

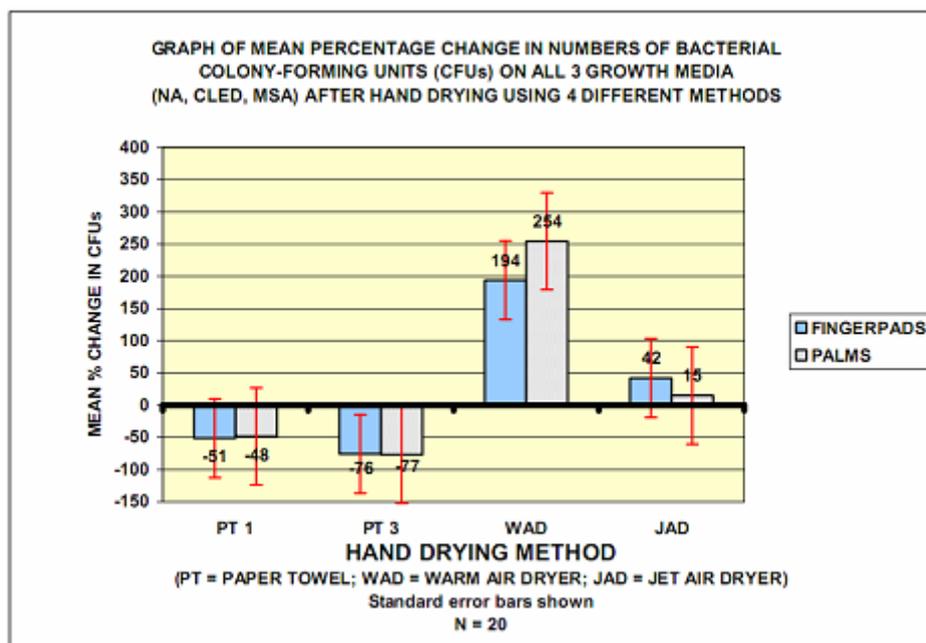
## Are Air Dryers Hygienic?

Westminster University Study shows that electric hand dryers in public toilets increase bacteria transmission risk.

The electric hand dryers in public toilets can dramatically increase the number of bacteria on people's hands after washing them and increase the likelihood of transmission of bacteria, including potentially pathogenic types, via the fingerpads and palms of the hand and their air flows.

### Comparison 1: bacteria on hands

Scientists at the University of Westminster came to these findings during a study in which they compared the numbers of bacteria on subjects' hands before and after they had washed them and then dried them in a public washroom using paper towels, a traditional warm air dryer or a jet air dryer.



The researchers discovered that:

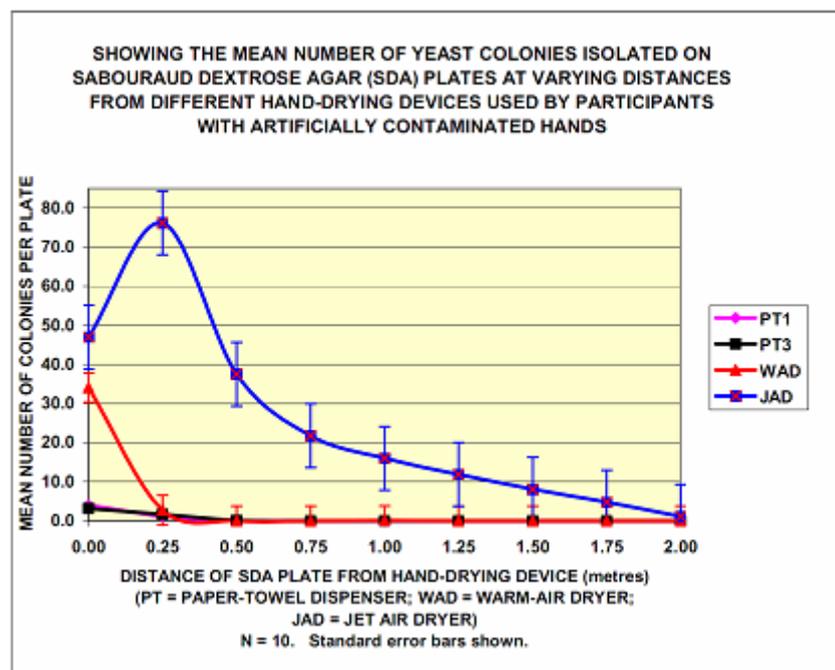
- after washing and drying hands with the warm air dryer, the total number of bacteria was found to increase on average on the finger pads by 194% and on the palms by 254%;
- washing and drying hands with the jet air dryer resulted in an increase on average of the total number of bacteria on the finger pads by 42% and on the palms by 15%;
- after washing and drying hands with a paper towel, the total number of bacteria was reduced on the finger pads between 51% and 76%, and on the palms between 48% and 77%.

This means that whatever type of paper is used, paper towels insure a substantial bacteria number REDUCTION, while all air dryers INCREASE the number of bacteria on the hands.

## Comparison 2: contamination due to bacteria transmission

In their research of possible cross contamination due to bacteria transmission to other washroom users and the washroom environment they found that:

- the jet air dryer was capable of blowing micro-organisms from the hands and the unit and potentially contaminating other washroom users and the washroom environment up to 2 metres away;
- the warm air hand dryer spread micro-organisms up to 0.25 metres from the dryer;
- the paper towels showed no significant spread of micro-organisms.



This is a clear indication of the fact that paper towels are the best guarantee for avoiding the spreading of germ to other users and to the environment.

## **Conclusion**

A recent survey in major European markets (Germany, France, UK and Sweden) demonstrated that the facilities of public restrooms are of high importance for consumers, especially when it comes to the device for drying hands.

The study confirmed that no less than 63% of users, when offered the choice, will definitely put tissue hand towels first.

[Click here for the User Preference Survey.](#)

However, some mistaken view on the most hygienic method for washing and drying hands still exist: in this user survey it was found that 58% of respondents in the UK thought that electric hand dryers were more hygienic than both textile-based towels and paper towels.

The University of Westminster research results however suggest that people could be putting themselves at increased risk of illness by using electric hand dryers.

Keith Redway, Senior Academic in the Department of Biomedical Sciences at the University of Westminster, concludes: "The results of all parts of this study suggest that the use of warm air dryers and jet air dryers should be carefully considered in locations where hygiene is of paramount importance, such as hospitals, clinics, schools, nurseries, care homes, kitchens and other food preparation areas. In addition, paper hand towel use is beneficial for improved hygiene in any facilities open to the public, such as factories, offices, bars and restaurants. These findings suggest that if either a warm air dryer or jet air dryer is the only drying method available, in terms of bacterial numbers, a washroom user could be better off not washing and drying their hands at all."

[Click here for a Summary of the Scientific Study.](#)

[Click here for the Full text of the Scientific Study.](#)

*'A comparative study of three different hand drying methods: paper towel, warm air dryer, Dyson Airblade dryer' was conducted by Keith Redway and Shameem Fawdar of the School of Biosciences, University of Westminster, London towards the end of 2008.*

*The independent research was commissioned by the European Tissue Symposium (ETS), a trade body representing 90% of Europe's tissue industry.*

**For more information or comments:**

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