

New technology for hand drying

Over the last few years, many manufacturers have been striving to develop more effective and user-friendly hand wash products. Most of the focus has been on better soap or alcohol gel formulations, including products that are kind to the skin despite repeated use. In contrast, ways of improving the drying step have received relatively little attention. However, devices that claim to quickly, yet thoroughly dry hands are now starting to appear in washrooms.

The [Airblade™ drier](#) from Dyson uses two high pressure air 'knives' to scrape water from still hands, typically taking just 10 seconds to dry them. Conventional warm air driers rely on evaporation from the skin and often take at least 30 seconds with rigorous hand rubbing to achieve a satisfactory effect.

In a study comparing the Airblade™ drier against two types of conventional hot air dryer, volunteers first contaminated their hands by handling raw chicken, then washed their hands with soap in a standardised manner (Snelling *et al.*, 2007). They then dried their hands for 10 seconds, using one of the three types of machine. After touching aluminium foil, transfer of any bacteria remaining on the fingertips to this surface was measured. For this short drying time, the Airblade led to significantly less bacteria being transferred than with the other driers. When the conventional driers were used for 30 seconds, there was still a trend for the Airblade to lead to less contamination of the foil.

Another hygiene benefit of the Airblade™ drier is that users do not need to touch any buttons or surfaces of the machine when using it. This eliminates the chance of picking up bacteria transferred to the unit from the hands of previous users. It also filters incoming air to remove 99.9% of bacteria, ensuring that hands are being dried with clean air.

The Dyson Airblade™ drier recently became the first product to be accepted into the Royal Society for Public Health's new accreditation scheme, which is designed to endorse products that support health, hygiene and safety.

See RSPH Press release

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References and recommended reading relating to hand drying

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