

# Research indicates some people may be physically unable to use police breathalyzers

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Some people may be physically unable to use the current evidential

breath analysis machines, relied upon by police to gather proof of driving under the influence of alcohol or drugs, [new research](#) published in the *Medico-Legal Journal* from the University of Sheffield indicates.

The new study challenges the norm that anyone failing to provide a sample of breath at a police station is being deliberately obstructive, questioning the fairness of "failure to provide" charges.

Under the 1988 Road Traffic Act, anyone unable to complete a breathalyzer test at a police station is automatically charged with Failure to Provide, which can have serious consequences for the offender including driving disqualifications, a maximum possible sentence of six months' imprisonment and an unlimited fine.

Analysis of over 280,000 spirometry data entries in the UK Biobank (a measurement of how much air that a person can move in and out of their lungs), showed a significant minority of people, including [older people](#), women, those who are shorter in height or smokers over the age of 40, may simply be physically unable to provide a sample.

As many as one in 38 men and one in 26 women of small stature are physiologically incapable of providing an evidential breath sample. The picture worsens with age and being a daily smoker doubles the risk.

Although there is still a lot of variation in lung capacity between individuals even at the same height—generally the bigger you are, the bigger your lungs tend to be. Because on average women are smaller than men, a higher proportion of them are small enough not to have the necessary physical capacity. In terms of age, the problem is the effects of aging on the lungs, chest and diaphragm such as a loss of elasticity of tissue.

Up until now, research to validate obtaining breath samples has

investigated fewer than 300 individuals, so this new study highlights the severe lack of data on which use of the evidential breath analysis machines is based.

Lead researcher Galen Ives, from the University of Sheffield's Information School, said, "Although there are procedures currently in place to gather alternative samples in cases where someone using an evidential breath test machine fails to provide a valid sample, the current belief by the authorities is that unless they have a respiratory illness, everyone should be able to use them.

"We now know this to be false, therefore it's vitally important that police forces are alerted to the fact that certain groups of people are more likely to be unable to use these machines, and they therefore should adopt a more equitable application of the law for individuals who aren't obviously obstructing the course of the investigation, and take an alternative sample, such as a blood or urine test."

Currently, any defense against a Failure to Provide charge requires a documented history of a condition such as asthma or [chronic obstructive pulmonary disease](#); or [mental health condition](#) such as extreme anxiety, to provide a valid reason for the test not being completed at the time of the request.

Chronic anxiety can lead to a person normally using their chest rather than their diaphragm to breathe. Galen states that lack of available research data in this area means the current evidence is also unable to demonstrate how this could affect a person's ability to complete an evidential breath test, even if they have the required respiratory capacity.

There are approximately 4,000 convictions for Failure to Provide in the U.K. each year, and the study suggests that not applying the law more flexibly and readily allowing suspects to give alternative samples, could

be contributing to wrong outcomes in the justice system.

Examples include a person who may not have been over the legal blood alcohol limit but is convicted due to not being able to provide a sample, or individuals who should have actually received a penalty, but are acquitted when a different specimen would have proved their guilt.

Hester Russell, Partner and Head of Criminal Defense at GWBHarthills Solicitors has represented defendants in Failure to Provide cases. She said, "I have often felt concerned about the assumption that evidential breath machines are infallible and that they should—as a rule—override the legitimate concerns of members of the public.

"I have represented a significant number of people who have not been in a position to provide breath, but contend that they really have done their best and have more than a handful of cases every year where, with the help of experts, we have obtained acquittals; but it is a hard fought battle and unless the Defendant is eligible for Legal Aid it is often one that people can simply not afford to fight."

Hester said that such confidence is placed in the machinery, that the very clear response of most tribunals is that a Defendant must be wrong, or "trying it on" if they have simply been unable to provide a specimen; especially if they do not have any known medical issues.

She adds, "This piece of crucial research should remind those of us within the Criminal Justice System to exercise caution before advising defendants to plead guilty because a machine tells them to."

Galen Ives added, "The results in this study imply that the percentage of people incapable of using an evidential breathalyzer is likely to be far higher than suggested by the existing, small-scale studies which supposedly validate their use. More research, and action by the Police is

needed to ensure that the law is applied to everyone as equitably as possible."

**More information:** Galen Ives et al, Can all healthy adults use the current evidential breath alcohol analysers? An investigation using a large spirometry database, *Medico-Legal Journal* (2023). [DOI: 10.1177/00258172231178419](https://doi.org/10.1177/00258172231178419)

Provided by University of Sheffield

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