Study to assess if genes predispose salt to act as a blood pressure 'trigger'

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(PhysOrg.com) -- Researchers from the University of Glasgow are launching a study to find the link between genes and salt.

Professor John Connell is leading a team of scientists who want to assess if salt acts as a trigger for high blood pressure.

And he hopes that a greater understanding of the role that salt plays in our health, will lead to better and earlier treatments for cardiovascular disease.

Professor Connell said: “High blood pressure, also known as hypertension, is a common condition in the west of Scotland and contributes to the very high incidence of heart attacks and strokes in our population.

“It is likely that an interaction of genes and environment, for example diet, lead to high blood pressure. Today’s modern diet is relatively high in salt; some convenience or fast food contains between 100 and 200 per cent of an adult’s recommended daily amount.

“We would like to find out if some genes predispose to hypertension especially in the context of a diet that is high in salt.”

The researchers will look at the way salt interacts with our biology to discover if some genes, which are predisposed to hypertension, are kick-started by a high-salt diet.
The scientific team are looking for normal, healthy volunteers aged between 18 and 75 to take part in the study. Before the research begins, a blood test will be taken to examine some of the genes that might regulate blood pressure.

Professor Connell added: “We will ask that people stick to a low salt diet for four days of week one and four days of week two.

“During one of these weeks, we will ask volunteers to take salt supplements to ensure they have a high salt intake. We will ask them to visit our clinical research facility based in the BHF Glasgow Cardiovascular Research Centre at the University twice each week where we will give them a drip containing short acting hormones that are normally produced by the body to regulate salt and blood pressure.

“We will take blood tests before and after the drip and monitor blood pressure during the procedure.

“The tests are perfectly safe and each visit will take around 90 minutes and volunteers will be compensated for their time.

“In addition, the tests will give a general picture of the person’s health and advice can be given from our medical staff on the best ways to improve your overall well-being.

“Also, the volunteers will be helping the health of future generations. A greater understanding of the role salt plays in our diet is vital to protecting our children and our children’s children.”

Provided by University of Glasgow