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Effect of Microgravity on Oral Biofilms: Dentist on Mars

The saliva is produced from submandibular, sublingual and parotid salivary grand. The duct of submandibular and sublingual salivary grand is located in sublingual area in the oral cavity. The duct of parotid salivary gland is located anatomically at upper, buccal and beneath the mucosa. The incidence of dental caries in the lower anterior teeth soaked by submandibular, sublingual and parotid saliva is lower than that in the upper anterior teeth. While, the incidence of dental caries in the lower molar is higher than the incidence in the upper molar. The parotid saliva collects on the upper and oral cavity in microgravity. Because saliva flow is disturbed from upper to lower oral cavity by microgravity. Therefore, the lower and higher incidence of dental caries in the lower anterior and molar teeth may change in the microgravity. The production of stimulated saliva reduces, because stress of muscles for keeping and moving of sub-mandibular jaw reduced in microgravity. Taken together, the formation of oral biofilms in microgravity change also from that in gravity on the earth. So, I would like to informed all space agencies to explore oral aspects related to microgravity .

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