



[www.diogenes-eu.org](http://www.diogenes-eu.org)

**The Diogenes Project – Diet, Obesity & Genes**  
*Targeting the obesity problem: seeking new insights & routes to prevention*  
**Project Co-ordinator:**  
**Prof Wim Saris, Maastricht University**  
EC funded Sixth Framework Project Contract No: FP6-513946  
Priority 5: Food Quality & Safety

**Media Release**

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## **Protein intake is key to weight management after weight loss concludes the DIOGENES 8 European country dietary intervention study**

"Protein intake holds the key to effective weight maintenance after weight loss," stated Professor Arne Astrup of the University of Copenhagen and Co-ordinator of the EC-funded Diogenes diet and weight regain prevention study, today at the Diogenes Symposium (Tuesday 5<sup>th</sup> May 2009, The Netherlands).

Professor Astrup continued: "Taking all 8 centres together and the results from 548 adults, we are able to see that those subjects randomised to the higher protein diet after weight loss were able to maintain that weight loss most successfully. Some subjects randomised to the lower glycemic index (GI) diet also had some success with weight maintenance but it was less marked than those on the higher protein diet."

548 adult subjects completed the study with clinical measurements taken on three different occasions (i) before the weight loss period (when at least 8% of initial bodyweight had to be lost); (ii) end of weight loss and prior to dietary intervention period and (iii) end of 6 month intervention period.

The aim for the diets was a difference in protein intake of > 10 energy% and in GI of > 10 units. Two centres provided subjects with all foods for free using a shop system and 6 centres provided dietary instruction only to subjects. Subjects also undertook tests that have fed into other aspects of the Diogenes study.

Professor Astrup continued: "This study confirms the view that the diet chosen after weight loss does help with weight maintenance, contrary to other recently released studies which concluded that the diet makes no difference. We can have confidence in our findings and conclusions as each subject was closely monitored during the study and there was a much lower drop-out rate in the high protein group - possibly due to successful weight management during the study period."

All subjects on the higher protein diet whether they took part in the 'shop system' or 'instruction only' models had equal success.

Professor Astrup concluded: "For consumers, the good news is that successful outcomes for weight management with the higher protein diet have been achieved with relatively minor changes in diet composition. Most families would be able to make these dietary changes and help safeguard their health through better weight management."

**ENDS/**

**Further Media enquiries:** Minerva PRC Ltd [info@minervaprc.com](mailto:info@minervaprc.com)  
+44(0)1264 710428 +44(0)7887 714957 +44(0)7553 821525

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## Media Resources

**Monday 4<sup>th</sup> May 4-6pm CET, Prof Astrup, Prof Saris (Co-ordinator of Diogenes) and Marleen van Baak (Maastricht shop model co-ordinator) available 4-6pm CET for questions and interviews.**

Ask your questions or arrange an interview by emailing [info@minervaprc.com](mailto:info@minervaprc.com) or calling +44(0)1264 710428, +44(0)7887 714957 or +44(0)7553 821525  
More information is available on the Diogenes website at [www.diogenes-eu.org](http://www.diogenes-eu.org).

## Notes to Editors

1. Diogenes [www.diogenes-eu.org](http://www.diogenes-eu.org) managed by Professor Wim Saris (Maastricht) is an EC-funded pan-European Research Programme targeting the obesity problem from a dietary perspective: seeking new insights and new routes to prevention. It is an Integrated Project of the EU Sixth Framework Programme for Research and Technological Development (2005-2009). The name Diogenes is an acronym for the project and stands for 'Diet, Obesity and Genes'. Diogenes is integrating dietary, genetic, physiological, psychological/behavioural and food technology studies.

2. The 8 countries that took part in the dietary intervention study are Denmark, Greece (Crete), Spain, Czech Republic, Netherlands, Bulgaria, UK and Germany.

3. **Obesity and macronutrient composition of the diet** (the dietary intervention study) is Co-ordinated by Professor Arne Astrup, University of Copenhagen, Denmark. The macronutrient composition of the diet appears to play a role in determining the total energy intake. Proteins have been shown to produce a higher degree of satiety and to have a higher stimulating effect on energy expenditure compared with fat and carbohydrates. In addition carbohydrates with a low glycemic index (GI) have been suggested to have a higher satiating power than carbohydrates having a high GI. However, so far this evidence, which has led to some widely promoted dietary recommendations, has come only from studies limited in duration, subject numbers and types, and dietary variables.

The core of RTD1 was a 6 month dietary intervention study involving families (obese/overweight parents and their children) across 8 European centres. All adults completed an 8-week weight loss phase with a fixed low energy intake. Afterwards the families were randomised to one of 5 diet groups differing in carbohydrate GI and protein content (high protein/low GI, high protein/ high GI, low protein/high GI, low protein/low GI and a control diet based on healthy eating national guidelines). The aim of this controlled intervention study was to address the efficacy of these diets in preventing weight (re)gain. This intervention study generated data and materials for other studies within the Diogenes project.

3. **Caption:** Four adult male elephants weigh 8,500kg, the amount of weight lost by the 743 adult original participants in the Diogenes weight loss/weight regain study.



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