

# Presentation of Results of the TREAT CASP Study

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UCL - Sir Ambrose Fleming Lecture Theatre  
Roberts Building (Malet Place entrance) Malet Place, London, WC1E 7JE  
18:15pm - 19:45pm

P R O G R A M M E	Welcome and Introductions	Professor Bryan Williams	18:15
	Importance of high blood pressure		
	Consequences of high blood pressure		
	Why we did this study		
	What did we find?		
	Implications of our findings Panel discussion	Dr Peter Lacy Ewan McFarlane Dawid Jedrzejewski	18:45
	Reception – Drinks and Canapés	Foyer – Roberts Building	19:00
	Opportunity to check your Q-RISK		
	Posters		

Please be informed that a photographer will be documenting this event. If you do not want to appear in photos or video please take a seat in the designated area.

We thank you again for your part in helping us with this study and hope you have found this evening to be interesting and informative.

## TREAT CASP Study Summary

High blood pressure (hypertension) increases the risk of heart disease, stroke and premature death. It is uncertain whether younger people with mild hypertension would benefit from drug treatment to lower their blood pressure (BP). An accurate way to check whether hypertension might be causing harm, is to measure the thickness of the wall of the heart using magnetic resonance imaging (MRI). We developed a way of measuring pressure close to the heart using mathematical computation of the pulse at the wrist, which we call central aortic systolic pressure (CASP). We speculated that measurement of CASP would provide an accurate way of identifying patients with high pressure close to the heart, who have early evidence of strain on the heart. We proposed that in younger people with high CASP the effects of pressure on the heart could be reversed with treatment to lower their BP.

Younger men (< 55 years) with mild hypertension and high pressure close to the heart (CASP) took part in our study. MRI of their hearts showed that those with a high CASP level had thicker heart muscle compared to those with lower CASP. This thickening is evidence that the higher pressure is causing strain and early damage to the heart. To see if this could be reversed, we randomly selected half of the patients to take a tablet to lower their BP, the other half of the patients took no treatment. After 12-months follow-up, thickening of the heart was significantly reduced in those who were treated compared to those who were not.

Although CASP did not prove to be superior to usual BP measurement in predicting the thickness of the heart, this study provides evidence that in younger people with mild hypertension, the pressure on the heart causes damage that is reversible with BP-lowering treatment.

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