionals. A complete list of the organisations represented is appended.

#### **Speaker Presentations**

##### **Sandra Field**

Sandra opened by explaining what happens in the case of a stroke. 85% of strokes are ischaemic, meaning that there is tissue death because of either thrombosis (a solid clot of blood in artery supplying brain) or an embolism (a clot or other substance, such as fat, cholesterol, blood platelets) carried from elsewhere in the circulation.

15% of strokes are caused by haemorrhage. This is caused by bleeding in the brain, a burst blood vessel (e.g. artery) or high blood pressure, which can weaken an artery. The artery bursts and damages tissue, resulting in brain damage.

Sandra then outlined the facts about stroke:

- Each year over 130,000 people in England & Wales have a stroke, over 85,000 of which are a first ever stroke
- Every 5 minutes somebody, somewhere, is having a stroke
- 1 in 3 people die within the first 4 weeks following the stroke
- Stroke is one of the largest causes of death in this country (the third biggest killer after cancer and coronary heart disease)
- Stroke is the largest cause of disability in this country
- At any one time in the community, there are over 300,000 people disabled by strokes
- Stroke kills three times as many women in the UK as breast cancer.

Stroke can lead to a range of possible effects, including:

- Death
- Paralysis
- Incontinence
- Speech and language problems
- Swallowing problems
- Loss of sensation
- Loss of awareness
- Memory problems
- Visual problems
- Personality changes
- Uncontrollable emotions

There are many risk factors for stroke, including poor diet (such as too much salt or fat), smoking, binge drinking, age and inactivity. There is a clear link between obesity and stroke. Overweight people are more likely to have high blood cholesterol levels and high blood pressure than people of a normal healthy weight. Both high blood pressure and high cholesterol are risk factors for stroke, as is diabetes. The distribution of fat is also important, with abdominal fat carrying greater risk than fat on the hips and thighs.

Unfortunately, the risk factors don't just add up – they multiply! For example:

- Smoking doubles the risk of having a stroke
- High blood pressure increases the risk of stroke seven-fold
- Binge drinking (more than 6 units in 6 hours) increases the risk of stroke five-fold
- However, all three increases the risk by  $2 \times 5 \times 7 = 70$  times!

Ethnicity is another risk factor.

- African-Caribbeans are twice as likely to have a stroke as Caucasians (*Ref: Stewart. South London Community Stroke Register 1999. British Medical Journal 318:7189, 967-971*)
- High blood pressure is above average in ethnic minority groups, especially African-Caribbeans and South-Asians (*Ref: Cappuccio FP et al (1997) Prevalence, detection and management of cardiovascular risk. Heart 78, 555-63*)

- African-Caribbean people have a 50% increased risk of diabetes – which is in itself a major risk factor for stroke (Ref: Raleigh (1997) *Diabetes and hypertension in Britain's ethnic minorities. British Medical Journal 314: 7075, 209-213*)

The Stroke Association supports tackling the problem of obesity through education, legislation and improving activity levels across society which is affordable and accessible to all. Sandra then went on to outline some of The Stroke Association's recent campaigns, which include:

- Early Day Motion 1426 – a joint EDM between The Stroke Association and Cholesterol UK, where 1 in 4 MPs supported calls for a national cholesterol awareness campaign
- Stroke Awareness Week
- Activity with The Obesity Awareness and Solutions Trust (TOAST)
- Working with schools and, in particular, 4-11 year olds to raise awareness of the importance healthy eating and activity – Sandra introduced the “stroke preventers” (see figure 1)

Figure 1: The stroke preventers



So far as Government and industry are concerned, initiatives like the “Choosing Health” White Paper, and measures around food labelling and marketing are very welcome. The Stroke Association firmly believes that people will choose health if they are given the right opportunities and the ability to make an informed choice. The key message has to be that people should stay active and balance their energy intake with out-take, if they want to reduce their risk factors for stroke.

### **Eve Knight**

Cholesterol UK is a coalition between two independent advocacy organisations: HEART UK and the British Cardiac Patients Association. Cholesterol UK's interest in this area emerges because:

- raised blood cholesterol is the greatest single heart health risk factor, contributing to almost half of deaths from coronary heart disease (CHD)
- cholesterol is one that can be modified and managed, often through diet and lifestyle changes
- cholesterol plays an integral role in related diseases/conditions and should be a focus for public health initiatives to successfully improve the health of the nation

Cholesterol UK campaigns for policy change to achieve:

- awareness of high cholesterol levels as a serious risk factor for heart disease and stroke in the wider population
- a decrease in cholesterol levels through diet and lifestyle changes
- increased awareness that cholesterol can contribute to heart health risk in obesity and diabetes
- greater access to heart health check-ups, including cholesterol tests
- practical guidelines for healthcare professionals to help individuals adopt healthier diet and lifestyles

The theory around cholesterol is interesting. According to the Health Development Agency in 2004, “reducing cholesterol levels by even a small amount would prevent 25,000 fewer deaths...the 51% of the decline in CHD deaths in recent years in Scotland is attributable to risk factor reduction (reduction in smoking, cholesterol levels, blood pressure and improvements in social and economic deprivation).”

In reality, however:

- 125,000 people die each year from CHD – that is equivalent to the population of St Albans or roughly the electorate of two parliamentary constituencies
- 36.4 million people (70% of UK adults) have raised cholesterol levels according to the current government target of 5 mmol/l total cholesterol<sup>1</sup>
- Despite declining numbers of deaths from CHD, the number of people *living* with CHD is increasing (12% from 7% 15 years ago)
- Raised blood cholesterol is a factor in nearly half of all CHD cases, greater than smoking, blood pressure or lack of exercise
- Only 14% of UK adults think cholesterol is a risk factor for CHD (BCPA survey 2001)
- Only 4% of GPs recognise cholesterol as *the greatest* risk factor for heart disease (CUK survey 2004)

When one considers the role of cholesterol in related diseases:

Obesity :

- Obesity and CHD are inextricably linked as obesity increases the likelihood of high cholesterol, high blood pressure and diabetes increases - key risk factors for CHD and stroke
- 10kg weight loss is estimated to reduce total cholesterol on average by 10%, LDL cholesterol by 15%, and triglycerides by 30%, and increases HDL by 8% with an obvious concurrent CHD risk reduction\*

Stroke:

- Raised cholesterol is a major risk factor in the 110,000 strokes suffered each year
- While cholesterol is less related to stroke than CHD, epidemiologically-speaking, it has been recognised that cholesterol lowering has shown reduction in stroke greater than expected and similar to CHD results

Blood cholesterol can be reduced in two ways:

- Medication
- Lifestyle changes:
  - Physical activity
  - Dietary changes
  - Weight loss

---

<sup>1</sup> The British Hypertension Society guidelines advocate a reduction in the current target from 5mmol/l to 4 mmol/l. If implemented, that would obviously lead to an increase in the numbers of people with raised cholesterol.

Cholesterol levels can be modified by diet and lifestyle. The key is to reduce risk – statins, whilst effective, are not a miracle cure.

You can reduce cholesterol levels using the following methods:

- Soluble fibre                    2%
- Weight loss                    10%
- Diet alone                    5%
- Soy protein                    5%
- Sterols/stanols                10%
- Statins                    30%+
- Physical activity

Eve went onto to explain that CHD prevention works, as is illustrated by the example of North Karelia in Finland. Finland was recognised as having one of the highest CHD rates in world in 1960s. Research identified raised cholesterol, related to diet, as a major risk factor. The North Karelia project started in 1972 and was rolled out nationally five years later. The project focused on changing dietary habits through health education/cholesterol awareness campaigns, community participation programmes, national guidance by government and heart associations, as well as food and agriculture industry collaborations.

What were the results? Between 1972 and 1995, CHD mortality in Finland fell by 65% (these results are prior to statins becoming available in the 1990's).

### **Louise McCombie**

As we know, the medical consequences of overweight and obesity are many and various. They include metabolic, endocrine, physical, psychological and social problems.

The benefits of achieving just a 10% weight loss are also well-established, and include the following:

- A 20% fall in total mortality
- A 30% fall in diabetes related deaths
- A 40% fall in obesity related deaths

So far as lipid profile is concerned, a 10% weight loss can result in:

- A 10% fall in total cholesterol
- A 15% fall in levels of LDL-cholesterol
- A 30% fall in triglycerides
- An 8% increase in HDL-cholesterol (sometimes known as "good" cholesterol)

As part of The Counterweight Project, a baseline audit of cholesterol screening and management was carried out. The results are in figure 2 and revealed, amongst other things:

- That insufficient numbers of overweight people are screened for lipid levels, or that screening is inadequate
- That the link between cholesterol and obesity is not communicated to general public well enough
- That practitioners are missing an opportunity to use that link to motivate patients to improve their cholesterol profile, as well as their weight
- That management not being optimised – prevention, diet and lifestyle messages
- That there is a preventative focus on children, rather than the adults who are the patients of today

The approach to effective obesity management has to be that small, incremental changes to diet and lifestyle can make a big difference – not only to weight, but also to cholesterol levels and other associated disease risk factors.

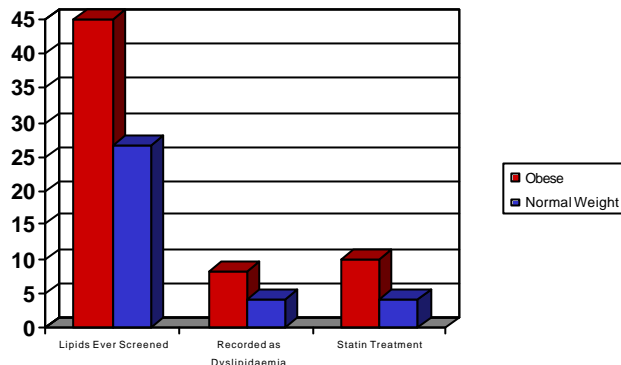


Figure 2

People should be advised to:

- Achieve a negative energy balance, through decreased energy intake and increased energy expenditure
- Aim for moderate weight reduction (5-10%), followed by a period of weight maintenance (1kg adipose tissue = 7000kcalories)
- Ensure an appropriate intake of fats:
  - reduce saturates
  - replace saturates with monounsaturates
  - encourage oily fish consumption
  - increase fruit and vegetable consumption to the recommended 5 portions a day

A 10-minute brisk walk equates to an average energy expenditure of 66kcalories. Over the course of a year, this equates to a weight reduction of 3.4 kilogrammes. Equally, a cumulative excess energy intake of just 30 calories a day (one-third of a chocolate biscuit) is sufficient to result in weight gain.

The Counterweight Project Cholesterol Screening and Management Intervention Programme is a structured Approach to weight management which aims to improve the focus on cholesterol by:

- Focusing on the importance of weight in relation to CHD risk factors (lipids, BP and diabetes risk) rather than purely aesthetic reasons
- Improved screening
- Giving consistent messages to patients regarding diet and physical activity
- Improving monitoring, thereby optimising overall management

Despite the cost of CHD to both the NHS and the economy, when one looks at government action to address the various risk factors, there has been no specific awareness campaign or other initiative directed at cholesterol. This contrasts with other risk factors (smoking, poor diet and physical activity) where specific measures or campaigns have been introduced.

There is clearly a substantial body of support amongst policy-makers and politicians for public health strategies:

- 86% of MPs would like to see greater action on public health (CUK survey July 2004)
- 163 MPs supported CUK and Stroke Association EDM calling for a national cholesterol awareness campaign
- Public see the Government as instigators of public health initiatives (King's Fund July 2004)

- A recent Health Development Agency report identified prevention and risk factor reduction as more effective than medication in reducing CHD mortality

All of this activity has resulted in a focus on disease prevention and the Public Health White Paper. Whilst these are very welcome, however, there is no specific cholesterol focus

The public are equally supportive of a public health strategy with surveys showing that the public are “deeply confused” about diet and health and that there is a new low in public awareness of cholesterol

The government’s current approach, however, is to focus on treatment and medication, rather than prevention and lifestyle messages. For example, the National Service Framework for CHD focuses predominantly on treatment NOT primary prevention. Moreover, the Wanless report reduced the threshold at which patients become eligible for statin treatment from a 30% risk of a CHD event over 10 years, to a 15% risk.

So what of the future?

- The Public Health White Paper is very welcome, but cholesterol is very undervalued and is not given clear priority alongside other heart health risk factors
- We need the support of existing structures and the new GMS GP contract (and its future revisions), to enable GPs to improve their patients’ health
- Targets for lowering cholesterol are likely to fall, which will mean that a greater proportion of the population will have levels above healthy limits
- Diet and lifestyle methods of cholesterol reduction are needed by everybody and should not be neglected.
- When it comes to CHD risk, prevention is better than cure.

But taking action on cholesterol is the missing link:

- The Department of Health//NHS spends £700 million on statins annually. This figure is rising and is tipped to reach £2.1 billion p.a. by 2010
- Government spends £200m on smoking cessation (with nicotine replacement therapy)
- Government spend on dietary education totals £52m- balanced diet message, five a day/fruit in schools

### **Conclusions**

- High blood cholesterol is a pre-requisite for excess heart attack and stroke. Cholesterol accounts for an estimated 47% of all cardiovascular disease
- We all need to get our cholesterol levels down
- Primary prevention works – and targeting the overall population can make a difference
- All Government action on CHD and stroke is welcome, but the current approach is too focused on treatment, NOT primary prevention
- Government action is needed to:
  - Fund a public awareness campaign on fat, which includes cholesterol advice
  - Provide an integrated services approach to accessible heart health check-ups, including cholesterol tests, thereby leading to greater understanding of personal risk
  - Draw up practical guidelines for a healthy heart diet to enable healthcare professionals to offer diet and lifestyle advice
  - Introduce a coherent public health strategy that includes diet and lifestyle for heart health

### **Audience discussion**

The following points arose during the audience discussion:

- There are a lot of conflicting reports about dietary cholesterol. Does adding dietary cholesterol actually result in an increase in blood cholesterol? If not, there is a danger

that we could 'demonise' fat, by suggesting that any fat intake is going to raise blood cholesterol levels.

- The relationship between obesity and stroke was not recognised for many years, but each year we are amplifying the risk of stroke by an estimated 10%. We need greater public health awareness of this relationship.
- An estimated 70% of adults have high cholesterol. What percentage of obese patients suffer from high cholesterol? Louise McCombie explained that this had been very difficult to audit as part of the Counterweight study as most of the obese patients in that study were already receiving a statin. Consequently, the statin would have reduced their total cholesterol level. However, it is reasonable to assume that the fact that they were receiving a statin in the first place suggests that they must have had high cholesterol at one time.
- Food labelling has become a very difficult issue because there is no such thing as a good or bad food, but only good or bad diets. It is the combination of foodstuffs that we should be concerned about.
- How useful is the "traffic light system"? Dr Stoate pointed out that the average person takes four seconds to make a choice in a supermarket. Whilst the proposed traffic light system is far from perfect and somewhat arbitrary, it might make people stop and think about what they are putting into their trolleys. At the very least it might act as a useful visual signpost for people.
- A number of people disagreed with the suggestion that there are no bad foods. At the very least, there are bad criteria (such as high salt content, high fat, high sugar) and sufficient bad criteria might constitute a bad food. Other people agreed that there are such things as unhealthy foods in that, if you eat enough of them, they will kill you. But one Mars Bar will not kill anybody. The analogy was drawn with smoking; one cigarette won't kill you but lots of them will. The Food Standards Agency salt programme is a great initiative; the FSA should do the same for both fat and cholesterol. One problem is that science will not support these conclusions. It is vital that policy is evidence-based. Science will always support the view that food is essentially health-promoting, simply because food contains the nutrients we need to survive.
- Dr Stoate suggested that the watchwords are moderation and balance. In his experience as a GP, this is more likely to make a difference to peoples' lifestyle habits than talking in absolutes. We need to come up with suggestions that are not confusing to the public. For example, if one looks at the question of food labelling, it is not unusual to see salt listed as sodium, sodium chloride, sal, sel or brine. This is very confusing for consumers. What we need is something really simple such as "high salt! Avoid". This may be imperfect, but the simpler it is the more likely it is to be effective, a number of people went on to say that this would almost certainly require legislation; it is unlikely that the food companies will undertake these changes under voluntary codes of practice.
- Overall, the best evidence supports the view that we need population level interventions (control of obesity, lifestyle, public awareness and education) as well as targeted interventions (to address specific risk factors such as hypertension, smoking, lipids) if we are to reduce cholesterol levels, and the incidence of both CHD and stroke.

## Appendix

The following organisations were represented at the meeting:

- Abbott Laboratories Limited
- Biscuit, Cake, Chocolate and Confectionery Alliance
- British Heart Foundation
- British Nutrition Foundation
- Child Growth Foundation
- Cholesterol UK
- Diabetes UK
- Dairy Council
- Developing Patient Partnerships
- ERGO Communications
- Fitness Industry Association
- Foundations UK
- Fuel PR
- House of Commons members
- House of Lords
- Move4Health
- MRC Human Nutrition Research
- National Obesity Forum
- Portman Early Childhood Centre
- Sanofi-Aventis Limited
- Stroke Association
- TOAST
- Watford and Three Rivers PCT
- Weight Concern
- Weight Management Centre Limited
- University Hospital, Aintree