

**Public release date: 30-May-2009**

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## **Obesity and diabetes double risk of HF -- patients with both conditions 'very difficult' to treat**

*ESC Press Release Heart Failure Congress 2009*

The twin epidemics of obesity and type 2 diabetes will continue to fuel an explosion in heart failure, already the world's most prevalent chronic cardiovascular disease, according to John McMurray, professor of cardiology at the Western Infirmary, Glasgow, and President of the Heart Failure Association. He reported that around one-third of patients with heart failure have evidence of diabetes, and for them the outlook is very serious. For doctors, he added, effective treatment is "very difficult".

Obesity, like diabetes, is increasing in prevalence. The latest report from Euroaspire, Europe's largest survey of cardiovascular risk factors in coronary patients, found that the prevalence of obesity had increased from 25 per cent in 1997 to 38 per cent in just ten years – and this in people who had already had at least one heart attack.

Now, a session at Heart Failure 2009 emphasises that obesity is not just associated with an increased risk of heart attack, but also – and especially - with an increased risk of heart failure.<sup>1,2</sup> "Obesity is at least as great a risk factor for heart failure as it is for heart attack or stroke," says Professor McMurray. "Obesity more than doubles the risk."

The pathways by which obesity plays such a role in heart failure are not yet fully understood, but have been shown to have an indirect effect via hypertension, or heart attack, or diabetes – and a direct effect on the heart muscle itself. "We know that the underlying changes in the structure and function of the heart may be different in obese and non-obese patients with heart failure," says Professor McMurray. An even more "intriguing" suggestion, he added, is that adipose cells might act as an endocrine tissue, secreting substances which may have a harmful effect on heart tissue and blood vessels.

The relationship between diabetes and heart failure is also a subject of investigation, with the risk of heart failure doubled in diabetics. Heart failure patients with diabetes also have worse symptoms, a higher risk of hospitalisation and a greater risk of death than those without diabetes – suggesting that the underlying pathophysiology of heart failure may be different in diabetics and non-diabetics. Professor McMurray also notes an "intersection" of the two conditions by which those with diabetes have a higher risk of heart failure, and those with heart failure have a higher risk of diabetes. "But whichever is the causative factor," he adds, "it's very bad news for those with both conditions."

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NOTES :

1. Heart failure, obesity and diabetes. 31 May, 11.00-12.30.

2. Heart Failure Congress 2009 is organised by the European Society of Cardiology and Heart Failure Association of the ESC, and takes place from 30 May to 2 June at the Palais Acropolis, Nice, France.

\* Information on the scientific programme for Heart Failure Congress 2009 is available at <http://spo.escardio.org/Welcome.aspx?eevtid=31>

\* Background information on heart failure is available at <http://www.heartfailurematters.org>.

\* More information on Heart Failure Congress 2009 and on the press releases is available from the ESC press office at [press@escardio.org](mailto:press@escardio.org) OR on site at +33 (0)6 22 41 84 92.

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