4# Oranges **26/01/2021**


(PixaBay)

Oranges are a popular member of the citrus family. They are probably the only fruit in the world that are named for their colour. Imagine calling lemons yellows and cherries reds! Anyway, there a few varieties out there including, tangerines, Jaffa oranges and blood oranges. From a nutritional point of view, they are best known for their Vitamin C content. Let us see what the science actually says.

Variables	Totals
Energy (kcal)	36
Total fat (g)	0.2
Saturated Fat (g)	0.05
Carbohydrates (g)	8.2
Of which sugars (g)	8.2
Protein (g)	0.8
Fibre (g)	1.7
Salt (g)	0.0025

For the basic macronutrients, they are not too different from grapes and apples though oranges contain on average less sugar than either of them per serving and are thus less calorific.

Moving on to vitamins:

Nutrient	Totals
Vitamin C (mg)	52
Pro-Vitamin A/ Beta-Carotene (µg)	55
Vitamin D (µg)	0
Vitamin B9/Folate (µg)	33
Vitamin B7 Biotin (µg)	1

Considering that the RNI for Vitamin C is set at 40mg per day, oranges are indeed an excellent source of this vitamin. Some of the roles Vitamin C play have already been detailed previously in our article on apples (#2), see previous posts. They also contain a low but noticeable amount of provitamin A.

Let's get some clarity on provitamin A; on a very superficial level, vitamin A has 3 bioactive vitamers, retinol, retinal and retinoic acid, each possessing unique biological functions. These active forms of the vitamin, primarily retinol, are found in animal products such as ox and chicken liver and eggs. Plant foods contain only pro-vitamin A; a class of compounds with Vitamin A activity, the most studied and potent one of them being beta-carotene. Once digested, beta carotene is cleaved by enzymes embedded in gut cell walls into 2 molecules of retinol. Whilst theoretically this means you would need 2 micrograms of beta-carotene for 1 microgram of retinol, this is not seen in practice. Rather, the ratio is approximately 6:1. Consequently, it has become standard to characterise carotene-loaded foods as containing such-and such Retinol Equivalents or RE for short. This is important to bear in mind when attempting to meet nutritional requirements (Bender, 2008. Nutrition and Metabolism).

Nutrient	Total
Calcium (mg)	24
Potassium (mg)	122
Iron (mg)	0.11
Selenium (µg)	Tr
Iodine (µg)	1
Zinc (µg)	Tr

Oranges contribute minimally to our calcium needs and a little more for phosphorus, though it should be taken into account that the requirement for phosphorus is set at 3500mg. However, deficiency is rarely seen due to the ubiquity of this mineral in foods.

Sales of citrus fruits did really well this year; with clementine's at position 7, oranges at 9 and lemons at 10. This has been attributed to Covid-19 as consumers have moved towards consuming more Vitamin C-rich fruit.

Hope you enjoyed your read!