**HYDRATION ADVICE AWASH WITH DUBIOUS CLAIMS**

**A CUPPA IS A TEA-RRIFIC WAY TO REFRESH, NEW REVIEW FINDS**

Persistent low-level dehydration increases the risk of heart disease and stroke[[1]](#footnote-2) and temporary dips can trigger headaches fatigue and impaired physical and mental performance. But health claims around hydration are awash with myth and misinformation, a new study reveals.

The review[[2]](#footnote-3) of published trials and scientific evidence confirms that tea is terrific for hydration, aids weight control and delivers a host of other health benefits.

Commenting on the new research and a member of the Tea Advisory panel, Dr Tim Bond notes: “We are routinely advised to drink eight glasses of water a day, but there is actually no scientific evidence to support this modern-day mantra — it probably began with a passing comment by American nutritionist Dr Frederick Stare in a book published in 1974.[[3]](#footnote-4)

“In fact, there is such wide variation between evidence-based estimates on our fluid needs that one study reported recommended daily intakes ranging from 0.419 litres (0.73 of a pint) to 4.316 litres (7.59 pints).[[4]](#footnote-5)

“The new review of evidence surrounding tea and hydration also debunks claims that drinks with caffeine don’t count — and outlines seven reasons why tea is a wonderful way to rehydrate.2

“It points to studies showing the great British cuppa protects against cardiovascular disease, diabetes and some cancers. Tea also aids weight loss, strengthens bones and supports cognitive function and dental health.

Dietitian Dr Carrie Ruxton, member of TAP and the main authors of the review, which is about to be published in the British Nutrition Foundation’s *Nutrition Bulletin*, says: “There is a lot of nutri-nonsense and misinformation around the subject of hydration and caffeinated drinks such as tea. Unfortunately, anyone can call themselves a nutritionist or nutritional therapist and dispense inaccurate and ill-informed advice.

“The truth is, our national love of tea makes it an important player when it comes to hydration, but it is also a hugely important source of health-enhancing polyphenols. All the evidence shows that tea ticks a lot of boxes when it comes to healthy hydration.”

**The review confirms seven ways tea is wonderful:**

* Drinking three cups of black tea a day — the classic British cuppa — produces a significant reduction in unhealthy LDL cholesterol, systolic and both diastolic blood pressure. Data from 22 studies suggest regular tea consumption **reduces the risk of coronary heart disease by 27%**.[[5]](#footnote-6) It also **reduces the risk of suffering a stroke, or dying from stroke, by 21%**.5
* The caffeine and catechins in tea stimulate fat oxidation and aid weight loss by counteracting the fall in metabolic rate associated with calorie reduction.
* Drinking tea delivers a significant reduction in the risk of diabetes and helps patients with type 2 diabetes maintain stable insulin levels. One study found the highest levels of tea consumption reduces the risk of type 2 diabetes by 16%.
* Improved attention, alertness, creativity and work performance have been linked to tea consumption while the L-theanine in tea appears to improve concentration and learning.
* Tea appears to protect against some cancers and trials suggest it can slow cancer progression. One study found the highest levels of tea consumption cuts cancer risk by 34%.
* 70% of our dietary intake of fluoride comes in a cuppa, the flavonoids in tea protect against decay and gum disease and tea polyphenols counter bad breath.
* Studies suggest tea reduces bone mineral loss and lowers the risk of fractures associated with osteoporosis. The fluoride in tea is also likely to strengthen bones.

Dr Bond adds; “There are a number of plant compounds in tea which make it tops for health and hydration.

“All forms of tea contain polyphenols, a family of plant compounds which appear to have antioxidant, anti-inflammatory and anti-proliferative properties[[6]](#footnote-7) and almost half the UK intake of health-enhancing flavonoids come from tea.[[7]](#footnote-8)”

In summary, Dr Carrie Ruxton says: “There is a lot of interest in flavonoids because there is now good evidence that they are associated with increased antioxidant activity, reduced lipid peroxide and improved resistance to oxidation of unhealthy LDL cholesterol.”

Tea also contains caffeine at levels which appear to enhance cognition without harming hydration.

As Dr Ruxton explains: “Claims that caffeine causes dehydration are based largely on animal studies or human trials using high doses of caffeine pills rather than caffeinated drinks.

“When it comes to tea there are actually only two trials which specifically examine the impact of tea on hydration — and neither found any problem at all.”

**The science to a tea:**

* 48% of the UK intake of flavonoids come from tea.
* On average we drink three cups of tea a day — down from seven 30 years ago.
* Tea contains amino acids, flavonoid polyphenols, caffeine as well as B-group vitamins, potassium, manganese, zinc and fluoride
* 70% of dietary fluoride in the UK comes from tea
* Average caffeine intake from tea is 92mg
* Men drink more water than women, an average of 2.53 litres a day compared to 2.03 litres.
* Caffeine intakes of up to 6mg per kilogram of body weight have no significant impact on hydration.
* Average UK caffeine intake is 4mg per kg of bodyweight.
* The British Nutrition Foundation hydration model for children aged four to 13 advises younger children can drink up to two cups of unsweetened weak tea a day and older children can have two to three.

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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. Manz F & Wentz A (2005) The importance of good hydration for the prevention of chronic diseases. *Nutrition Reviews* **63** (Part II):S2–5. [↑](#footnote-ref-2)
2. British Nutrition Foundation’s *Nutrition Bulletin* (online – 24/8/15) [↑](#footnote-ref-3)
3. <http://ajpregu.physiology.org/content/283/5/R993> [↑](#footnote-ref-4)
4. Bellisle F, Thornton SN, Hebel P & Tahiri M (2010) A study of fluid intake from beverages in a sample. .*European Journal of Clinical Nutrition* **64**: 350–355. [↑](#footnote-ref-5)
5. ZHANG ET AL (RR=0.73) [↑](#footnote-ref-6)
6. Ruxton, 2009; Mulvihill & Huff, 2010; Dwyer & Peterson, 2013, from Hydration review article [↑](#footnote-ref-7)
7. From hydration review Zamora-Ros *et al.* 2013 [↑](#footnote-ref-8)