Criteria for allergy-friendly humidifiers

Background

Exposure to dry indoor air, especially during the winter heating period, can lead to dryness and irritation of the upper respiratory tract and skin.

The irritated or damaged mucous membrane, mainly in the upper but sometimes also the lower respiratory tract, is a key point of entry for pathogens that cause respiratory infections. The assumption therefore is that respiratory infections can be prevented by avoiding dry air. In addition, dry air may create an unpleasant environment.

Humidifiers can be used to increase the humidity in rooms ventilated through open windows and help prevent bronchial dryness symptoms of the eyes and skin, and irritation of the upper and/or lower airways in people with hay fever or asthma. They can also prevent infections in the home, in childcare and youth centres or at the workplace.

The European Centre for Allergy Research Foundation (ECARF) certifies humidifiers as allergy friendly if they bring about a measurable improvement in relative humidity (> 20% to < 70%) when used daily.

The test criteria are based on the question of whether the use of a humidifier results in a health risk for people with prior damaged to the mucous membranes in the upper and lower respiratory tract and eyes. In order to minimise the potential risks when using a humidifier, ECARF grants its Seal of Quality to devices that meet the following requirements:

1. Test criteria
1.1 Required product features

- The filter installed in the device must be accessible to the user and can be visually inspected. If the filter shows visible contamination, it must be replaced.
- The limescale and antibacterial filters built into the appliance must trap bacteria and other small particles.
- The user of a device must be expressly informed that the water feeding into the device (clear tap water) must not be mixed with any other substances or solutions. The operating instructions of the appliance must contain information in this regard.
- The device may not emit any UV radiation visible to the eye. The manufacturer must provide information in this regard.
- The optimal range of relative humidity from a medical standpoint, which still ensures a tolerable comfort level, is between 20% and 70%. The relative humidity to be adjusted must therefore not exceed 70% and not fall below 20%. When the threshold values are reached, the device must switch itself off or adjust

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humidification from that point on.

- The device may not produce visible fog in order to prevent humidification of the area surrounding the device.

1.2 Subject testing

The device must proven in tests on human subjects to be well-tolerated by people with sensitive airways. Tolerability is demonstrated in an application study with at least 20 subjects with bronchial asthma in accordance with the manufacturer's specifications. The application period may vary depending on the product type. If none of the test subjects experience an irritant reaction or deterioration of their physical condition within a 30 to 45 minute period, the product is considered to be well-tolerated by people with sensitive airways.

2. Quality control and complaint management

The manufacturer has established a functional system of quality control that effectively documents, processes and follows up complaints. The system ensures the following:

- The manufacturer's contact details, such as the address, telephone number and/or email address, are clearly visible on the product packaging;
- Consumer complaints are handled and followed up in an appropriate manner by qualified and experienced personnel of the manufacturer;
- The assessment of consumer complaints and, if applicable, any inferred areas of improvement are reapplied to product quality and safety. The manufacturer agrees to make this data available to ECARF on an ongoing basis.

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