**Study shows acidic food and drink can damage teeth**

**Posted on 11/10/2011**



Eating fruit such as apples could be up to four times more damaging to teeth than carbonated drinks, according to a new study led by Professor David Bartlett at the King’s Dental Institute.  
  
Published in the *Journal of Dentistry*, the study looked at links between diet and tooth wear at several sites in the mouth, in more than 1,000 men and women aged 18 to 30.  
  
The researchers looked for damage to the 2mm surface enamel of volunteers’ teeth, and at the dentine, the main supporting structure of the tooth beneath the enamel, and compared it with a questionnaire about their diet.  
  
The findings showed that people who ate apples were 3.7 times more likely to have dentine damage, while those who consume carbonated drinks had no additional risk.  
  
Fruit juice increased the likelihood of damage to the enamel around the top of the teeth near the gums fourfold, while lager, which is acidic, raised the chances of dentine damage by up to three times.  
  
Professor David Bartlett, Head of Prosthodontics at the Dental Institute, said: ‘It is not only about what we eat, but how we eat it.  
  
'Doctors quite rightly say that eating apples is good, but if you eat them slowly the high acidity levels can damage your teeth.

The drinks most often associated with dietary erosion, particularly cola, showed no increased risk in this study.  
  
‘The results emphasise that dietary advice should be targeted at strong acids rather than some of the commonly consumed soft drinks.'  
  
The researchers say that they do not want these findings to deter people from consuming fruit and fruit juices, as they are important for overall health and wellbeing.    
  
‘The underlying message is that acids in your diet can damage teeth if consumed throughout the day.

These acids can dissolve the teeth if the mouth is not given sufficient time to counteract the effect.

'Snacking on acidic foods throughout the day is the most damaging, whilst eating them at meal times is much safer.

It's not what you eat it's how you eat it - an apple a day is good, but taking all day to eat the apple can damage teeth,’ Professor Bartlett continued.  
  
‘The results of this study confirm previous clinical observations and add to our understanding of tooth wear and provide further evidence that drinking behaviour and the consumption of foods with strong acidity are important factors in tooth erosion,’ he concluded.

For more information on King's, see our '[King's in Brief](http://www.kcl.ac.uk/newsevents/About-Kings.aspx)' page.