

Online Research @ Cardiff

This is an Open Access document downloaded from ORCA, Cardiff University's institutional repository: <https://orca.cardiff.ac.uk/117029/>

This is the author's version of a work that was submitted to / accepted for publication.

Citation for final published version:

Clapp, Oliver, Morgan, Maria Z. and Fairchild, Ruth M. 2019. The top 5 selling UK energy drinks: implications for dental and general health. *British Dental Journal* 226 (7) , pp. 493-497. 10.1038/s41415-019-0114-0 filefile

Publishers page: <http://dx.doi.org/10.1038/s41415-019-0114-0>
<<http://dx.doi.org/10.1038/s41415-019-0114-0>>

Please note:

Changes made as a result of publishing processes such as copy-editing, formatting and page numbers may not be reflected in this version. For the definitive version of this publication, please refer to the published source. You are advised to consult the publisher's version if you wish to cite this paper.

This version is being made available in accordance with publisher policies.

See

<http://orca.cf.ac.uk/policies.html> for usage policies. Copyright and moral rights for publications made available in ORCA are retained by the copyright holders.



FIGURES and TABLES

Figure 1 pH values of the top 5 Selling Energy Drinks in the UK

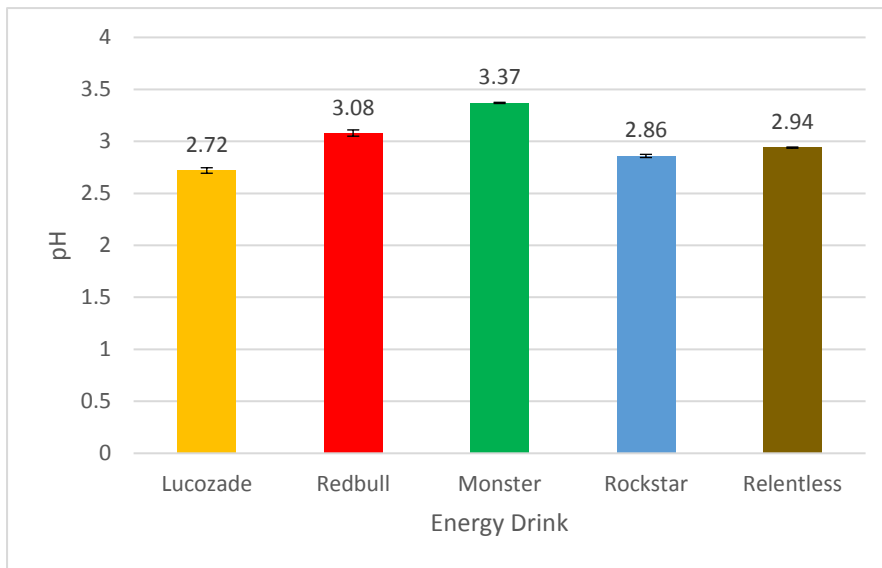


Figure 2 Free sugar content per 100ml of the top five Selling Energy Drinks in the UK.

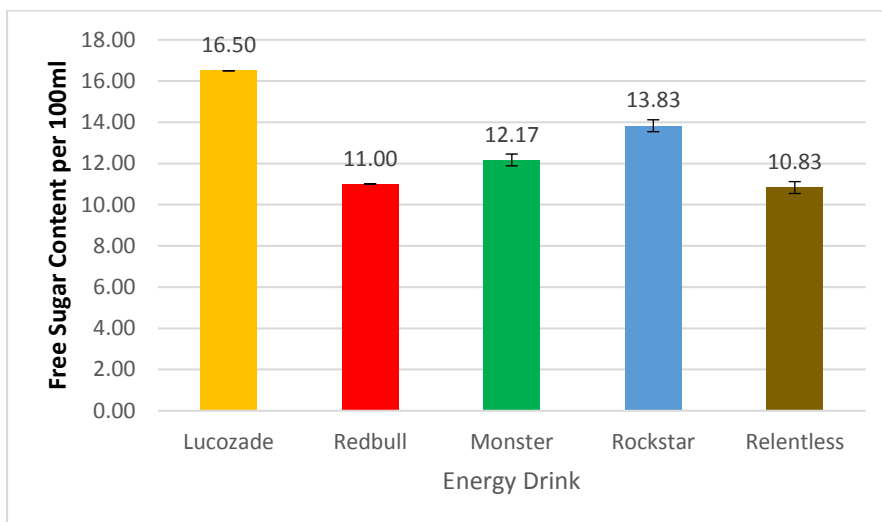


Table 1 Sugar Content, energy and % of daily sugar recommendation per serving of Energy Drink

Energy Drink	Sugar(g)/100 ml	Serving Size (ml)	Sugar(g)/Serving Size(ml)	% of Daily Sugar Recommendation*
Lucozade	16.5	380	62.7	170
Redbull	11.0	250	25.5	69
Monster	12.2	500	60.9	165
Rockstar	13.8	500	69.2	187
Relentless	10.8	500	54.2	146

** 5% of daily energy intake calculated for a 19 – 24 year old male (2772kcal, SACN, 2011).*

Table 2 Ingredients of Selected Energy Drinks and Ingredients which impact dental and general health

Energy Drink	Ingredient List	Ingredients regarded as impacting dental and general health
Lucozade Energy (Original)	Carbonated Water, Glucose Syrup (25%), Acids (Citric Acid, Lactic Acid), Flavouring, Preservatives (Potassium Sorbate, Sodium Bisulphite), Caffeine, Antioxidant (Ascorbic Acid), Colours (Sunset Yellow, Ponceau 4R)	Carbonated Water Glucose syrup Citric acid Lactic acid Caffeine Ascorbic Acid
Redbull (Original)	Water, Sucrose, Glucose, Acidifier Citric Acid, Carbon Dioxide, Taurine (0.4%), Acidity Regulator (Sodium Carbonates, Magnesium Carbonate), Caffeine (0.03%), Vitamins (Niacin, Pantothenic Acid, B6, B12), Flavourings, Colourings (Caramel, Riboflavin)	Sucrose Glucose Citric Acid Carbon Dioxide (Carbonated Water) Caffeine
Monster Energy (Original)	Carbonated Water, Sucrose, Glucose Syrup, Acid (Citric Acid), Natural Flavourings, Taurine (0.4%), Acidity Regulator (Sodium Citrate), Panax Ginseng Root Extract (0.08%), L-Carnitine L-Tartrate (0.04%), Caffeine (0.03%), Preservatives (Sorbic Acid, Benzoic Acid), Colour (Anthocyanins), Vitamins (B2, B3, B6, B12), Sodium Chloride, D-Glucuronolactone, Guarana Seed Extract (0.002%), Inositol, Sweetener (Sucralose)	Carbonated Water Sucrose Glucose Syrup Citric Acid Caffeine Sucralose
Rockstar (Blueberry + Pomegranate + Acai)	Carbonated Water, Sugar, Black Carrot Concentrate, Acids (Citric Acid, Lactic Acid, Malic Acid), Flavouring, Green Tea Extract, Caffeine (0.03%), Antioxidant (Ascorbic Acid), Taurine (0.02%), Acidity Regulator (Potassium Phosphate) Guarana Extract (0.01%), Vitamins (Niacin, B6, E)	Carbonated Water Sugar Citric Acid Lactic Acid Malic Acid Caffeine Ascorbic Acid
Relentless (Original)	Carbonated Water, Sucrose, Acid (Citric Acid), Taurine (0.4%), Acidity Regulator (Sodium Citrate), Preservatives (Potassium Sorbate, Sodium Benzoate), Colour (Caramel E150d), Flavourings, Caffeine (0.03%), Vitamins (B3, B5, B6, B12), Guarana Seed Extract (0.002%).	Carbonated Water Sucrose Citric Acid Caffeine