Fighting Fat: Volunteers Needed to Answer Absorbing Question

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Researchers at the University of Birmingham are looking for volunteers to take part in a study to determine how fat can be cleared more quickly from the bloodstream, the results of which could give a major boost to the health of those at risk of cardiovascular disease, the UK's biggest killer.

The team is looking closely at the level of exercise which must be taken prior to eating a meal in order to speed up the clearance of fat in the blood.

Dr Andy Blannin from the University's School of Sport and Exercise Sciences explains the background behind the study: "Unlike carbohydrate, which is cleared very rapidly, fat stays in the system for six to eight hours after eating. For those at risk of cardiovascular disease, it is during this time lapse after eating that the presence of fat in the body has its most detrimental affect, actually accelerating the disease.

"We want to find out if there is anything we can do to improve the rate at which fat disappears from the system, through monitoring the affect of moderate exercise in a specific time frame before eating."

Existing research has identified that exercise taken in a specific time period 12 to 16 hours before eating a meal can lower the fat level in the blood, however the benefit is less if the bout of exercise is taken either before or after this time period.

Dr Blannin continues: "We are keen to explore further the benefits that taking moderate exercise, such as brisk walking, can have during this golden time slot 12 to 16 hours before a meal."

The researchers are looking for non-smokers aged between 18 and 60 years, who are above ideal weight but otherwise in good health, to take part in the trial. Participants will be provided with two meals of differing fat contents, and required to perform 90 minutes of brisk walking on the treadmill the night before eating the meal. The participant will then be monitored closely following the meal, to see at exactly what rate the fat is being absorbed, and what affect the exercise is having on that rate.

Nick Hurren, co-researcher on the project says: "This study will give us a valuable insight into the affect that exercise, in a specified time period before a meal, has on the uptake of fat. We will then be able to give very practical advice to those people particularly at risk of developing cardiovascular disease and provide them with steps which should have a positive impact on their health."

Those interested in taking part in the study should contact either Dr Andy Blannin on 0121 414 7353 / email: a.k.blannin@bham.ac.uk, or Nick Hurren on 0121 414 8746 / email: NMH576@bham.ac.uk.

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Notes to Editors:

Facts and figures about cardiovascular disease:

Cardiovascular disease (CVD) is the collective term for diseases of the heart and circulatory system. CVD was the main cause of death in the UK in 2004 with 216,000 people dying as a result of CVD in 2004, representing 37% of all deaths during the year.

Coronary heart disease (CHD) constitutes the vast majority of CVD mortalities, with 49% of CVD deaths arising due to CHD. CHD itself was the single most common cause of death in 2004, with one in five men and one in six women dying from the disease (105,000 CHD deaths in 2004).

Other relevant information:

While the UK's CVD death rate has been falling since the 1970's (58% of the decrease due to reduction of major risk factors; principally smoking), it still remains the highest in Western Europe outside Ireland and Finland.

As the prevalence of obesity and type-2-diabetes continues to rise in the UK, it is predicted that CVD mortality due to physical inactivity will also increase; therefore overweight, sedentary non-smokers could become a major target group

After cigarette smoking, physical inactivity is one of the greatest modifiable risk factors for CVD; performing regular cardiovascular exercise combined with adopting a healthy diet has been shown to reduce risk of developing CVD.

Further information:

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