



**The PREVIEW Project:
Current status**
What has been done?

**Short Facts: Glycaemic
Index and Proteins**
What are the components of
the PREVIEW Diet?

Current status in PREVIEW

Recruitment and assessments

In the RCT the eight study centres started recruiting participants in June 2013. Baseline assessments have already been carried out. Before starting with the actual intervention, participants go through a weight-reduction phase for eight weeks. During this phase, they receive a low-caloric diet (LCD) of 800 to 1000 kcal per day. LCD products are supplied by the *Cambridge Weight Plan Ltd* free of charge. The aim of the LCD-phase is that participants lose at least 8% of their initial body weight.

Counsellors will guide them through this phase with group sessions every other week. More details on the group counselling will follow in one of the next newsletters.

At all sites, many participants have already entered the weight-reduction phase, and most of them have already finished it successfully.

Next steps

Many PREVIEW participants are entering the 36-month long intervention phase next. During this phase, participants will have to adhere to their particular diet (see information on the PREVIEW Diet on the next page). They will also have to follow prescribed physical activity volume and intensity.

Editorial

This second edition of the PREVIEW newsletter brings you good news and a brief description of the diets that are being compared in this large multinational diabetes prevention study. We are delighted to tell you that as of the end of April 2014, a total of 7,966 subjects have been pre-screened, 2,686 screened, and 1,173 subjects have been found eligible for the clinical trial. The average age of the eligible subjects to date is 52 years, divided into 817 females and 356 males. During the initial Low Calorie Diet phase (using *Cambridge Weight Plan* products), a total of 80% of the subjects have achieved the target weight loss, a success rate so far that is higher than the 75% hypothesized in the PREVIEW concept. Ethical approvals at eight sites and over 50 Standard Operating Procedures (SOPs), instructions and other documents had to be developed and finalised before recruiting started. This is a stunning effort on the part of doz-

ens of dedicated co-workers who go that 'extra mile'.

Jennie Brand-Miller, Sydney, Australia

Brief summary of the study goals and design

The PREVIEW project began in January 2013. The goal of the project is to identify the most successful combination of diet and physical activity to prevent type-2 diabetes in a large sample of pre-diabetic, overweight or obese people. The project involves 15 partners from eight European (Bulgaria, Denmark, Finland, Great Britain, Netherlands, Spain and Switzerland) and three overseas countries (Australia, Canada and New Zealand).

PREVIEW has two approaches: a randomized intervention trial and large-population studies (for detailed information see Newsletter No.1, 2013).



Short Facts: Glycaemic Index & Proteins

What is the Glycaemic Index (GI)?

Carbohydrate-containing foods such as bread, rice, pasta and fruit play an important role in human diets. During digestion, they are broken down to smaller molecules, particularly glucose, which circulates in the blood stream and provides fuel for working muscles, the brain and red blood cells. Excessively high blood glucose levels, however, are harmful, increasing the risk of oxidative stress and chronic disease. Unlike protein and fat, carbohydrates are the only components in foods that directly raise blood glucose levels. Scientists have developed a measure of a food's blood glucose-raising ability that allows us to compare foods, gram for gram of carbohydrate. This measure, the food's glycaemic index (or GI), is a number between 0 and 100, derived by testing a group of individuals using standardised methodology. Foods with a GI of 55 and below are classified as low GI foods (e.g. apples, pasta, legumes, basmati rice) and are digested and absorbed more slowly. High GI foods have a GI of 70 and above and produce a high blood glucose level when consumed (e.g. potatoes, wheat flakes, jasmine rice).

How is the GI implemented in PREVIEW?

There are two healthy dietary approaches being compared in PREVIEW. One diet incorporates foods with a low GI (GI < 55, e.g., legumes and pasta) while the other diet includes foods with a moderate-to-high GI (GI 55-69; e.g., wheat bread and potatoes).

What are proteins?

Proteins are the components of food that provide essential and non-essential amino acids. In other words, they are the building blocks of new tissues and new proteins such as hormones. In PREVIEW, one diet will constitute of 15% protein which corresponds with the amount of protein in a typical *western diet* (the western diet is characterized by high intakes of red meat, high-fat and sugary foods and refined grain). The other diet will have modestly more protein (25% of energy).

Why is the diet in PREVIEW based on GI and proteins?

Several studies have indicated that protein promotes greater satiety and weight loss, but higher protein diets can be more expensive and we do not know if they are safe and cost-effective in the longer term. Lower GI diets have been associated with greater body fat loss in some studies, but not others. The GI has also been criticised as 'too complex' for the average person to translate into practice. Therefore, in the PREVIEW study, we will compare two healthy diets with slightly different protein content and GI to

determine which is the *most efficient* level for reducing the risk of developing type-2 diabetes. Both diets will provide the recommended number of servings of protein foods, grains, fruits, vegetables and fats. Both will be low in total fat, saturated fat, and added sugar. We hypothesise that one diet will be more satiating and help to maintain weight loss over a long period of time. If this is realised, this diet will likely reduce the risk of developing type-2 diabetes.

Topic of the next newsletter

In the next newsletter, we will give you a brief update on the progress in the PREVIEW study. Furthermore, you will learn more about the role of *physical activity* and *sedentariness* for a healthy lifestyle and how physical activity is incorporated in the intervention of the PREVIEW study.

CONTACT:

EXPERT OF THE CONTENT OF THIS
NEWSLETTER:

Jennie Brand-Miller

Biochemistry, School of Molecular
Bioscience

Boden Institute of Obesity, Nutri-
tion, Exercise & Eating Disorders
G08 - Biochemistry Building

The University of Sydney
NSW 2006 Australia

Tel. +61 2 9351 3759

Fax: +61 2 9351 6022

e-mail: jen-

nie.brandmiller@sydney.edu.au



NEWSLETTER:

University of Stuttgart,
Department of Exercise and
Health Sciences
Wolfgang Schlicht
Nobelstraße 15
70569 Stuttgart, Germany
Tel: +49.711.685.63291
Fax: +49.711.685.63165
Purchase tax: DE 1477 94 196
e-mail: Ustutt_Preview@inspo.uni-
stuttgart.de

PROJECT COORDINATOR:

Anne Raben,
University of Copenhagen,
Department of Nutrition, Exercise
and Sports
e-mail: ara@nexs.ku.dk

PROJECT PARTNERS IN PREVIEW:

University of Copenhagen
(Anne Raben, DK, Coordinator)

University of Helsinki
(Mikael Fogelholm, FI)

Wageningen University
(Edith Feskens, NL)

Maastricht University
(Margriet Westerterp-Plantenga,
NL)

University of Nottingham
(Ian Macdonald, UK)

University of Navarra
(J. Alfredo Martinez, ES)

Medical University Sofia
(Svetoslav Handjiev, BG)

Swansea University
(Gareth Stratton, UK)

University of Stuttgart
(Wolfgang Schlicht, DE)

Meyers Madhus (Claus Meyer, DK)

NetUnion (Tony Lam, CH)

National Institute for Health And
Welfare (Jouko Sundvall, FI)

University of Sydney
(Jennie Brand-Miller, AU)

University of Auckland
(Sally Poppitt, NZ)

Laval University
(Angelo Tremblay, CA)

*The project described here re-
ceived funding from the European
Union Seventh Framework pro-
gramme (FP7/2007-2013) under
grant no. 312057.*