

Health professionals and pregnant women are cautious about recommending or using vaping during pregnancy, due to lack of detailed safety information. The main aim of the study was to measure toxins (harmful chemicals) in the urine of pregnant women who used to smoke and now just vape compared with women who just smoke or women who have never vaped or smoked.

We invited pregnant women to take part when they attended a routine antenatal appointment. If they agreed to participate, they were asked to provide a urine sample and to complete a questionnaire (about themselves and use of nicotine/tobacco products). We then tested their urine in a laboratory and assessed the levels of toxins.

We found that among former smokers who were vaping regularly, levels of most toxins were far lower than for individuals who were just smoking and were similar to those of women who had never smoked or vaped.

This study suggests that, among pregnancy women, vaping alone is likely to result in lower harmful chemicals than among smokers, and similar levels of chemicals to those who have never used either product. There may be exposure to other vaping chemicals that were not explored in this study. Studies are needed to assess the effects of vaping during pregnancy on pregnancy and birth outcomes and on infants.