



## Tangerine juice: 7 health benefits of a delicious drink

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**Abstract.** Bright orange-yellow fruits, associated with the New Year holidays and the expectation of a miracle, today can be found almost all year round on the counter of any supermarket. But juice from them is a rarer commodity. Mandarin juice can be rarely found on store shelves due to the low profitability of its production. But you can always make a delicious drink yourself. Moreover, freshly squeezed fresh juice that has not been subjected to additional processing is much more useful than its factory counterpart.

**Key words:** tangerine, tangerine juice , useful properties, contraindications, composition, calorie content

### Composition and calories

The calorie content of exotic tangerine juice is quite low, only 43 kcal (the final figure depends on the variety and maturity of the fruit from which the fresh is pressed), and most of it consists of water (88.9%). Given the minimum amount of protein in the drink (0.5 grams per 100 grams of product), fats (0.2 grams) and carbohydrates (10.1 grams) <sup>[1]</sup>, it can be safely included in the menu of people who strictly monitor weight and figure .

In addition, the pulp of the fruit contains a large amount of vitamins and microelements useful for the body:

- Potassium (178 mg). It helps to lower high blood pressure <sup>[2]</sup>, normalizes the functioning of muscle tissues <sup>[3]</sup>, takes part in the supply of oxygen to the brain.

- Vitamin C (31 mg) is the strongest natural antioxidant. Contained in tangerine juice even in greater concentration than in orange! Ascorbic acid helps damaged tissues recover faster, prevents the growth of cancer cells <sup>[4]</sup>, improves skin condition (starts the production of natural collagen) <sup>[5]</sup>, reduces the risk of atherosclerosis <sup>[6]</sup> (strengthens the walls of blood vessels), has a positive effect on the nervous system.
- Calcium (18 mg). Supports the renewal of bone tissue, including the growth of teeth and proper development of the skeleton in babies <sup>[7]</sup>, stabilizes blood pressure <sup>[8]</sup>.
- Phosphorus (14 mg). It is necessary for the body to produce energy (prevents the development of obesity <sup>[9]</sup>), improves the functioning of muscles <sup>[10]</sup> and the brain. <sup>[eleven]</sup>
- Magnesium (8 mg). Promotes accelerated tissue regeneration, in tandem with calcium improves bone growth, stabilizes muscle tone and prevents the occurrence of seizures. <sup>[12]</sup>
- Vitamin A (253 IU). It has antioxidant properties and helps to prolong the youth of the body, accelerates skin regeneration <sup>[13, 14]</sup>, improves vision. <sup>[15]</sup>
- Beta-cryptoxanthin (214 mcg). Prevents the development of oncological diseases, <sup>[16]</sup> as well as asthma, <sup>[17]</sup> cataracts, cardiovascular problems.

Mandarin is rich in other useful substances: arginine, aspartic and glutamic acids, etc.

## **Top 7 Health Benefits of Tangerine Juice**

### **1. Promotes weight loss**

The fruit contains a special alkaloid, synephrine. The substance has high fat-burning properties - it is often used by weight and figure watchers as an effective supplement to strength exercises. <sup>[18]</sup> But why drink expensive and not always safe dietary supplements, if they can be replaced by a few glasses of delicious tangerine juice that you can make yourself!

### **2. Calms the nervous system**

Tangerine juice has a positive effect on the nervous system and can even be used in the treatment of neurological disorders. <sup>[19]</sup> Great replacement for antidepressants!

### **3. Helps Fight Intestinal Disorders**

Citrus flavonoids, found in abundance in tangerine pulp, have anti-inflammatory properties. Citrus juice has a positive effect on intestinal microbiotics, cleanses it of dangerous infections and stops fermentation processes, and generally improves gastrointestinal functions. <sup>[20]</sup>

### **4. Protects Against Cancer**

Studies show that fruits high in carotene, including [tangerines](#) (containing 38 micrograms of beta-carotene), help prevent the development of cancer in various organs. <sup>[21]</sup>

### **5. Reduces Inflammation**

Daily consumption of citrus fresh juices, including tangerines, has a positive effect on immunity. In addition, they contain a large amount of vitamin C, a water-soluble antioxidant, and important bioactive polyphenols, hesperidin, naringenin, which help reduce inflammation in tissues and organs. <sup>[22]</sup>

### **6. Improves men's health**

The systematic use of tangerine fresh has a positive effect on male potency. The drink improves sperm quality and increases sperm motility. <sup>[23]</sup> Are you thinking about adding to your family? Be sure to supplement your daily diet with delicious and healthy freshly squeezed tangerine juice!

## **7. Favorably affects the condition of the skin**

Tangerines are high in antioxidants. They block oxidative processes in the body, contribute to the resumption of the production of their own collagen, which has a positive effect on the beauty of the skin - they become more dense and toned. <sup>[24]</sup> The elixir of youth exists! And you can see for yourself by adding a few glasses of refreshing orange juice to your daily diet.

Mandarin juice is also widely used in cosmetology. Refreshing and rejuvenating masks, effective cleansing scrubs, moisturizing and softening balms are prepared from it. And alcohol tincture from the peel of citrus fruits, including mandarin, is an excellent anthelmintic. <sup>[25]</sup>

## **Harm and features of the use of tangerine fresh**

Citrus juices, in particular grapefruit and tangerine, are not recommended to drink medicines. Such a tandem can neutralize the effect of medications or even lead to dangerous side effects. <sup>[26]</sup>

The use of pure concentrated juices adversely affects the health of the teeth - the acid has a destructive effect on tooth enamel. <sup>[27]</sup> Therefore, it is recommended to drink such drinks through a straw to minimize acid contact with the teeth. Also, dentists advise to carry out thorough oral hygiene after tasting such liquids.

Mandarin, like other citrus fruits, belongs to the category of allergenic products. Therefore, it should be used with caution by people prone to allergies. It is also very careful to acquaint the kids with it. It is worth starting tasting crumbs (not earlier than from 12 months of age) with a small portion of juice, literally with a few drops diluted with water. If skin and intestinal reactions do not appear, the dose can be gradually increased.

## **Rules for the use of tangerine juice**

For babies under the age of 3, it is recommended to give tangerine juice in small quantities (up to 50 ml), further diluting the drink with water to reduce the concentration. For older children, the rate can be increased to 100 ml. Adults are recommended to drink up to 500 ml of tasty and healthy fresh juice daily.

## **How to make tangerine juice**

To prepare a drink, you need to choose juicy sweet intact fruits. It is desirable that they do not have bones. Peel the fruit from the peel (the skins can be dried and used to brew a fragrant healthy tea - the peel also contains a huge amount of antioxidants <sup>[28]</sup>). Pour boiling water over the slices beforehand to increase the liquid yield, and then squeeze the juice out of them using a juicer. If this household appliance is not on the farm, you can chop the fruit in a blender, and then squeeze the resulting puree through a sieve or gauze.

**Note!** The maximum health benefit comes from freshly squeezed fresh juice that came out of the juicer no later than 4 hours ago. It is in this drink that contains the most vitamin C and other trace elements. Over time, under the influence of ambient temperature and interaction with oxygen, beneficial substances gradually decompose and evaporate from the drink. <sup>[29]</sup>

**Expert comment****Tatyana Eliseeva, nutritionist, nutritionist**

Tangerine juice is not only a delicious dessert, but also an excellent substitute for numerous medicines. It helps to saturate the body with all the necessary vitamins and minerals, get rid of blues and depression, maintain a slim figure and even prolong youth! That is why, with the onset of the citrus season, I recommend that you definitely include this refreshing and healthy drink in your family's daily diet.

**Literature**

1. Tangerine juice, raw <https://fdc.nal.usda.gov/fdc-app.html#/food-details/169925/nutrients>
2. McLean, R.M., & Wang, N.X. (2021). Potassium. In *Advances in Food and Nutrition Research* (Vol. 96, pp. 89-121). Academic Press. DOI: 10.1016/bs.afnr.2021.02.013
3. Kumssa, DB, Joy, EJ, & Broadley, MR (2021). Global Trends (1961–2017) in human dietary potassium supplies. *Nutrients*, 13(4), 1369. DOI: 10.3390/nu13041369
4. Magri, A., Germano, G., Lorenzato, A., Lamba, S., Chilà, R., Montone, M., ... & Bardelli, A. (2020). High-dose vitamin C enhances cancer immunotherapy. *Science Translational Medicine*, 12(532), eaay8707. DOI: 10.1126/scitranslmed.aay8707
5. Gref, R., Deloménie, C., Maksimenko, A., Gouadon, E., Percoco, G., Lati, E., ... & Couvreur, P. (2020). Vitamin C–squalene bioconjugate promotes epidermal thickening and collagen production in human skin. *Scientific reports*, 10(1), 1-12. DOI: 10.1038/s41598-020-72704-1
6. Spittle, C. (1971). Atherosclerosis and vitamin C. *The Lancet*, 298(7737), 1280-1281. DOI: 10.1016/s0140-6736(71)90601-5
7. Bronner, F. (2003). Calcium nutrition and metabolism. *Dental Clinics*, 47(2), 209-224. DOI: 10.1016/s0011-8532(02)00097-6
8. Villa-Etchegoyen, C., Lombarte, M., Matamoros, N., Belizán, JM, & Cormick, G. (2019). Mechanisms involved in the relationship between low calcium intake and high blood pressure. *Nutrients*, 11(5), 1112. DOI: 10.3390/nu11051112
9. Ayoub, JJ, Samra, MJA, Hlais, SA, Bassil, MS, & Obeid, OA (2015). Effect of phosphorus supplementation on weight gain and waist circumference of overweight/obese adults: a randomized clinical trial. *Nutrition & diabetes*, 5(12), e189-e189. DOI: 10.1038/nutd.2015.38
10. Grünberg, W., Scherpenisse, P., Dobbelaar, P., Idink, MJ, & Wijnberg, ID (2015). The effect of transient, moderate dietary phosphorus deprivation on phosphorus metabolism, muscle content of different phosphorus-containing compounds, and muscle function in dairy cows. *Journal of Dairy Science*, 98(8), 5385-5400. DOI: 10.3168/jds.2015-9357
11. Bird, R.P., & Eskin, N.M. (2021). The emerging role of phosphorus in human health. In *Advances in Food and Nutrition Research* (Vol. 96, pp. 27-88). Academic Press. DOI: 10.1016/bs.afnr.2021.02.001
12. Garrison, S.R., Korownyk, C.S., Kolber, M.R., Allan, G.M., Musini, V.M., Sekhon, R.K., & Dugré, N. (2020). Magnesium for skeletal muscle cramps. *Cochrane Database of Systematic Reviews*, (9). DOI: 10.1002/14651858.CD009402.pub3
13. Garrison, S.R., Korownyk, C.S., Kolber, M.R., Allan, G.M., Musini, V.M., Sekhon, R.K., & Dugré, N. (2020). Magnesium for skeletal muscle cramps. *Cochrane Database of Systematic Reviews*, (9). DOI: 10.3390/nu14142952
14. Polcz, M.E., & Barbul, A. (2019). The role of vitamin A in wound healing. *Nutrition in Clinical Practice*, 34(5), 695-700. DOI: 10.1002/ncp.10376
15. Dowling, J.E. (2020). Vitamin A: its many roles—from vision and synaptic plasticity to infant mortality. *Journal of Comparative Physiology A*, 206(3), 389-399. DOI: 10.1007/s00359-020-01403-z

16. Lim, JY, & Wang, XD (2020). Mechanistic understanding of  $\beta$ -cryptoxanthin and lycopene in cancer prevention in animal models. *Biochimica et Biophysica Acta (BBA)-Molecular and Cell Biology of Lipids*, 1865(11), 158652. DOI: 10.1016/j.bbalip.2020.158652
17. 奥山聡. (2015). YAKUGAKU ZASSHI, 135(10), 1153-1159. DOI: 10.1248/yakushi.15-00205
18. Ruiz-Moreno, C., Del Coso, J., Giráldez-Costas, V., González-García, J., & Gutiérrez-Hellín, J. (2021). Effects of p-synephrine during exercise: a brief narrative review. *Nutrients*, 13(1), 233. DOI: 10.3390/nu13010233
19. Wood, LG, & Gibson, PG (2010). Reduced circulating antioxidant defenses are associated with airway hyper-responsiveness, poor control and severe disease pattern in asthma. *British journal of nutrition*, 103(5), 735-741. DOI: 10.1017/S0007114509992376
20. Stevens, Y., Rymenant, EV, Grootaert, C., Camp, JV, Possemiers, S., Masclee, A., & Jonkers, D. (2019). The intestinal fate of citrus flavanones and their effects on gastrointestinal health. *Nutrients*, 11(7), 1464. DOI: 10.3390/nu11071464
21. Palmer, S. (1985). Diet, nutrition, and cancer. *Progress in food & nutrition science*, 9(3-4), 283-341. PMID: 3010379
22. Miles, EA, & Calder, PC (2021). Effects of citrus fruit juices and their bioactive components on inflammation and immunity: a narrative review. *Frontiers in immunology*, 12, 2558. DOI: 10.3389/fimmu.2021.712608
23. Jimoh, OA, Ayedun, ES, Ayodele, SO, Omoniyi, SI, Oladepo, AD, Lawal, AA, ... & Kolawole, BJ (2021). Oxidative status and spermatozoa kinetics of rooster semen in citrus juice-based diluent. *Tropical Animal Health and Production*, 53(1), 1-8. DOI: 10.1007/s11250-020-02482-5
24. Kim, DB, Shin, GH, Kim, JM, Kim, YH, Lee, JH, Lee, JS, ... & Lee, OH (2016). Antioxidant and anti-ageing activities of citrus-based juice mixture. *Food Chemistry*, 194, 920-927. DOI: 10.1016/j.foodchem.2015.08.094
25. Abdelqader, A., Qarallah, B., Al-Ramamneh, D., & Daş, G. (2012). Anthelmintic effects of citrus peels ethanolic extracts against *Ascaridia galli*. *Veterinary Parasitology*, 188(1-2), 78-84. DOI: 10.1016/j.vetpar.2012.03.003
26. Theile, D., Hohmann, N., Kiemel, D., Gattuso, G., Barreca, D., Mikus, G., ... & Weiss, J. (2017). Clementine juice has the potential for drug interactions—in vitro comparison with grapefruit and tangerine juice. *European Journal of Pharmaceutical Sciences*, 97, 247-256. DOI: 10.1016/j.ejps.2016.11.021
27. Liska, D., Kelley, M., & Mah, E. (2019). 100% fruit juice and dental health: A systematic review of the literature. *Frontiers in public health*, 190. DOI: 10.3389/fpubh.2019.00190
28. Singh, B., Singh, JP, Kaur, A., & Singh, N. (2020). Phenolic composition, antioxidant potential and health benefits of citrus peel. *Food Research International*, 132, 109114. DOI: 10.1016/j.foodres.2020.109114
29. Singh, B., Singh, JP, Kaur, A., & Singh, N. (2020). Phenolic composition, antioxidant potential and health benefits of citrus peel. *Food Research International*, 132, 109114. DOI: 10.1590/0001-3765202020190328

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**Abstract.** The article discusses the main properties of tangerine juice and its effect on the human body. A systematic review of modern specialized literature and relevant scientific data was carried out. The chemical composition and nutritional value of the drink are indicated, the use of tangerine juice in various types of medicine and the effectiveness of its use in various diseases are considered. The potentially adverse effects of tangerine juice on the human body under certain medical conditions and diseases are analyzed separately.