No long-term change found in caries prevalence in early South-East Asians

Archaeological findings question relationship between rise of agriculture and oral health

Researchers from universities in Thailand and Cambodia, however, clinicians and anthropologists have recently found no evidence to support the theory that oral health in this region declined over time owing to the intensification of agriculture.

While caries prevalence in the samples differed from site to site, there was no chronological relationship between them, the researchers reported, suggesting that agriculture and change in diet did not have a long-term impact on the oral health of South-East Asians as previously believed. However, caries prevalence in deciduous teeth was consistently found to be higher than in permanent teeth, which the researchers believe could be due to the more cariogenic food, such as fruit and root grubs, that children were given at a very early age before switching to less-cariogenic food like rice.

Children seemed to have incurringly relied on rice as the main source of food later in life, as caries levels in permanent teeth were found to be relatively low throughout all samples.

Fluoride reduces bacterial adhesion

Researchers from Germany have discovered that fluoride decreases the adhesive forces of oral bacteria and cariogenic pathogens in particular. Testing the adhesion of caries-inducing Streptococcus mutans, Streptococcus oralis and Staphylococcus carnosus to smooth, high-density hydroxyapatite surfaces, which were produced especially for the experiments and resembled tooth enamel in their composition, they observed lower adhesive forces after fluoride treatment of the surfaces in all bacteria species. Compared with untreated surfaces, the adhesion was only half as strong.

In contrast to prior studies that traced the cavity-preventive effect of fluoride back to effects on demineralisation, the findings suggested that the decrease in adhesive forces is a key factor of the cariostatic effect of fluoride. This could help improve dental fillings, dentures and implants in the future, the researchers concluded.