

# Study suggests women find it more difficult to quit smoking than men

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**Sophia Antipolis, France – 25 Aug 2021:** A study of more than 35,000 smokers has found that women smoke fewer cigarettes than men but are less likely to quit. The research is presented at ESC Congress 2021.<sup>1</sup>

Study author Ms. Ingrid Allagbe, a PhD student at the University of Burgundy, Dijon, France said: “In our study, women who used smoking cessation services had higher rates of overweight or obesity, depression, and anxiety compared to men and kicked the habit less often. Our findings highlight the need to provide smoking cessation interventions tailored to the needs of women.”

This study compared characteristics and abstinence rates of men and women visiting smoking cessation services between 2001 and 2018 in France. Data were obtained from the nationwide database CDT-net. The study enrolled smokers aged 18 and older with at least one additional risk factor for cardiovascular disease: overweight/obese (body mass index [BMI] 25 kg/m<sup>2</sup> or above); high cholesterol; diabetes; high blood pressure; history of stroke, heart attack or angina.

A nicotine dependence scale was used to classify participants as having mild, moderate, or severe dependence.<sup>2</sup> Smoking abstinence (at least 28 consecutive days) was self-reported and confirmed by measurement of exhaled carbon monoxide less than 10 parts per million (ppm).

Participants provided information on their age, education level, other conditions including diabetes and respiratory illnesses, and number of cigarettes smoked each day. Height and weight were measured. Participants were classified as having anxiety and depression symptoms or not according to their medical history, use of anti-anxiety medication or antidepressants, and the Hospital Anxiety and Depression Scale (HADS).

A total of 37,949 smokers were included in the study, of whom 16,492 (43.5%) were women. The average age of women in the study was 48 years, while the average age of men was 51 years ( $p < 0.001$ ). More women (55%) reported a bachelor's degree level of education or higher compared to men (45%;  $p < 0.001$ ).

Both men and women had a high burden of cardiovascular risk factors. High cholesterol was more common in men (33%) compared to women (30%;  $p < 0.001$ ), as was high blood pressure (26% versus 23%, respectively;  $p < 0.001$ ). Diabetes was also more common in men (13%) compared to women (10%;  $p < 0.001$ ).

A greater proportion of women (27%) were overweight or obese compared to men (20%;  $p < 0.001$ ). Women (37.5%) were more likely to have symptoms of anxiety or depression than men (26.5%;  $p < 0.001$ ). Chronic obstructive pulmonary disease was more common in women (24%) compared to men (21%;  $p < 0.001$ ) as was asthma (16% versus 9%, respectively;  $p < 0.001$ ).

The average number of cigarettes smoked daily was 23 in women and 27 in men ( $p < 0.001$ ). Some 56% of women had a severe nicotine dependence compared to 60% of men ( $p < 0.001$ ). Abstinence was less common in women (52%) than men (55%;  $p < 0.001$ ).

Ms. Allagbe said: "The findings suggest that despite smoking fewer cigarettes and being less nicotine dependent than men, women find it more difficult to quit. Possible contributors could be the higher prevalence of anxiety, depression and overweight or obesity among women. It has previously been reported that women may face different barriers to smoking cessation related to fear of weight gain, sex hormones, and mood."<sup>3</sup>

She concluded: "The results indicate that comprehensive smoking cessation programmes are needed for women that offer a multidisciplinary approach involving a psychologist, dietitian, and physical activity specialist."

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## Notes to editor

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**Disclosures:** The authors declare no conflicts of interest in relation to this study.

## **References and notes**

<sup>1</sup>Abstract title: Specific risk factors profile and abstinence rate of female smokers at high cardiovascular risk from the nationwide smoking cessation services cohort CDT-net.

<sup>2</sup>Heatherton TF, Kozlowski LT, Frecker RC, *et al.* Measuring the heaviness of smoking: using self-reported time to the first cigarette of the day and number of cigarettes smoked per day. *Br J Addict.* 1989;84:791–799.

<sup>3</sup>Allen AM, Oncken C, Hatsukami D. Women and smoking: the effect of gender on the epidemiology, health effects, and cessation of smoking. *Curr Addict Rep.* 2014;1:53–60.

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