

Black and yellow carrot: Health booster

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In India, iron-deficiency anemia is widespread among the huge population. According to the National Family Healthy Survey, 2004-05, children under the age of three (78.9 %) and women (55 %); men follow at 24 % were anemic in India. In 2005, Global Burden of Disease (GBD) survey ranked anemia initiated by the lack of mineral iron in the body as the chief factor for disability in India. The newest report available last year shows that it caused 10.56 % of all Years Lived with Disability (YLDs). In 2015, 10.56 % of total YLDs were owing to iron-deficiency anemia. Related to Brics nations, these percentages are twice Russia's and thrice China's.

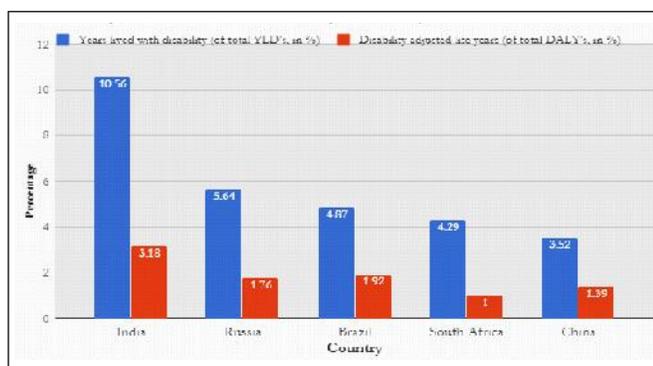


Fig. 1 : Disability due to anaemia, by country

Agricultural products like fruits and vegetables should be enriched with iron and other essential nutrients to overcome anemia from our country. Various types of fruits and vegetables which are high in iron can be cultivated and consumed in processed or raw form. So, there is a root vegetable which can be easily grown on farmer's field in the winter season and also is the immense source of iron and antioxidants. So, here are the benefits of some processed products of black carrot which is high in iron and other antioxidants.

Black and yellow carrots have different nutrients. Black carrot is an excellent source of anthocyanins. Anthocyanins help lower bad cholesterol (LDL) along with helping protect the arteries against oxidation. Anthocyanins also help protect us against various forms of cancer. Its anti-oxidant activity is four times higher than red carrot.

Flavonoids are currently under investigation as anticancer compounds, as free radical scavengers in living systems, as well as inhibitors of LDL cholesterol.



Keeping in mind the importance of black carrot as it carry immense source of different vital nutrients. So, there are different products which can be prepared from the black carrot. The fresh black carrots are suitable for salad, juice, pickle and kanji which are good appetizer. The consumption of proper amount of black carrot's salad and other products prevent its consumers from different types of diseases.

Black carrot juice:

- Black Carrot Juice is an excellent blood cleanser. It has a high content of iron and vitamin C. It helps maintain eye health and blood circulation. It is good for constipation, stomach disorders and makes the skin healthy and glowing. Owing to its highly fibrous nature, it keeps the alimentary canal clean and regulated.

- Black carrot juice concentrate includes over 12 times more antioxidant in comparison with regular carrot concentrate.

- The concentrate includes 40% more Beta carotene in comparison with regular carrots concentrate.

- Black carrot juice concentrate is appetizing, good for digestion, includes vitamin B which is a tranquilizer, good for liver and stomach, it includes calcium, potassium and iron which are good for bones and teeth.

- 100 g of black carrot includes just 20 calories which helps to control body weight.

- Black carrot juice has 28 times in anthocyanin than a standard orange carrot.

Carrot kanji : Carrot kanji is a traditional Punjabi fermented drink that is made in the winters. Black carrots appear in the winters in north India and these give the

kanji its characteristic purple colour.

Preparation of kanji :

Ingredients:

- 5-6 medium sized carrots
- 2 small beetroots
- 8 cups water - approx 2 litres of water (boiled and filtered or purified)
- 1 or 1.5 tablespoon red chili powder 3 tablespoon mustard powder
- Black salt as required

Instructions:

- Rinse and then peel the carrots and beetroots
- Chop into long pieces
- Mix all the ingredients in a glass or jars
- Cover with a muslin cloth and keep the jars in the sun for 3-4 days
- Stir with a wooden spoon every day before keeping the jars back in the sun
- When the kanji tastes sour, it means the drink is fermented
- Serve carrot kanji straightway or refrigerate

Benefits of yellow carrots :

- Yellow carrots contain xanthophyll's and lutein, pigments similar to beta carotene, which help develop healthy eyes aid in the fight against macular degeneration
- Intake of xanthophyll-rich foods is associated with a significant reduction in the risk for cataract (upto 20%) and for age-related macular degeneration (upto 40%).
- Lutein, an antioxidant, is one of the carotenoid that makes up the macular pigment of human retinas. Consuming foods high in lutein may increase the density of this pigment and decrease the risk for developing macular degeneration.

Iron tablets have many negative effects like vomiting and diarrhea for instance—which, at the time of pregnancy, add to a woman's restlessness. So, consuming carrots are known to be good for the overall health and specially organs like the skin, eyes, digestive system and teeth. Carotene, anthocyanin and lutein are famous ingredients in carrots that acts as anti-oxidants and has powerful healing virtues for many diseases. Drinking a glass of carrot juice daily will do much more for you than many bottles of supplement tablets.



Fig. 2 : Carrot juice



Fig. 3 : Carrot kanji

Note : Punjab Black Beauty is a black coloured carrot variety released by Punjab Agricultural University. Roots get eatable maturity within 90-95 days after sowing. For sowing August-September is the best time. A seed rate of 4 to 5 kg for carrot is sufficient for one acre. Spacing of 45 cm between ridges and 7.5 cm between plants is kept.

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