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Dentistry by Appointment

## Enamel Destruction of Various Beverages

The following is a compilation of 2 studies made by J. Anthony von Fraunhofer MSc, PhD and Mathew M Rogers DDS published in the journal of the American Academy of General Dentistry, Gen Dent 2004:308-312 and 2005: 28-31. They show that the acidity of the beverage is less important than the type of acid used in the product. The worst offenders were seasoned with citric acid.

Beverage	pH	Enamel Loss	Acid Type
Tap water (control)	6.70	-0.05	None
A&W (root Beer)	4.80	-0.03	None
Brewed black coffee	6.25	0.34	None
Brewed black tea	5.36	0.35	None
Coca-Cola	2.61	2.78	Phosphoric
Diet Dr. Pepper	2.99	2.99	Phosphoric
Diet Coca-Cola	3.22	3.07	Phosphoric
Dr. Pepper	2.90	3.21	Phosphoric
Diet Pepsi-Cola	2.94	3.22	Phosphoric & citric
Pepsi- Cola	2.60	3.31	Phosphoric & citric
Canada Dry (ginger ale)	2.94	6.31	Citric
Diet Sprite	3.34	6.43	Citric
Sprite	3.27	8.60	Citric
Arizona iced tea	2.94	9.03	Citric
Nestea iced tea (sweetened lemon flavor)	3.41	9.49	Citric
Fanta orange	2.88	12.15	Citric
Propel (natural lemon flavor)	3.38	12.29	Citric
Nantucket Nectars (half = half)	2.98	12.49	Citric
AMP energy drink	2.81	14.01	Citric
Mountain Dew	3.14	14.31	Citric
Diet Mountain Dew	3.27	14.82	Citric
Powerade (Arctic Shatter)	2.78	16.98	Citric
Gatorade (lemon-lime)	2.95	20.05	Citric
Red Bull energy drink	3.32	21.40	Citric
Snapple Classic Lemonade	2.64	29.28	Citric
KMX energy drink	2.74	29.68	Citric

Measured in mg/cm<sup>2</sup> over 14 days of immersion.

# Enamel destruction Caused by common Beverages

