

# Technology Offer

## Improved Suction Toothbrush

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### Challenge

Dental hygiene for patients who cannot swallow or perform routine oral care is a major challenge for care givers: On the one hand, food residues and mucus in the oral cavity can result in painful bacterial or fungal infection of the oral mucosa, or even pneumonia; on the other hand these patients are at risk for aspirating residual dental care products, since they often are unable to resist swallowing and may lack safety reflexes. Suction tooth brushes reduce these risks as they allow to remove food residues or fluid from the oral cavity before and after brushing. Currently available models on the market however suffer from various disadvantages including their oval head shape and rather big size and the fact that the rectangular suction opening is placed at the lower end of the tooth brush head.



Suction tooth brush with conical nozzle.

### Technology

The improved suction tooth brush is designed to overcome these limitations. It provides a slimmer head than commercially available suction tooth brushes. The conical rubber suction nozzle is located in the middle of a circular brush head at 4-5 mm distance from the bristles and is slightly elevated relative to the plane of the brush head. The suction power of the brush is greatly enhanced due to the space between the bristles and the nozzle, thus increasing safety for the patient, since excess fluid can now easily be removed. The suction tube fits into suction equipment found in most hospitals. Both a rigid suction brush head as well as an oscillating version with a small electrical motor can be manufactured. Furthermore, single- or multi-use models may be provided to best match customers needs.

### Commercial Opportunity

In-licensing is possible; a clinical infrastructure for further testing on patients can be provided.

### Developmental Status

A prototype has been tested in a clinical setting .

### Patent Situation

Utility model status was granted in 2009 (20 2009 004 445.9).

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