**TEA – REFRESHED WELLBEING**

***ALL YOUR SUMMER HEALTH AND HYDRATION NEEDS IN A CUPPA***

Dr Carrie Ruxton, mum of two, an award winning dietitian and a member of the Tea Advisory Panel (TAP), together with Dr Tim Bond, a tea scientist and also a member of TAP reveals why we should all ensure good hydration round the clock and why a humble cup of tea is just as hydrating as a glass of water.

***Hydration biology – Dr Carrie Ruxton***

“With summer around the corner (we hope!), now is the time to think about good hydration. Hydration is vital throughout the year because it supports the health of all our organs, particularly the kidneys and the skin.

“The kidneys filter the toxins in the blood and influence the amount of water that your body retains or removes. To do this, they need an adequate supply of fluid.

“Likewise, your skin: the skin cells contain 64 per cent of their weight as water. If you become dehydrated, your skin cells lose water potentially affecting your appearance . Muscles also contain water. Like the kidneys, muscles contain up to 80 per cent of their weight in water. Every part of the body needs enough water to function well.

“The problem is that in the summer, enjoying ourselves outside, taking part in sports, going on holiday, simply sitting in the park after work can all take precedence over ensuring good hydration. It’s all too easy to forget to consume the recommended fluid intake from foods and drinks (1.6 litres a day for women, 2 litres a day for women).

“While drinking water helps to achieve an adequate fluid intake, it’s not everyone’s choice so it’s good to know that tea counts too. This applies to tea of all kinds – black tea, green tea, white tea, red bush and the huge array of herbal infusions now available.”

***Tea just as hydrating as water – Dr Tim Bond (TAP)***

“When it comes to hydration, media reports often suggest that tea is less hydrating than water. This is a myth!

“A recent randomised controlled crossover trial conducted by Ruxton and Hart[[1]](#footnote-1) looked at the effect of black (regular) tea consumption on hydration. This was a study in 21 healthy men who drank either four cups of tea or six cups of tea with identical amounts of water as the control drinks, i.e. water (representing a total fluid intake of 1,350mL per day). Each participant took part in both the tea and water study to reduce the risk of bias. Blood samples were taken regularly over a 12-hour period, while urine was collected over 24 hours. Foods and other drinks were controlled during the trial.

“The results from this study showed no significant differences between tea and water for any of the hydration markers, including total urine volume, level of electrolytes (e.g. sodium and potassium) in the blood and urea. The results have been backed by other studies.

“These findings therefore suggest that drinking up to **six cups of tea per day, has the same hydrating properties as water**. The average intake of tea in the UK is two to three cups per day, so most tea drinkers are well within the six cups per day range evaluated in this study.”

**SORTING FACT FROM FICTION: Tea and fluoride**

**Dr Tim Bond**

Confused about tea and fluoride consumption? Read on and find out why you have probably been mislead.

“Contrary to published opinions, tea consumption helps rather than harms the achievement of an adequate fluoride intake. Fluoride is important for dental health and tea is one of the best sources of fluoride in the diet. Research presented by Dr Carrie Ruxton to the UK Nutrition Society[[2]](#footnote-2) shows that that current average intakes of tea fall shortof the Europeanfluoride recommendation suggesting that tea intake should increase to access the benefits of fluoride for dental health.”

“This study replicated the situation of a typical cup or mug of tea in that a single tea bag was added to 240ml of boiling water and brewed for 40 seconds. Tea bags from 49 retail brands were analysed.

“Average fluoride content of black blended tea was 4.91mg/litre and similar to the findings of a study conducted in 2013. [[3]](#footnote-3) However, according to the 2014 NDNS figures, average tea consumption in the UK is 395ml daily while the highest tea intakes are around 1155ml daily.

“Fluoride intakes from tea (which is estimated to provide 70% of the UK’s fluoride intake) will likely be lower than the safe upper level of 7mg daily (5mg in children) even among those people with intakes of tea at the higher end of the population. Moreover, this latest study shows that current average intakes of tea do not provide the RDA of 3.5mg daily for fluoride suggesting that tea intake should increase to access the benefits of fluoride for dental health.”

**LAST WORD**

Tea is a healthy drink bursting with many health and wellbeing benefits from being just as hydrating as water to providing dental health properties thanks to the fluoride content that tea provides.

As the summer begins and with it an increase risk of poor hydration due to warmer weather and more time spent in active pursuits out of doors, tea is an excellent drink to maintain hydration. In addition, it’s worth increasing the average amount of tea drunk in the UK to 3-4 cups daily – up from the current average of 1-2 cups, to access the dental health benefits of fluoride.

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**The Tea Advisory Panel:** The Tea Advisory Panel is supported by an unrestricted educational grant from the **UK TEA & INFUSIONS ASSOCIATION**, the trade association for the UK tea industry. The Panel has been created to provide media with impartial information regarding the health benefits of tea. Panel members include nutritionists; dieticians and doctors.

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1. Ruxton CHS, Hart VA (2011). A randomised cross-over trial to evaluate the impact of black tea on measures of hydration. *British Journal of Nutrition*. 106, 4, 588-595. [↑](#footnote-ref-1)
2. Ruxton, CHS and Bond T. Fluoride content of retail tea bags and estimates of daily fluoride consumption based on typical tea drinking habits in UK adults and children. *Public Health Nutrition* (in press) [↑](#footnote-ref-2)
3. Chan L, Mehra A & Saikat S (2013) Human exposure

   assessment of fluoride from tea (Camellia sinensis L.): A UK

   based issue? *ood Res Int* **51,** 564-570. [↑](#footnote-ref-3)