

Appropriate Patterns of Bread Preparation and Consumption According To Teachings of the Quran, Ahadith, and Persian Medicine

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Abstract

Background and Objectives: Historically, bread has been the most important source of human nutrition. The pattern of bread consumption is not desirable in Iran and approximately 16% of bread produced in this country is wasted. The most important cause of this waste rate is low quality of the produced bread and inadequate public attention paid to Islam recommendation on bread sanctity. The modification of bread consumption and the culture of bread consumption are one of the necessities of the community. Islam whose teachings include all aspects of human life assigns a special status to bread. In addition, in Persian medicine that was developed by Islamic teachings special attention is paid to bread.

Methods: To conduct this research review, discussions about bread in Quran, Ahadith, and Persian medicine textbooks were studied. Besides that, the findings of most recent scientific sources and reliable articles were investigated.

Results: According to Islamic and Persian medicine references, bread is divided into different types according to type of cereals and some legumes, amount of bran, type of dough, percentage of fermentation, baking method, shape and thickness of bread, and materials added to bread. A suitable bread is made from high quality wheat, its bran is not separated in large amounts, salt and dough are used in preparing it, it is fermented in a balanced manner, and all of its parts are uniformly baked in oven. In addition to preparation method, there is a certain pattern of using bread according to Persian medicine and Ahadith.

Conclusion: A bread that is prepared and used according to instructions described in Iranian Islamic medicine can satisfy a wide range of the body's nutritional needs.

Keywords: Persian Medicine, Islamic, Iranian, Bread.

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Introduction

The Prophet Muhammad (PBUH) says: Your best food is bread (1). All around the world, bread is considered a main food, and also in Iran, it is one of the main sources of daily food pattern of the community (2). Bread satisfies most energy and protein-related needs of the body such that approximately 32% of the received energy and 36% of the consumed protein in urban households as well as around 38% of the received energy and 45% of the consumed protein in rural households are satisfied by bread. Compared to meat or milk, bread is a more compact source of energy. In other words, 247 kcal energy is produced per 100 g bread, while to provide this amount of energy, 190 g (approximately two times) meat and 370 ml milk (around 4 times) should be consumed (3).

Across the world, different cereals are used to prepare food, but wheat is mainly used for this purpose. To prepare bread, wheat undergoes three steps: Pulverization, impasting, and baking. The ingredients of bread, including flour, water, salt, and yeast as well as its volume and size, appearance, and preparation method all affect its quality. Certain additives such as oil, milk, and different types of sweets significantly affect bread's health and quality. Nowadays, for greater durability, customer-friendliness, and other economic reasons, certain changes are made to the bread preparation process, some of which affect the health of bread consumers and are predisposing to serious illnesses (4). Separating bran from wheat completely (5) and whitening flour using white alum in some factories (6), and using

Barley yeast or baking soda in the fermentation of bread instead of traditional sour dough (4) are some of these changes. In addition to the current drawbacks in preparing bread, the pattern of its use is not appropriate as well. Wasting large amounts of bread and tending to eat white bread and put bread together with all foods are some of the problems related to the pattern of bread use. Although low quality is a reason for wasting large amounts of bread, we should also take into account disregarding the recommendations of Islam on respecting bread and preventing its waste.

The high average per capita consumption of bread in Iran (7) compared to the world average and the accurate and intelligent view of Islam into bread as the main source of food and the role of food in maintaining health or the development of various diseases, we were encouraged to conduct this review for compiling and rereading reliable and old Persian medical textbooks and medical Ahadith on bread.

Methods

To conduct this review, key Islamic and medical references consisting of the Holy Quran, Ayatollah Makarem Shirazi's Nemooneh Interpretation, Majlesi's Beharolanvar, Mohammadi Reyshahri's Encyclopedia of Medical Hadiths, Ferdows-ul-Hikmah (4th century A.H.), Avicenna's the Cannon of Medicine (5th century A.H.), Seyed Esmaeel Jorjani's Zakhire Khwarizmshahi (6th Century A.H.), Ibn-Nafis's Al-Mujaz Fi Al-Tibb (7th century A.H.) and Al-Shamil fi al-Tibb (7th century A.H.), Aghili Khorasani's Kholase al-hekmah (12th century, A.H.) and Makhzan ul-adviyah (12th century) as well as materials regarding bread, different types of breads, and the methods of its use and preparation in two Persian language dictionaries, Nafisi and Anjoman Ara Naseri, were used. Besides that, modern scientific sources such as Krause's Food and the Nutrition Care Process and the articles on side effects due to inappropriate preparation as and use of current breads indexed in electronic databases such as PubMed and Google Scholar were used.

Result

In the textbooks on Persian medicine, Arabic equivalent of bread, "khubz", has been used (8). In the Holy Quran, "khubz" has been used only once [in Story of Prophet Yusuf (PBUH)] (9) where the discussion is not related to bread, but in some parts of the Holy Quran, the word "habbah", meaning grain has been interpreted, in some interpretations, as wheat and barley grain, and in some others, as other seeds. According to relevant textbooks, the flours of different types of cereals and certain beans such as wheat, barley, rice, peas, millet, and occasionally proso millet and oak have been reported to be used to prepare bread. Because the Holy Quran has not mentioned wheat and barley explicitly, this book has not attributed any benefit to one over the other. Referring to . Ahadith and textbooks on Persian medicine, we found two inconsistent approaches. According to the first approach, . Ahadith attributed certain benefits to barley bread over wheat bread. Imam Reza (PBUH) states: The grace of barley bread over wheat barley likens our grace over other people. There has been no prophet, except that he has invited to eat barley bread and blessed the barley and it has entered no body, except that it has removed any pain from it (1).

A Hadith of the sixth Imam states: Prophet Muhammad (PBUH) has never eaten wheat bread and has never become full with barley bread (1).

In contrast, in the second approach, according to medical textbooks, ancient people have considered the bread prepared from wheat to be the best food for human and referred to it as best bread for certain reasons including the fact that wheat is close to moderation in terms of quadratic qualities and moreover, its nature has high alimentariness and is therefore considered alimental, and is highly appropriate for human blood's nature compared to the other seeds (10).

Barley bread has lower alimentariness than wheat bread. It is dry and dryer, cools the body, and causes bloat and colic. Barley bread superiority to wheat bread is likely to be due to barley-specific pharmaceutical properties or

the special conditions of the prophets that required them to eat barley bread.

In Ahadith, two other types of bread have been also referred to: Rice bread and millet bread. Ahadith have recommended to feed the people with tuberculosis and diarrhea with rice bread (1). Consuming millet bread with milk has been considered appropriate for the body (11). According to Persian medicine, the corrector of all types of breads except for wheat bread is sweet and oil, but eating sweet and oil with wheat bread, according to Persian medicine, causes obstruction and stone. Ahadith show that the Prophet Muhammad and Imams, who consumed barley bread, ate it with date and olive (sweet and oil). An Imam Sadiq (PBUH)'s cited tradition states: The food of the Prophet Muhammad (PBUH) was barley bread, whose sweet was date, and whose bread stew was olive oil (1).

According to Persian medicine textbooks, the wheat used to prepare bread should be preferably big, heavy (solid), whitish-red, and pest-free, and also its bran should be separated in moderate amounts. In baking bread, salt and dough should be used in addition to flour and water (8,10).

Imam Ali (PBUH) asked his servants about dough fermentation and stated: That (fermentation) increases bread (1). The reasons for using dough in preparing bread are making the bread mass delicate and diluting its consistency via the heat in the dough. Making bread's nature delicate means fermentation. This facilitates bread's gastric digestion and ultimately introduction of its ingredients into the arteries. In addition, salt helps to further digest and absorb the bread and increase its penetration (10).

Besides that, Persian medicine emphasizes that using salt is preferable to using borax and natron, because these two substances cause the bread to exit from human's humor and lose its adequate quality for his health. Borax contains a type of salt containing boron that was used in ice cream industry for whitening and bulking ice cream for many years, and then its use was banned by the WHO (12).

In some dictionaries such as Dehkhoda Dictionary, natron means a type of boron, and

according to certain references such as Wikipedia, it is equivalent to sodium carbonate or baking soda. Interestingly, in old textbooks, using baking soda and borax is discouraged because they argue that borax and natron has a different quality from that of human's humor and nature (According to modern scientific sources, the stomach environment is acidic but baking soda is an alkaline substance that is effective in decreasing the effects of the stomach's acid (13,14), while the dough is the same as the bread's nature that becomes sour when it is left and therefore approximately for human body's nature (becoming sour means becoming acidic and therefore appropriate for the stomach's acidic environment. It is therefore more advisable to use dough for making the bread delicate rather than other spices (10). It is interesting that ahadith have mentioned eating vinegar with bread that can be due to its agreeability to the stomach's acidic environment.

According to ahadith, Imam Ali (PBUH) was the most similar man to the Prophet Muhammad in eating bread and vinegar and olive oil (1), and fed people with bread and meat.

Besides that, ahadith have mentioned eating bread with meat (1). In the textbooks on Persian medicine, meat has been considered the best food to be eaten with bread (10).

A unique issue that has been frequently emphasized in Ahadith is the sanctity of bread. The Prophet Muhammad states: Lest you smell the bread as the pestilent smell it because bread is blessed, God, the Almighty and Everlasting frequently sent rain from the sky and raised it (1). Due to it you can pray and due to it you can fast and due to it you can pilgrimage your Lord's House. Imam Ali states: Extract the bread. Verily, Allah the Beloved and exalted, sent the blessings of heaven and removed the blessings of the earth (15).

Imam Sadiq (PBUH) forbade putting bread loaf under the bowl, and states: Respecting bread includes not waiting for another food when the bread is brought [for you to eat], not trampling it, and not taking it [out] (1). The Prophet Muhammad states: Take out small

slices of bread [for eating] as a separate blessing accompanies each slice of bread (1).

Different types of bread in textbooks on Persian medicine (8,10,16)

A. Different types of bread according to baking methods

1. Oven or forn bread that is baked in ovens or forn in cities and villages;

2. Tabegh bread that is baked on saj (a kind of metallic board on which dough is spread dough) by nomads in the deserts; and

3. Mellah bread that is baked on warm ash and stone by nomads in the deserts.

Mellah bread is not considered a good bread because its loaf is big and is directly exposed to the fire heat. This method of baking causes the surface of the bread that has contact with the fire to bake quickly and the inside of the bread remains unbaked. This rawness is predisposing to different types of obstructions in the body's arteries and tracts (10).

The tabegh bread is not also considered a good bread because the surface that is put on the teak (saj) is baked more quickly and better than the surface in contact with cool air. However, because the Tabegh bread is prepared using a comparatively thinner loaf compared to the Mellah bread, it is less harmful.

Because fire is lit under the bread in the forn, the forn is similar to the saj such that the surface of the bread that binds to the forn's wall is further heated and baked; and the other surface is less heated because it is in contact with comparatively lower temperature than the wall, leading to lack of uniform baking of the two surfaces. Because fire is lit inside the oven, the internal temperature dramatically increases and there is no considerable temperature difference between the oven's wall and the internal air; therefore, the bread surface in contact with the oven's wall is heated approximately equally to the other surface, and the two surfaces are baked uniformly. Therefore, the bread that is baked in the oven is considered the best bread.

Hakim Aghili Khorasani, in Makhzan ol-Adviya, has considered forn and oven breads to be the same, and indeed offered similar definitions for forn and oven, and divided oven

bread into three types according to composition and shape: Komaj, kasmat, and sangak. To prepare komaj and kasmat breads, the flour was previously impasted with pea water.

According to Persian medicine, pea water has certain properties that cause fast emptying of the stomach. The dough of these two types of the breads (komaj and kasmat) is well-fermented and light and is digested quickly. Oil and sweet are also added to komaj bread composition. Sangak bread dough is more diluted and less-fermented than the dough of the other two types.

Table 1. Different types of bread according to baking methods

Oven bread	bread baked in oven	<i>komaj</i> bread	Its flour impasted with chickpea water, Oil and sweet are also added.
		<i>kasmat</i> bread	Its flour impasted with chickpea water.
		<i>Sangak</i> bread	Its dough is more diluted and less-fermented than other type of Oven bread.
<i>Forn</i> bread	The bread baked in the <i>forn</i>		
<i>Tabegh</i> bread	bread baked on <i>saj</i> The		
<i>Mellah</i> bread	The bread is baked on warm ash and stone		

B. Different types of breads according to loaf thickness

Raqaq refers to a quite thin bread. This type of bread is dried in oven or forn due to thinness and is therefore both dry and dryer and has comparatively less alimentariness. If raqaq is taken out of the oven quickly to prevent its drying, it remains unbaked and difficult to digest. Therefore, bread loaf should not be very thin because it either is burned or remains raw. Conversely, if bread loaf is taken very large, or in other words the bread is very thick, the inside of the bread remains unbaked because the air of oven or forn cannot reach it. Therefore, it is better to take bread loafs in average size (10).

C. Different types of breads according to their shapes

In Persain medicine, the shape of bread has been also taken into account. The middle of the bread that is baked in the oven should be thin and its edge should be thick, because the edge of the bread is more affected by the fire heat. Therefore, a number of holes are created in the middle of the bread so that it is cooked well.

These holes cause increase in the surface of the bread central parts in contact with the heat.

If the overall shape of the bread has angle, the angled part burns and it is therefore better for bread to be in the form of circle. A very interesting point to note is that the oven's fire is often a bit lower, and since the natural path of hot air movement is always upward, not to the right and to the left, the bread dough length that is in the direction of hot air movement should be larger than its width. In addition, the side of the dough that is exposed to oven fire is more heated and the other side is less heated; therefore, the part of the that goes towards the fire is taken thicker than the other part and eventually the bread shape becomes triangular looking like modern sangak bread.

D. Different types of bread according to wheat types

1. The bread prepared from dry wheat containing low amounts of water is thinning. This type of bread should be immediately eaten by after baking and cooling, because if it is not eaten immediately, it loses further moisture and becomes undesirable to nature.

2. According to the fundamentals of Persian traditional medicine, the bread that is produced from moist wheat (not wet but rather fresh, big, and fat seeds) is fattening.

Bread should never be eaten immediately after baking as it is still hot because hot bread gives out certain steams that go up in the stomach, pierce the mouth of the stomach, and cause a feeling of discomfort. This condition is so-called karab.

E. Different types of bread according to the amount of bran in bread flour

1. The bread that excessive amounts of the bran of its flour have been separated (as with the white flour used for baking cakes) is called samidh or samid or mideh;

2. The bread that the bran of its flour has been separated but not in excessive amounts is called hawari; and

3. The bread that is produced from unwashed wheat whose bran has not been separated is called khoshkar.

F. Different types of bread according to the fermentation percentage of their dough

1. The bread whose dough has not been fermented is called fatir;

2. The bread produced from moderately fermented dough is called mokhtamar (fermented) that is the best bread; and

3. The bread that is produced from pure dough is called Mohammadh.

The natures and effects of different types of breads in the body

A. Tabegh bread is dry and dryer;

B. Mellah bread has a burnt and dry appearance and a moist, raw, and thick interior; therefore, it is a thick food (its digestion takes a long time) and causes obstruction and stone;

C. Fatir bread is colder than the fermented bread, tends to be moist, and is phlegmatic; and

D. Hawari bread is colder than the bread produced from unwashed wheat because it is produced from washed wheat (any external quality imposed on the bread makes it far from its main nature and lowers its nutritional value).

Hawari and samid breads are alimantal and pass quickly through the stomach, but cause hepatic obstruction, kidney stone, and constipation. To correct them, first, greater amounts of dough should be used and secondly, the bread should be eaten with bazoori oxymel (celery seeds, melon seeds, sugar and vinegar)

E. Khoshkar bread: Because the bran of its wheat has not been separated, khoshkar bread is quickly evacuated from the stomach; and because it contains low amounts of nutrients and dryer, it is soda-generating, causes hemorrhoids, itching, face thinness, and premature ageing, and weakens the body. The corrector of khoshkar bread is sweet, oil, and freshly milked milk.

F. Shirmal bread (panada) is a bread that is produced from milk and oil and moderately baked, it is very nutritious and can be rubbed with the grape juice, sugar syrup, or egg yolk. To prevent obstruction, fennel, bacon, and cumin are sprinkled on it. Peeled sesame is also sprinkled on it to increase its alimantariness. In Makhzan ul-adviyah, panada has been mentioned as the best bread;

G. Qataef bread is the hawari bread to which oil is added. Adding oil causes increase in its

density and hardens its digestion. To make it delicate, increase the speed of its passing, and prevent bloat due to it, qataef bread should be eaten with honey;

H. Taboun bread is the same as samid bread, except that oil is added to its dough; despite being alimantal, this type of bread is digested lately.

The properties of bread according to the time of eating

A. If the bread is eaten as it is warm and fresh (not very hot), it will warm up the body and dry the stomach's moisture;

B. If the bread is eaten as it is cool, the body's moisture increases;

C. If the bread is eaten as it is still fresh, it is fattening, nourishing, and passes quickly through the stomach; and

D. Dried bread is digested lately and thinning (the body dryer) and causes thirst (10).

Traditional medicine recommendations on bread use

In traditional medicine, there are general principles regarding bread use as follows:

1. Healthy bread is a good food, but continuing to eat only one type of food is forbidden according to Persian medicine (17); in other words, one meal can include bread and stew, one meal can include different types of pastries without any bread, and another meal can include rice;

2. Bread should not be eaten alone and is recommended to be eaten with a stew. Meat is the best food to be eaten with bread. Eating bread with meat is much more useful than eating either alone (8,16);

3. If eaten with sweet, wheat bread causes obstruction in the body;

4. Eating bread with juicy fruits is forbidden for two reasons: First, juicy fruit boils, or as described in traditional medicine, seethes in the stomach's environment. If the bread enters such environment, it is not digested appropriately; secondly, because fruit passes quickly through the stomach, it causes the bread that is simultaneously eaten to exit from the stomach as the bread has not yet undergone all steps of the digestion. The undigested bread enters the arteries and can cause obstruction. Besides

that, such substances can be converted into phlegm if they enter the liver (10);

5. Bread should not be eaten as it is still very hot because the moisture of such bread goes up after it enters the stomach, and causes a feeling of fullness and bothers the mouth of the stomach after reaching this area (10);

6. Dinking cold water immediately after eating bread has been forbidden (10) [More specifically, drinking cold water after eating any food has been forbidden; however, this recommendation has been also emphasized separately regarding bread (17)].

Pharmaceutical uses of bread

In references on Persian medicine, in addition to nutritional value of bread, pharmaceutical uses of this food, alone or in combination with other substances, have been mentioned as follows:

Chewing bread removes teeth bluntness;

Impasted bread is effective in relieving the body's edemas;

The combination of bread, water, and salt eliminates dandruff if put on the head;

Eating the bread on which poppy seeds have been sprinkled is hypnotic and body-cooling;

Eating the bread on which cumin has been sprinkled is body-drying, obstruction-removing, and flatus and bloat-relieving; and

Eating the bread on which fenugreek and black seeds have been sprinkled is appetizing (10).

Using bread to treat fever: A food called maghsoul (washed) was mentioned in textbooks that is prepared by this recipe:

Pour warm water in a container of the slices of stale wheat bread so that the slices are submerged. After the slices were completely soaked and puff, the container's content has two surfaces; empty the upper surface that contains water and an amount of bread suspended in water and again pour warm water on the rest of the soaked slices; repeat this procedure several times; finally, mix what has remained in the bottom of the container with sugar. This food can be used as alternative to barley singed flour for febrile patients, because in addition to cooling the body, it is not flatulent in contrast to barley singed flour.

Discussion

Serving as a main food, bread is highly important to gain energy and survive. From the perspective of Persian medicine, healthy, mahmoud, or jayyed bread is produced from ripe, solid, big, fresh, and moderately-colored (whitish-red) wheat. Therefore, some factories put wheat under certain processes for whitening that does not seem to be completely faultless.

In contrast to public opinion according to which large amount of bran is considered the reason for enhanced quality of bread, according to Persian medicine, bran should be separated from the wheat in moderate amounts; and a bread is considered jayyed and mahmoud if it is fermented with common traditional dough (the dough obtained from the remaining flour paste and cooked with moderate heat in oven; and the size of loaf should be neither big nor small rather average (10).

Taken together, the shape of modern sangak is bread the best shape for bread dough to be put in the oven for cooking. This bread, with regards to above characteristics, can be an appropriate food and produce righteous blood if used with appropriate measures (10).

The people with moist temperament who seek to increase their bodies dryness should consume khoshkar bread as it is dry and non-fresh. For people who seek to increase their bodies moisture, or in other words, become fat, shirmal bread is suitable. To remove obstruction, special spices should be sprinkled on the bread. If one is predisposed to obstruction, he is recommended to eat bazoori oxymel with the bread or three hours before eating it (10). Nowadays, different types of breads are commercially available, including sangak, tafton, lavash, barbari, and white baguette breads as well as different types of local breads. To discover the properties of these breads, we need to compare them with the breads mentioned in the textbooks on Persian medicine.

For example, some sangak breads currently available in the market only carry this name and are not similar to the sangak bread mentioned in old textbooks, because they are produced from white flour and factory-made

dough or unfortunately baking soda, instead of sour dough, and are occasionally baked mechanically rather than in the oven, while a good sangak bread is baked in the oven with observance of the above-mentioned conditions, the bran of its flour is separated in moderate amounts, and sour dough is used to prepare its paste.

Besides that, in contrast to the public opinions according to which sangak bread is better than all other types of breads, in Persian medicine did not consider this type of bread the best one because its dough was less fermented than other oven breads in the past (8). Barbari bread serves as oven breads and is therefore suitable to eat if its dough has not been prepared from white flour and has been baked in oven.

This also applies to tafton bread; if it is baked in oven, it serves as oven bread, and if it is baked on the turning pages under which the heat is lit, it is the same as tabegh bread. Lavash bread is the same as tabegh bread due to its cooking method, and is not to therefore a good bread especially because baking soda is also used in cooking it.

White bread (baguette, toast) is equivalent to samid bread or midah bread if common dough is used in producing it; otherwise, this type of bread cannot be classified as one type of the breads mentioned in Persian medicine. The bread that is baked in cooked bakeries is recommended to be produced from flour with bran, water, oil, and sugar, and is equivalent to shirmal bread. If sweet or date is added to this bread, it can be equal to qataef bread. If its flour is white and its bran is completely separated and baked with oil, it is equal to taboun bread.

Local bread is equal to oven bread if baked in the oven, and tabegh bread if baked on saj or tray.

Conclusion

Taken together, the best bread nowadays is produced from the flour that has not been whitened artificially, its bran has been separated in moderate quantities, its dough has been prepared from common flour paste and salt, and has been baked in the oven. It seems that according to the

references on Persian medicine, the most suitable breads commercially available are tafton and local oven breads followed by sangak bread baked in oven. With regards to the current conditions, the measures below are recommended to improve the conditions of bread:

1. Designing certain programs for training people on selecting the best bread and complications due to continuous use of bran-free flour, fatir bread, and unsuitable breads;

2. Acculturating people to observe the rituals of using bread according to Iranian Islamic medicine;

3. Training bakers regarding the characteristics of healthy breads and appropriate methods of baking bread;

4. Amending the wrong belief according to which salt-free bread is assumed healthy;

5. Justifying and encouraging officials to provide facilities of producing healthy bread according to appropriate method and using oven, and replacing machinery bakery equipment with oven; and

6. Training the correctors of samid, hawari, etc. breads and associated measures when it is not possible to produce healthy bread or because of the community' culture emphasizing use of fatir breads or the breads produced from white flour.

Conflict of interest

The authors declare no conflict of interest.

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No

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