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Clinical Study shows that switching to glo reduces smokers' exposure to harmful chemicals

- glo is a tobacco heating product designed to heat rather than burn tobacco.
- Tests show that glo vapour has around 90-95% less harmful chemicals than smoke*
- Clinical studies by scientists at British American Tobacco indicate that when smokers switched completely from conventional cigarettes to glo, their exposure to many harmful chemicals found in cigarette smoke was significantly reduced**.
- In some cases, the reductions were the same as those in smokers who quit altogether.
- These data suggest the potential for glo to be a reduced-risk product***.

SOUTHAMPTON, UK; and WARSAW, POLAND, 15 JUNE 2018: A study by scientists at British American Tobacco has shown that when smokers switch completely to glo, their exposure to harmful smoke chemicals is substantially reduced, in some cases to levels comparable to those seen in smokers who quit smoking completely**.

It is widely accepted that most of the harm associated with tobacco is caused by inhaling harmful chemicals in the smoke produced when it is burned. That is why at British American Tobacco, we are dedicated to the development and sale of a range of potentially reduced-risk products that provide the enjoyment of smoking without burning tobacco. This portfolio includes our tobacco heating product, glo, which previous studies have shown to contain around 90-95% less harmful chemicals than cigarette smoke*.

“The results of this clinical study, which involved 180 people, show that the reduction in the level of harmful chemicals in glo vapour translates to a reduction in exposure when smokers switch to using glo,” according to Dr James Murphy, Head of Reduced Risk Substantiation at British American Tobacco. These results are very encouraging,” explains Murphy. “The next step will be to determine whether this reduction in exposure translates to a reduction in biological effect, and in turn a reduction in adverse health effects for those smokers who switch completely to glo.

The results are published in the journal [Nicotine & Tobacco Research](#) and are presented today at the Global Forum on Nicotine in Warsaw, Poland.

About this Clinical Study

This study was conducted in Japan over a seven-day period in a clinic. One hundred and eighty people participated in the study, all of whom were smokers for at least three years prior to enrolment.

For the first two days, study participants continued to smoke as normal and their urine was collected to measure selected biomarkers of exposure. Blood and breath were also collected for analysis.

Over the next five to six days, participants were randomly allocated to either continue smoking, switch to using glo or quit smoking. Urine, blood and breath samples were again collected for analysis.

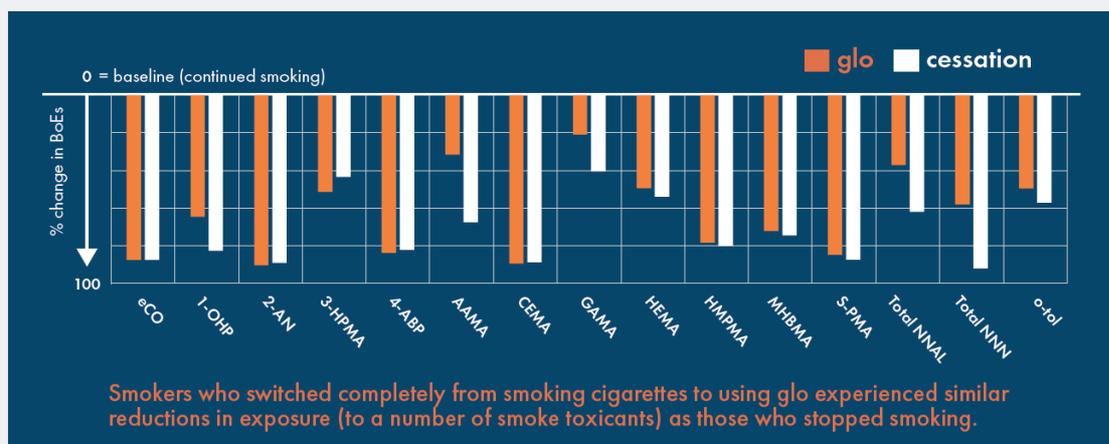
Exposure to harmful chemicals in smoke was determined by measuring the levels of certain chemicals in the urine. These could be the chemicals themselves or their metabolites – which is what the body breaks it down into - called biomarkers of exposure. Chemicals measured included some of those identified by the World Health Organisation as being of concern in cigarette smoke.

The results show that the concentration of certain chemicals in the urine was reduced in smokers who switched to glo. In some cases, these reductions were the same as those in smokers who quit. This suggests that smokers who switched to glo were exposed to less harmful chemicals. In some cases, their exposure was the same as smokers who quit altogether***.

British American Tobacco's Commitment to NGPs

British American Tobacco have invested more than US\$2.5 billion over the last six years in developing and commercialising a world-leading portfolio of products in the Next Generation Products (NGPs) category. British American Tobacco currently has NGPs in 16 markets with plans to double the amount of markets we're in by the end of 2018. BAT has a bold ambition to realise revenue of more than £5bn from NGPs by 2022.

ENDS



Graph shows median percentage reductions in biomarkers of exposure in participants who switched from smoking cigarettes to using the non-menthol glo THP, or who quit tobacco use. Reductions calculated based on the level of biomarkers for each toxicant on Day 5 post-switch or post-quit, versus baseline.

NOTES to Editors

About British American Tobacco: British American Tobacco is a global tobacco and next generation product company with brands sold in more than 200 markets. It employs more than 50,000 people worldwide and has over 200 brands in its portfolio, with its cigarettes chosen by one in eight of the world's one billion smokers. Leading global brands include Dunhill, Kent, Pall Mall and Lucky Strike.

About Next Generation Products (NGP): Next Generation Products is part of the British American Tobacco Group and is focused on developing and delivering high-quality alternative nicotine and tobacco products for adult smokers in the key areas of Vapour and Tobacco Heating Products. For more information see www.goVype.com and www.bat-science.com.

About Tobacco Harm Reduction: The only way to avoid the risks associated with tobacco use is not to consume tobacco at all, and the best way to reduce the risks is to stop using tobacco. However, the concept of harm reduction is increasingly being considered in relation to tobacco use. Harm reduction is about finding practical ways to minimise the health impact of an inherently risky activity or behaviour, without seeking to stop it entirely. It is a key element of BAT's business strategy and is being discussed by some regulators. We think it's important to work towards producing consumer-acceptable, potentially reduced risk products. We believe that tobacco regulatory policies should include harm reduction approaches for the millions of adults globally who will continue to consume tobacco products.

The Public Health Impact of e-cigarettes and other Next-Generation Products: Many in the public health community believe e-cigarettes offer great potential for reducing the public health impact of smoking. Public Health England, an executive body of the UK Department of Health, recently published a report saying that the current expert estimate is that using e-cigarettes is around 95% safer than smoking cigarettes. The Royal College of Physicians have said that the public can be reassured that e-cigarettes are much safer than smoking and that they should be widely promoted as an alternative to cigarettes.

* comparison of smoke from a 3R4F reference cigarette (approx. 9 mg tar) and vapour from heated tobacco in glo, in terms of the 9 harmful components the World Health Organisation recommends reducing in cigarette smoke. This quality does not necessarily mean this product is less harmful than other tobacco products

** Harmful chemicals are defined by the following list: 1,3-butadiene, benzene, acetaldehyde, acrolein, B[a]P, CO, 2-aminonaphthalene, acrylamide, acrylonitrile, ethylene oxide

*** This study and the resulting data do not necessarily mean this product is less harmful than other tobacco products.



NEXT
GENERATION
PRODUCTS