

**PRESS RELEASE**

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## **Could work pressure be causing the greater increase in non-traditional cardiovascular risk factors in women compared to men?**

**Work stress, sleep disorders, and fatigue, regarded as non-traditional risk factors for heart attack and stroke, are rising more steeply amongst women than men, according to a new study presented today at the European Stroke Organisation (ESO) Conference<sup>1</sup>.**

Researchers compared data from 22,000 men and women in the Swiss Health Survey from 2007, 2012, and 2017, and found an “alarming” rise in the number of women reporting the non-traditional risk factors for cardiovascular disease. The trend coincided with an increase in the number of women working full-time from 38% in 2007 to 44% in 2017.

Overall, in both sexes, the number reporting stress at work rose from 59% in 2012 to 66% in 2017, and those reporting feeling tired and fatigued increased from 23% to 29% (to 33% in women and 26% in men). Over the same period, the number reporting sleep disorders went up from 24% to 29%, with severe sleep disorders also rising more sharply in women (8%) than in men (5%).

However, the research also found the traditional risk factors for developing cardiovascular disease had remained stable in the same time period, with 27% suffering from hypertension, 18% with raised cholesterol and 5% with diabetes. Obesity increased to 11% and smoking decreased from approximately 10.5 to 9.5 cigarettes per day, but both were more prevalent in men.

Study authors Dr Martin Hänsel, Neurologist at the University Hospital Zurich and Dr Susanne Wegener, Professor of Neurology at the University of Zurich, Switzerland commented, “Our study found men were more likely to smoke and be obese than women, but females reported a bigger increase in the non-traditional risk factors for heart attacks and strokes, such as work stress, sleep disorders, and feeling tired and fatigued.”

“This increase coincides with the number of women working full time. Juggling work and domestic responsibilities or other socio-cultural aspects may be a factor, as well as specific health demands of women that may not be accounted for in our daily ‘busy’ lives.”

“We found an overall increase in non-traditional risk factors in both sexes, but these were more pronounced in female participants, while most traditional cardiovascular risk factors remained stable.

These results underscore the fact that sex differences exist for non-traditional CVD (cardiovascular disease) risk factors with an alarming trend towards a particular increase in women.”

Dr Wegener said that diabetes, arterial hypertension, raised cholesterol, smoking, obesity and physical inactivity are recognised modifiable risk factors for cardiovascular disease, but recently it has been noted that non-traditional risk factors such as work pressures and sleep problems can significantly add to cardiovascular risk.

“The data shows that there are a wide range of risk factors for cardiovascular disease reported and these extend beyond the medical ones officially recognised to societal pressures and will help better inform prevention strategies for heart attacks and strokes”, explained Dr Wegener.

“Traditionally men have been perceived to be more affected by heart attacks and strokes than women, but in some countries, women have overtaken men. There is a gender gap and further research is needed to find out why,” adds Dr Wegener.

## **ENDS**

### **Notes to Editors:**

A reference to the European Stroke Organisation (ESO) Conference must be included in any coverage or articles associated with this study and research.

For more information or to arrange an expert interview, please contact Luke Paskins or Sean Deans on [luke.paskins@emotiveagency.com](mailto:luke.paskins@emotiveagency.com), [sean.deans@emotiveagency.com](mailto:sean.deans@emotiveagency.com) or [press@eso-stroke.org](mailto:press@eso-stroke.org), or call +44 (0) 208 154 6396.

### **About the Study Authors:**

Dr Martin Hänsel is a Neurologist at the University Hospital Zurich, Switzerland.

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### **About ESO:**

The European Stroke Organisation (ESO) is a pan-European society of stroke researchers and physicians, national and regional stroke societies, and lay organisations, founded in December 2007. The ESO is an NGO comprised of individual and organisational members. The aim of the ESO is to reduce the burden of stroke by changing the way that stroke is viewed and treated. This can only be achieved by professional

and public education and making institutional changes. ESO serves as the voice of stroke in Europe, harmonising stroke management across the whole of Europe and taking action to reduce the burden.

#### **Four Facts on Stroke:**

1. In 2017, there were 1.12 million first strokes in the EU, 9.53 prevalent stroke cases and 460,000 stroke-related deaths<sup>2</sup>
2. In 2017, there were 7.06 million disability adjusted years lost due to stroke in the EU<sup>2</sup>
3. By 2047 it has been estimated there will be an additional 40,000 strokes per year in the EU (a rise of 3%)<sup>2</sup>
4. 80% of premature heart disease and stroke is preventable<sup>3</sup>

#### **References:**

1. *10-year trends in cardiovascular risk factors in Switzerland: non-traditional risk factors are on the rise in women more than in men*, presented at the European Stroke Organisation Conference, 1 September 2021
2. <https://www.ahajournals.org/doi/10.1161/STROKEAHA.120.029606>
3. <https://www.euro.who.int/en/health-topics/noncommunicable-diseases/cardiovascular-diseases/data-and-statistics>