

Nutritional Value of Dry Fruits and their Vital Significance - A Review

Pooja Dhiman*, Kanika Soni, Sandeep Singh
 Department of Applied Sciences,
 Chitkara University, Kalujhanda, Barotiwala,
 Solan, Himachal Pradesh, India
 *pooja.dhiman@chitkarauniversity.edu.in



ABSTRACT

As a snack, dried fruit is drastically superior to junk foods, such as potato chips, pretzels, candy bars, and other unhealthy indulgences people reach for when they are hungry between meals. Dry fruits are small but are extremely rich sources of minerals and proteins. Every diet specialist always recommends a handful of dry fruits in our diet in order to keep us healthy and fit. There are just umpteen varieties in dry fruits such as raisins, cashew nuts, almonds, pistachios, walnuts, dates, plums, raisins and the list goes on.

Key words: Dry fruits, Anti-ageing, Weight loss, Antioxidants.

INTRODUCTION

Dry fruits possess a lot of medicinal properties because of the ample amount of nutrients that are present in them. Though the dry fruits are really expensive and are regarded as delicacies but the health benefits that they possess makes them worth their price. This article consists of the health benefits that different dry fruits have and therefore the reasons to include dry fruits in our diet if we want to stay healthy and sound. However, we must put some restrictions on the amount of intake of dry fruits as excess of anything can be harmful. Dried fruit contains no fat, cholesterol, or sodium. It also helps to sweeten bland food without adding refined sugars. Small bits of dried fruit can be added to plain yogurt, oatmeal, or wholegrain breakfast cereal, making it more palatable to young children and others who would not be able to stomach such foods otherwise. Dried fruits are also a food of convenience. Because the fruit is much smaller when dehydrated, it can be taken

in backpacks without adding a lot of extra weight. Dried fruit is perfect for long trips.

Raisins (kishmish) ^[4] –

are the type of fruit that needs oil to help in their packaging. Many cereal giants infuse or soak their raisins in glycerine so they don't clump up in the cereal boxes or, worse yet, break some consumer's teeth. (Of course, the glycerine is inspected before being shipped to the cereal plants). There are some companies that do not use oil and others that (at least domestically) almost always use kosher oil. Therefore, barring Pesach, domestic raisins may be used.

Almonds (badam)-

Just a quarter cup of almonds contains nearly 25 percent of your needed daily value of the important nutrient magnesium, plus is rich in potassium, manganese, copper, the antioxidants vitamin E and selenium^[2], and calcium. In fact, a quarter cup of almonds has

How to cite this article: P Dhiman, K Soni, S Singh, Nutritional Value of Dry Fruits and their Vital Significance - A Review, PharmaTutor, 2014, 2(3), 102-108

almost as much calcium as a quarter cup of milk. They're also great for the colon. An animal study on the effects of almonds on colon cancer found that animals (which were exposed to a colon-cancer-causing agent) given whole almonds had fewer signs of colon cancer than animals given almond oil or no almonds. Researchers suspect the benefit may be due to almonds' high fibre content. Plus, almonds are one of the best nuts for lowering cholesterol because 70 percent of the fat they contain is the healthy monounsaturated variety, which has been shown to help clear arteries.

Prunes -

After prunes are washed, they are dehydrated until they become stone-like. This enables them to be stored in this state for up to two years. When there is an order, they are then moisturized (usually blanched with steam) until hydrated enough for packaging. Oil is not a necessary part of preparation since prunes are a large fruit and do not have a tendency to clump together as do other fruits. However, oil might be used as a polishing agent, but then it would be listed with the other ingredients. They would need a hechsher for Pesach since some have an oil coating and because *potassium sorbate* may be used. There can also be a corn-based glucose in the drying process that is problematic for Pesach. It is important to point out that prune juice definitely needs a reliable hechsher.

Apricots (khumani)^[4]-

Apricots are those beautifully orange coloured fruits full of beta-carotene and fibers. Nutrients in apricots can help protect the heart and eyes, as well as provide the disease-fighting effects of fibre. The high beta-carotene content of apricots makes them important heart health foods. Beta-carotene ^[2] helps protect LDL cholesterol from oxidation, which may help prevent heart disease. Apricots contain nutrients such as vitamin A that promote good vision. Vitamin A, a powerful antioxidant,

quenches free radical damage to cells and tissues. Free radical damage can injure the eyes' lenses.

Blueberries-

Antioxidants are thought to protect the body against the damaging effects of free radicals^[2] and the chronic diseases associated with the aging process. Fresh fruits, including blueberries and vegetables contain many of these naturally occurring antioxidants such as Vitamins C and E. Blueberries contain 14 mg of Vitamin C and 0.8 mg Vitamin E per 1 cup of blueberries. In addition, blueberries contain *anthocyanins and phenolics* that can also act as antioxidants. Based on data from the USDA Human Nutrition Research Center on Aging (Boston, MA), blueberries are among the fruits with the highest antioxidant activity.

Peaches (aadru)-

Although fresh, high-quality peaches are sweet tasting, they are low in calories, with one medium peach furnishing only about 37 calories. Yellow-fleshed varieties are a good source of Vitamin A. But, making peach jam or canning peaches in sugar syrup adds calories.

Cashews (kaju)-

Cashews are lower in fat than most nuts, and 65 percent of this fat is unsaturated fatty acids. Of this, 90 percent is oleic acid, the heart-healthy fat found in olive oil and cashews are rich in copper, magnesium, zinc, iron and biotin^[2].

Walnuts (aakhrot)-

Walnut is the great source of the healthy omega-3 essential fatty acids^[5], which have been found to protect the heart, promote better cognitive function, and provide anti-inflammatory benefits for asthma, rheumatoid arthritis, eczema and psoriasis. Walnuts also contain the antioxidant compound *ellaic acid*^[2] which is known to fight cancer and support the immune system. Even researchers have

identified 16 polyphenols in walnuts, including three new tannins, with antioxidant activity so powerful they described it as "remarkable." Walnuts are incredibly healthy for the heart. Total cholesterol and LDL (bad) cholesterol were reduced and the elasticity of the arteries increased by 64 percent. Levels of vascular cell adhesion molecules, which play a major role in reducing the development of atherosclerosis means hardening of the arteries.

Pecans –

These natives to the southern Mississippi River valley are buttery and slightly bittersweet. They're stand-outs in pies, quick breads, cakes, cookies, candies and ice cream. Pecans are an excellent source of over 19 vitamins and minerals including vitamins E and A, folic acid, calcium, magnesium, copper, phosphorus, potassium, manganese, several B vitamins and zinc. Recent clinical research studies evaluating the impact of pecans on serum cholesterol have found pecans can significantly help to lower blood cholesterol when consumed as a part of heart-healthy diet. In fact, a study from New Mexico State University found that eating 3/4 cup of pecans a day may significantly lower LDL (bad) cholesterol and help to clear the arteries.

Pistachios (pista) –

Pistachios have beige shells with nuts that range from dull yellow to deep green. Primarily sold as a snack food, they are easily adaptable to recipes where pecans or other nuts are used. Pistachios are a good source of copper, phosphorus, potassium, magnesium, and B6. The nuts deliver 30 vitamins, minerals, and phytonutrients, so they pack a considerable wallop from a nutritional standpoint. Pistachios contain higher amounts of fibre than many high-fibre foods. Pistachios are an excellent source of dietary fibre. If there is a need to replace animal protein with vegetable protein, pistachios eaten in conjunction with protein-rich grains, vegetables and fruits, can help us to

add protein to our diet. Pistachio nuts are an excellent source of vegetable protein. Oxidative stress can cause damage to the human body, resulting in diseases such as cancer and heart disease. Dietary antioxidants help to reduce the damage. Pistachios contain phenolic compounds^[2], which are believed to account for the antioxidant capability of certain foods. The pistachio nut is placed in the highest group for antioxidants.

Plums (aalu-bukhara)-

Dried Plums are ready-to-eat right from the package as a healthful snack or can be used as a versatile cooking or baking ingredient. They provide potassium, soluble and insoluble fibre, phytochemicals^[2] that function as antioxidants as well as some iron and Vitamin A. Dried Plums/Prunes can play an important role in promoting good digestive health.

Brazil Nuts - :

Brazil nuts only come from magnificent, large trees that grow wild in the Amazon rain forest. Similar to coconut in texture, the sweet, rich meat of Brazil nuts is eaten raw or roasted. These nuts are extremely nutrient-rich and contain protein, copper, niacin, magnesium, fibre, vitamin E and selenium. **Selenium** is a powerful antioxidant that works to neutralize dangerous free radicals. A study at the University of Illinois even found that the high amounts of selenium in Brazil nuts may help prevent breast cancer^[2].

HEALTH BENEFITS OF DRY FRUITS

Raisins have calcium and boron which is considered to be important for bone formation. They are also very good for eye care as they contain oxidant properties and Vitamin A, which protects eye from weakening of vision, macular degeneration and cataract. They also play a vital role in protecting our teeth against cavities, tooth decay and other dental problems. Raisins are thus beneficial for bones, eyes and for

promoting dental health. Cashew nuts also support healthy muscles and gums as they are rich in magnesium and calcium. Pistachios are also very advantageous for eye health because of the presence of **carotenoids** in them. Walnuts contain **omega 3 fatty acids** and that is why is called the "Brain Food" and hence is very important for the development of the brain. Nuts are one of the best plant sources of protein and minerals. They are rich in fibre, phytonutrients and antioxidants such as Vitamin E and selenium. Nuts are also high in plant sterols and fat but mostly monounsaturated and polyunsaturated fats (omega 3 fatty acids- the good fats) which have all been shown to lower LDL cholesterol. Many people were scared away from nuts during the low-fat craze of the last few decades, but now nuts are making a comeback. A study conducted found that eating nuts lowered the risk of heart disease and helped participants to keep their weight down. Other large-scale studies, also found that eating nuts lowered heart disease risk. Other studies have shown that nuts help lower bad "LDL" cholesterol. They are highly concentrated in both their calories and their nutrients, so we only need a small handful at a time. Eating a variety of nuts appears to be the best way to get all the different benefits each nut has to offer.

1. Protection from heart diseases-

Recent medical studies indicate that nuts may play an important role in reducing the risk of heart disease.

2. Decrease in LDL cholesterol-

It appears that a diet high in monounsaturated fats can reduce the level of artery damaging LDL cholesterol ^[1] without lowering HDL "good" cholesterol. Cashews have zero cholesterol level ^[8] and is very advantageous for maintain low cholesterol levels. Pistachios also contain fat and are thus very helpful in lowering high cholesterol levels. Almonds have essential fatty

acids that help in reducing cholesterol and promoting blood circulation. Raisins are the ones loaded with magnesium, potassium, iron and phosphorus and thus promote blood circulation. Consuming cashew nuts, Pistachios, Almonds and Raisins is considered very effective in controlling cholesterol and providing us with a healthy body by promoting blood circulation.

3. Decrease in blood sugar level-

According to the study "Nuts as a replacement for carbohydrates in the diabetic diet" (Diabetes Care, August 2011) two ounces (about 56 grams) of nuts every day can improve glycaemic control and serum lipids in people with type 2 diabetes^[1].

4. Increase in haemoglobin content-

Dry fruits especially almonds are considered to be very effective for improving haemoglobin. Almonds help in the formation of new blood cells and also increase the haemoglobin level in the blood. Unsaturated fats, vitamin B, phosphorus, copper and iron present in nuts helps in the proper functioning of all the crucial organs of our body. Prunes, which are a good source of potassium, Vitamin A, fibre and copper helps in keeping the energy levels high throughout the day. We should carry a handful of prunes in the pocket and munch them all through the day. Cashew nuts possess high concentration of copper and are thus vital in production of energy. They also provide greater flexibility to blood vessels. In fact, eating any dry fruit provides us with an instant supply of energy and also helps us in remaining alert thus enhancing memory improvement.

5. Improves digestion-

Many dry fruits have the ability to treat intestinal disturbances. Raisins, when ingested, swells up as the fibre available in them absorbs the water thereby giving us relief for constipation ^[8]. Pistachios also contain fibre

which helps us to feel riddled for more period of time. It also helps in operating the digestive system normally, hence preventing constipation. Dates are also well known for treating constipation. They are soaked overnight in water and are then consumed in the morning. Soaked dates provides the laxative effect and relieves us from digestion problems. Dates also help in keeping a growth check on pathological organisms, thus giving rise to friendly bacteria in intestines. Almonds can also be consumed every day to improve our digestive system. Walnuts are another dry fruits that help in easing constipation because of their laxative effects.

6. Prevent hair fall-

Almonds are the most important dry fruits when it comes to treat hair problems. Applying almond oil on the scalp has proven to be very effective in curing several hair problems. It helps to prevent hair loss and adds shine and lustre to dull hair. It also promotes hair growth. Apart from this, massaging the scalp with almond oil also helps in relieving us from headache and is considered as the best home remedy to cure headache.

7. Helps in reducing body weight-

The presence of high amount of dietary fibre and high energy density present in Cashew nuts are very effective for weight management. Raisins and Dates are preferred for the ones who are suffering from anaemia as these dry fruits help in weight gain and also provide the person with a lot of vitamins and minerals.

8. Controls signs of ageing-

Raisins contain resveratrol which is a type of antioxidant that helps to keep our skin beautiful by slowing down skin ageing. Walnuts contain high content of ***Omega 3 fatty acids***^[8] that are known to nourish dry skin and to improve its texture. A mixture of walnuts and 3 tablespoons of yogurt can be blend and applied on our face

to get soft and smooth skin. Also, walnut oil has linoleic acid that prevents fine lines and wrinkles. Cashews are also used in a number of cosmetic products to prevent skin damage and to reduce tan. Cashew nut oil is used to protect cracked heels by nourishing them. Vitamin E present in Pistachios is very effective as it protects our skin from premature aging and UV rays. Pistachio oil has demulcent and antioxidant properties and it also contains ***carotenoids, zeaxanthin*** and lutein which help to smoothen our skin and neutralize free radicals, thereby preventing ageing.

9. Helps in stabilizing blood pressure-

Almonds help to lower blood pressure to a great extent. Raisins helps to neutralize the acids present in blood and thus helps to check acidosis because of the presence of magnesium and potassium in it. Pistachios also help a lot in stabilizing the blood pressure and blood sugar levels according to a study performed by The University of Toronto.

10. Significance of dry fruits-

Dry fruits are small but are extremely rich sources of minerals and proteins. Every diet specialist always recommends a handful of dry fruits in our diet in order to keep us healthy and fit. There are just umpteen varieties in dry fruits such as raisins, cashew nuts, almonds, pistachios, walnuts, dates and the list goes on. Dry fruits possess a lot of medicinal properties because of the ample amount of nutrients that are present in them. Though the dry fruits are really expensive and are regarded as delicacies but the health benefits that they possess makes them worth their price. This article consists of the top ten health benefits that different dry fruits have and therefore the reasons to include dry fruits in our diet if we want to stay healthy and sound. However, we must put some restrictions on the amount of intake of dry fruits as excess of anything can be harmful. Dried fruits are a nutrient-dense food and a

particularly good source of dietary fibre, potassium and phenolic compounds, which are linked to a number of health benefits, including decreased risk of heart disease, diabetes and certain types of cancer. Dried fruits provide the same amount of fibre as fresh fruit. One tablespoon of raisins contains the same fibre as 27 grapes, can prevent digestive disorders and can be included in the recommended five-a-day fruit and vegetable intake. Scientific research has shown that raisins are a concentrated source of antioxidants that contribute to prevent the growth of bacteria that cause inflammation and gum disease. Consumption of certain dried fruits have shown to have important health benefits, such as improving laxation, reducing serum cholesterol, and reducing the risk of osteoporosis. Prunes have been found to increase bone density. Recent research in postmenopausal women showed that consumption of dried plums was linked increased bone mineral density, which may prevent the development of osteoporosis. Consumption of dried fruits is an effective way to increase overall intake of fruits and vegetables.

DRIED FRUIT WARNING

The key with nuts is simply not to over-eat them. Prunes and Pears Found to Contain High Levels of **Acrylamide** ^[3] chemicals- A carcinogenic chemical found in starchy foods cooked at high heat is also found in high quantities in dried fruit, according to a new study conducted by researchers at the Swiss Federal Institute of Technology and presented at a symposium on the chemical that took place in Boston.

1. Weight Gain:

The small portion size of dried fruit makes it easy to overdo it. It takes an excess of 3,500 calories in your diet to gain 1 pound, explains MayoClinic.com. Consumption of extra dry fruits adds an additional 250 calories per day

from dried fruit, which contribute to as much as 2 pounds of weight gain in a single month time span. So, it is good to serve dry fruits in portions before start eating them, to minimize the caloric intake. Single servings could include eight apricot halves, three dates, 2 tablespoons of dried cranberries or blueberries, 1 1/2 dried fig or three prunes. Each of these servings provides about 60 calories.

2. Digestion related problems:

Dried fruits are high in fibre, which is good to improve regularity of bowel movement, but too much fibre affect gut, particularly if, one do not consume high-fibre foods. Dried fruits may cause one to have gas, abdominal cramping, bloating, constipation and sometimes diarrhoea. So it is advisable, to avoid these negative effects by keeping the dried fruit intake to a small amount each day or divide portion into two separate servings. If one needs to boost his/her fibre intake, slowly increase it over a period of few weeks. Take an extra one or two pieces of dried fruit every couple of days, within tolerance, until one is able to digest a full serving without having gastrointestinal related problems.

3. Sugar Crash:

Some dried fruits, especially sugar-coated varieties, are high on the glycemic index. This scale rates dry fruits foods from 1 to 100. Foods with a high glycemic index rating cause blood sugar to boost, making one feel quickly energized. Unfortunately, once one hit the energy peak, blood sugar quickly drops and the person may experience a sugar crash or sudden fatigue. Raisins are somewhat high on the glycemic index scale, having a rating of 64, according to Harvard Medical School. Dates are right in the middle of the glycemic index ^[9]. Prunes are one of the few dried fruits that have a low glycemic index rating. This type of dried fruit has a rating of 29 on the scale.

4. Tooth Decay:

Dried fruits have natural fruit sugar in the form of fructose. Some types of dried fruits are coated in additional sugar to keep moisture levels to a minimum and to prevent the dried fruit from sticking to each other. Sugar is one of the main contributors to tooth decay as they

stick to the teeth, forcing the sugar to stay on the teeth for a longer period of time. Risk of tooth decay can be minimised by drinking water while snacking on dried fruit. Brush and floss the teeth as soon as possible after snacking with dry fruits, to remove the sugar from the surface of the teeth.

↓ REFERENCES

1. nutfruit.org/en/did-you-know-that-br-tips-facts-and-myths-of-nuts-and-dried-fruits_44774
2. casadefruta.com/healthy-fruit-nuts.php
3. naturalnews.com/dried_fruit.html#ixzz2qeLykolp
4. indif.com/Food/refer/glossary/dry.asp
5. seedhieximpal.com/dry-fruits.htm
6. agriculturalproductsindia.com/dry-fruits-nuts/dryfruits-brazil-nut.html
7. en.wikipedia.org/wiki/Brazil_nut
8. listdose.com/top-10-health-benefits-of-eating-dry-fruits-rtr/
9. healthyeating.sfgate.com/disadvantages-dried-fruit-3227.html