Individuals who suffer from migraines with aura (temporary visual or sensory disturbances before or during a migraine headache) are at a higher risk of dying from heart disease or stroke, according to research published today in the British Medical Journal.

This is the first large population-based study showing a link between migraine and overall mortality as well as specific mortality.

The findings support increasing evidence that migraine, particularly with aura, is associated with death from heart disease. The researchers stress, however, that the individual risk for a migraine sufferer remains low.

The authors, led by Larus Gudmundsson from the University of Iceland, assessed the impact of mid-life migraine episodes in 18,725 men and women born between 1907 and 1935 who took part in the Reykjavik Study (set up in 1967 by the Icelandic Heart Association to study heart disease in Iceland). In total the research team explored over 470,000 person-years of data with a follow-up of 26 years.

Gudmundsson and colleagues used questionnaires to assess migraine with and without aura.

The results concluded that men and women who suffered from migraine with aura were at an increased risk of dying from all causes, as well as heart disease and stroke, while those with migraine without aura were not at increased risk.

Furthermore, the study says that women who experience migraine with aura are also at a higher risk of dying from causes other than cardiovascular disease or cancer. "However, it remains to be seen which diseases drive the risk increase seen for women with migraine," say the researchers.

The researchers conclude that the individual risk faced by migraine sufferers is low, and efforts to reduce heart disease deaths should focus on conventional risk factors such as high blood pressure, smoking and high cholesterol, regardless of migraine status.

They call for more research on the association between migraine and death from cardiovascular disease and all other causes. "Finally, studies are needed to determine if reducing the frequency of attacks with migraine preventive treatment might reduce the risk of cardiovascular disease," they add.

A second paper, also published on bmj.com today, finds that female sufferers of migraines with aura are also at a higher risk of haemorrhagic stroke (where bleeding occurs in the brain). These account for around 20% of all strokes. However, lead author, Dr Tobias Kurth, Director of Research at INSERM, argues that the risk remains low and further research is required to confirm these findings.

Dr Klaus Berger from the University of Muenster in Germany has written an editorial to accompany the first study and questions whether doctors should inform patients about the risks associated with migraine with aura. Berger argues that "for many people the information will cause an unwarranted amount of anxiety, although others may use the opportunity to modify their lifestyle and risk factors accordingly" and that "clinicians must carefully weigh the decision whether or not to discuss the risks related to this condition."