

Proper diet and exercise to limit diabetes epidemic

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The number of diabetics worldwide is exploding. In response, the largest study of its kind to date is set to investigate type-2 diabetes prevention through diet, exercise and lifestyle. Eight EU nations, along with New Zealand, Australia and Canada, will participate in an EU-funded project headed by University of Copenhagen researchers.

Twenty-one million Europeans are now treated for [diabetes](#). Globally, the number is estimated to be more than 371 million people. Furthermore, the number of people with diabetes has doubled in the past decade alone, with the ever-mounting and enormous strain upon global health care funding.

The alarming statistics have prompted the EU Commission to deploy funds towards a large research project called PREVIEW. The project seeks to turn the tide and thus ward off a potential explosion in future [health care costs](#) related to this [lifestyle](#) illness.

The project's aim is to find the most effective combination of diet, [exercise](#) and lifestyle related to type-2 [diabetes prevention](#).

"We would like to find out if our current dietary and exercise recommendations are optimal as relates to type-2 diabetes, or whether another lifestyle and regimen is more effective. It could save billions in health care costs for society if we are able to find a formula for how to best prevent type-2 diabetes. In part, we will accomplish this through a large scale, three-year clinical [research project](#) with a group of

[participants](#) from 8 nations, and also by studying data from a range of large demographic surveys," says the project's chief coordinator, Anne Raben, Professor at the University of Copenhagen's Department of Nutrition, Exercise and Sports.

The large clinical study will involve 2500 participants from Finland, the Netherlands, Great Britain, Spain, Bulgaria, Australia, New Zealand and Denmark. Partner universities within these countries have already begun their search for eligible trial participants.

Two diet types and two forms of exercise

Trial participants will be randomly divided into groups that each follows a specific lifestyle programme. Each programme will include one of two diet types, and one of two forms of exercise.

The two diet types represent one of the following: one diet is based on current dietary recommendations with high carbohydrate, lots of fiber and a moderate protein intake; and the other, a the other diet includes high protein intake and less, but more slowly absorbed carbohydrates.

"Both diet types are generally healthy, but can have differing effects upon health. In combination with exercise, we hope to be able to tailor an optimal lifestyle programme that can serve to prevent the occurrence of diabetes in society," says Professor Raben.

The two types of exercise include: one in which participants engage in moderately intense exercise for 150 minutes per week, for example a brisk walk; and another type that focuses on highly intensive exercise for 75 minutes a week, for example jogging.

"We already know that a diet which follows current dietary guidelines can prevent diabetes. What's unique about this project is that we are

testing the two diets against one another to find out if there might be a more effective alternative. For example, it has never been investigated whether a [diet](#) including more protein and fewer, but more slowly absorbed carbohydrates, is more effective at preventing diabetes. Besides, we will include two types of exercise as part of the investigations to determine if there is one that is more suitable. Finally we will also study the importance of stress and sleeping patterns." continues Professor Anne Raben.

Provided by University of Copenhagen

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