

Ingestible Toothpaste

Toothpaste is not something one readily associates with the space program but it was one of the myriad considerations of putting man into space. Back in the 1960s, manned spacecraft were small and cramped, every available inch packed with mission-related equipment. It was impractical to include facilities for brushing teeth in the normal fashion, for example, a lavatory basin for expectorating and a system for handling the expectorated waste in a zero-gravity environment. Planning for long duration flights, NASA became concerned about astronauts' oral hygiene and sought an answer.

It was supplied by Dr. Ira L. Shannon, a dental consultant to Johnson Space Center associated with the Oral Disease Research Laboratory of the Veterans Administration Hospital in Houston, Texas. Under NASA contract, Dr. Shannon developed a new type of toothpaste that is foamless and can be swallowed after use. Comparison tests with a commercially available dentifrice showed that there was no significant difference in the cleaning ability and user acceptance of the two types of toothpaste. Applied without water, the pleasantly-flavored ingestible toothpaste has been used for years by astronauts in space and on Earth, in some instances even by their families. Last year it was introduced to the commercial market by Scherer Laboratories, Inc., Dallas, Texas as NASAdent.



The dentifrice is by no means a fad product; it is an important aid to maintaining oral hygiene among patients in hospitals, nursing homes and other special care facilities. A prime advantage is the fact that NASAdent's formulation eliminates the possibility of choking on air bubbles, a problem among total nursing care patients. It also offers major benefit to certain categories of patients, such as those bed-confined in hospital wards who might not have facilities for expectoration; paraplegics confined to wheelchairs; patients with oral-facial paralysis whose ability to expectorate is limited; the mentally handicapped; and others whose illness require that attendants carry out the teethbrushing for them. Scherer Laboratories suggests that NASAdent is also useful as a first toothpaste for children because of its ingestibility and lack of foam.

