



Ethiopia:

Food-Based Dietary Guidelines Booklet–2022



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Choose Healthy Dietary & Lifestyle Practices

March 2022

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What is the Booklet For?

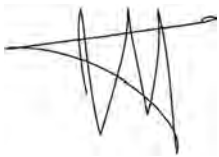
This booklet tells you how to use the Food-Based Dietary Guidelines (FBDGs) to eat healthy food and practice a healthy lifestyle. It has proven science-based information about what people should eat and not eat and how this affects their health.

Eating better may not make you feel different all at once, but it may make it less likely that you will be affected by diet-related diseases, which can strike people when they are older. These diseases include diabetes, cancer, hypertension, and being overweight/obese, which are emerging diet-related problems globally including for Ethiopians.

The aim of this booklet is to enable the people of Ethiopia to choose the right foods and beverages for maximum health. The facts included in it are based on dietary gap analysis from studies done in Ethiopia. The information is organized in a very simple way to enable you and your family to eat healthy foods in a sustainable way. Please note that it is never too early, or too late, to begin.

Within this FBDGs booklet, there are 11 key messages which inform the public about the benefits of each food group for the body and the healthy eating lifestyle that can be practiced in eating each of the foods. Out of the 11 public messages described in the booklet, the first seven encourage consumers to implement healthier dietary practices and the last four advise limiting certain food groups to stay healthy.

We hope the key messages and explanatory tips provided in this booklet will assist you to promote the use of appropriate nutrition and healthy lifestyle.



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Key Messages for Healthy Diet and Lifestyle

Key message 1: Diversify your diet by selecting from at least 4 food groups in every meal and 6 food groups every day

What does a diverse variety of foods mean and how much should we eat?







- A diverse diet means a plate with at least 4 food groups in every meal and 6 different food groups every day
- A varied diet should provide the required amount of nutrients necessary for good health
- Different food groups must be added to the main dish to vary a diet

Box 1: Food groups and variety of foods in brief

- Other than in pastoralist areas, the major Ethiopian diet is plant-based, consisting mainly of grains, root and tuber group. Depending on the food culture, the common foods we eat from this 1st group are injera, bread, kocho, and kolo.
- The 2nd food group is pulses and legumes such as peas, lentils used to prepare stews such as lentil stew and pea-flour stew – shiro wot – to which other food groups mentioned below are added.
- Nuts such as groundnuts in kolo served as a snack, and oilseeds such as sesame and flax seeds commonly used especially during fasting periods make the 3rd group.
- Besides the legume-based stews above, stews can be prepared from different types of meat (chicken, beef, fish) in the 4th group. Milk and yoghurt also belong to this group.
- Vegetables, prepared as stew or salad, and fruits such as bananas, oranges and avocados make the 5th group.
- Fats and oils are added to stews and other foods to make them tasty. This comprises the 6th food group.
- Water is very vital for good health.

Draw from the food groups as recommended in the Food Guide, observing moderation, variety and balance. For good health, drink a minimum of eight large glasses of water daily, complemented with daily physical exercise.

Which of the pictures reflect diverse plate?

	
<p>A. A plate with two food groups: injera, bread (cereal) + shiro (legume)</p>	<p>B. A plate with three food groups: injera, bread, (cereal) + shiro (legume) + kale/atikilt alicha (vegetable)</p>
	
<p>C. A plate with four food groups: injera, bread (cereal) + shiro (legume) + vegetables+ cottage cheese</p>	<p>D. A plate with five food groups: injera, bread (cereal) + shiro (legume) + kale (vegetables) + egg (ASF group) + banana (fruit)</p>
	
<p>E. A plate with two food groups: maize porridge (cereal) + sauce (hot pepper and oil)</p>	<p>F. A plate with three food groups: spaghetti with tomato sauce (cereal) + tomato (vegetable)+ oil</p>

Note: A plate may have 4–5 different food items, but if they are from the same group, they count as one food group. Hence, it is important to select food items from different food groups

How much should we eat from the cereal subgroup?

- One servings of cereals subgroup is equals to 1 medium size injera or 1 ½ pieces of bread.
- The minimum recommended intake of cereals for younger children (2–5years) is 2–3 servings per day. This increases to 2–4 servings per day for adolescents (6–18 years). For adults (19–64 years) and the elderly (65+ years), it is 3–4 servings per day.
- The minimum recommended intake of cereals for intermittent and continuous fasting is 3–4 servings per day.

Table 1: Minimum recommended number of servings of cereal based foods per day

	Servings per day			
	2–5 years	6–18 years	19–64 years	65+ years
Non-fasting	2–3	2–4	3–4	3–4
Intermittent fasting	*	3–4	3–4	3–4
Continuous fasting	*	3–4	3–4	3–4

*Not applicable

Commonly consumed cereals depicted in grams

1 medium-sized teff injera (only) = 310 g	1 medium-sized homemade bread = 100 g	1 medium-sized commercial bread = 110 g
		

Tips

- The more food groups you eat from, the better your health
 - Use the ‘food graphic’ to help you make healthy choices
 - Foods that do not appear in the food graphic should be eaten sparingly
 - Vary your food as much as possible per meal, during the day and across the week

Key message 2: Every day, eat 80–120 grams of legumes such as beans, chickpeas, peas or lentils



Why are legumes important and how much of them should we eat?

- Legumes such as beans, chickpeas and lentils are very good sources of proteins and other nutrients
- Consuming legumes lowers BMI, slows weight gain over time and decreases occurrence of CVD and T2DM

Tips

- Most legumes such as beans and peas contain anti-nutrients which makes them difficult to digest. These are eliminated or reduced by soaking, letting them to grow sprouts or boiling.
- Soaking overnight also reduces cooking time and saves you fuel
- When you eat grass peas (guaya), process them appropriately by well-known techniques such as soaking, roasting and dehulling

How much should we eat from the legume food group?


- One servings of legume food subgroup is equivalent with 1 medium sized scoop of shiro stew.
- The minimum recommended intake of legumes for young children (2–5years) is 1 serving a day. This increases to 1–2 servings per day for adolescents (6–18years), adults (19–64 years) and the elderly (65+ years).
- The minimum recommended intake of legumes for intermittent fasting is 1–2 servings per day and 2–3 servings per day for continuous fasting.

Table 2: Minimum recommended daily servings of legumes per day

	Servings per day			
	2–5 years	6–18 years	19–64 years	65+ years
Non-fasting	1	1–2	1–2	1–2
Intermittent fasting	*	1–2	1–2	1–2
Continuous fasting	*	2–3	2–3	2–3

*Not applicable

Commonly consumed legumes depicted in grams

1 medium ladle shiro stew = 100 g	1 average adult handful (efign in Amharic) of roasted beans (qollo)=30 g	1 medium ladle lentil stew = 125 g	1 average adult handful (efign in Amharic) of germinated beans (beqolt) = 45 g
			

Key message 3: Eat 100–200 grams of various fruits and vegetables of different colours every day, such as bananas, papayas, kale, carrots and tomatoes



Why are fruits and vegetables important and how much of them should we eat?

- Fruits and vegetables are rich sources of micronutrients (vitamins, minerals, antioxidants) and dietary fibre, vital for your health.
- The amount of micronutrients in fruits and vegetables varies according to the type of vegetable or fruit:
 - Deep-coloured F&Vs such as orange-fleshed sweet potatoes, carrots, mangoes and papaya are excellent sources of pro-vitamin A carotenoids, needed for healthy vision and fighting infections.
 - Dark green vegetables such as kale and Swiss chards provide folate and vitamin A.

Tips

Make fruits and vegetables part of your daily meal

- Choose fruits and vegetables that are fresh and in season
- Wash your fruits and vegetables with clean water
- Avoid overcooking vegetables; you lose vitamins
- Use and promote locally available underutilized and nutrient-dense foods

How much should we eat from the fruits subgroup?










- One servings of fruits food subgroup is equals to 1 medium banana or 1 medium mango.
- The minimum recommended intake of fruits for younger children (2–5years) is 1–2 servings per day. This increases to 1–2 servings per day for adolescents (6–18 years). The serving size for adults (19–64 years) increases to 2–3 servings per day. For the elderly (65+ years), it is 1–2 servings per day.
- The minimum recommended intake of fruits for intermittent and continuous fasting is 2–3 servings per day.

Table 3: Minimum recommended number of fruit servings per day

	Servings per day			
	2–5 years	6–18 years	19–64 years	65+ years
Non-fasting	1–2	1–2	2–3	1–2
Intermittent fasting	*	2–3	2–3	2–3
Continuous fasting	*	2–3	2–3	2–3

*Not applicable

Commonly consumed fruits depicted in grams

1 medium-sized banana = 150 g	1 medium-sized orange = 200 g	1 medium-sized avocado = 150 g	1 medium-sized mango = 250 g
			
1 medium-sized lemon = 35 g	1 medium-sized slice of papaya = 75 g	1 medium-sized slice of watermelon = 150 g	1 medium-sized slice of pineapple = 35 g
			
1 glass of homemade mixed fruit juice = 250 g			
			

How much should we eat from the vegetables subgroup?




- One serving of vegetables food subgroup is equal to 1 medium-sized scoop of cooked vegetables.
- The minimum recommended intake of vegetables for younger children (2–5 years) is 1 serving a day. This increases to 1–2 servings per day for adolescents (6–18 years) and for the elderly (65+ years). For adults (19–64 years), it increases to 2–3 servings per day.
- The minimum recommended intake of vegetables for intermittent and continuous fasting is 2–3 servings per day.









Table 4: Minimum recommended number of vegetable servings per day









	Servings per day			
	2–5 years	6–18 years	19–64 years	65+ years
Non-fasting	1	1–2	2–3	1–2
Intermittent fasting	*	2–3	2–3	2–3
Continuous fasting	*	2–3	2–3	2–3

*Not applicable

Commonly consumed vegetables depicted in grams

1 medium-sized spoon of salad = 35 g	1 medium-sized scoop of cooked kale = 35 g	1 medium-sized scoop of mixed cooked vegetables = 25 g
		

Note: Even with the same food group, it is helpful to mix different food types as marked in the pictures above.

Key message 4: Diversify your diet with 10–20 grams of nuts and oilseeds such as groundnuts, and sunflower or sesame seeds



Why are nuts and oilseeds important and how much of them should we eat?

- Nuts and seeds such as groundnuts, Niger seeds and sesame seeds are good sources of protein, healthy fats, fibre, vitamins and minerals
- Nuts and seeds also contain healthy fats and other nutrients that protect us against heart disease.

Tips

- Adding nuts and seeds to *kolo* (roasted barley, wheat or other legumes) is excellent for your health
- Take nuts as a healthy snack instead of sweetened snacks
- Avoid mouldy nuts or oilseeds as they are not good for your health



Sunflower and flax seed juice mixed with *injera* flakes (*yesuf/yetelba fitfit*) are traditional foods good for health.

How much should we eat from the nuts and oilseeds group?





- One servings of nuts and oilseeds food subgroup is equals to 1 teaspoon of sunflower paste (suf fitfit).
- The minimum recommended intake of nuts and oilseeds for children 2–18 years old is 1–2 servings per day. This increases to 1–3 servings per day for adults (19–64 years) and the elderly (65+ years).
- The minimum recommended intake of nuts and oilseeds for intermittent fasting is 2–3 servings per day, and 2–6 servings per day for continuous fasting.

Table 5: Minimum recommended servings of nuts and oilseeds per day

	Servings per day			
	2–5 years	6–18 years	19–64 years	65+ years
Non-fasting	1–2	1–2	1–3	1–2
Intermittent fasting	*	2–3	2–3	2–3
Continuous fasting	*	2–6	2–6	2–6

*Not applicable

Commonly consumed nuts and oilseeds depicted in grams

1 average handful of groundnuts = 21	1 average handful of roasted sunflowers = 15 g	Sun flower juice mixed with pieces of injera (Yesuf fetfet) = 25 g	1 teaspoon of peanut butter = 10 gsspo
			

Key message 5: Add animal-sourced foods such as eggs and meat (60 grams) and dairy foods (300–400 grams) to your meals everyday



Why are animal-sourced foods important and how much of them should we eat?

- Animal-sourced foods such as meat, chicken and eggs are very good protein sources for building tissues and growth
- Organ meats such as liver, kidney and heart are rich sources of iron needed to combat anaemia
- Eggs are very good sources of complete protein and some B vitamins
- Milk (including goat and camel milk) and cheese are rich sources of calcium needed for bones and teeth

Tips

Adding a small amount of animal-sourced flesh foods to your meal is important

- A small amount of meat added to your stew (e.g. *bozena shiro*) enhances the nutritional benefits of other foods such as beans and peas
- Meat can sometimes have a lot of fat: cut off the fatty parts and remove chicken skin before cooking. Although fat is a source of energy, animal fat is mostly saturated, which is unhealthy for the heart.
- Avoid raw meat consumption. Consuming raw meat may not be safe and can cause food borne illness. Consume cooked meat instead.
- Drink fermented milk or boiled milk, and avoid drinking un-boiled milk which can contain dangerous bacteria



Drying meat (quanta) is common, and a good way of storing extra meat.

How much should we eat from the meat and egg group?







- One servings of meat and egg subgroup is equals to 1 egg or 1 portion of beef stew.
- The minimum recommended intake of meat and eggs for children 2–18 years old is 3–6 servings per week, rising to 4–9 servings per week for adults aged 19–64 years and 3–6 servings per week for the elderly (65+ years).
- The minimum recommended intake of meat and eggs for intermittent fasting is 0–9 servings per week.

Table 6: Minimum recommended servings of meat and eggs per week

	Servings per week			
	2–5 years	6–18 years	19–64 years	+65 years
Non-fasting	3–6	3–6	4–9	3–5
Intermittent fasting	*	0–9	0–9	0–9
Continuous fasting	*	0	0	0

*Not applicable

Commonly consumed meat and eggs depicted in grams

1 medium-sized ladle of meat stew = 85 g	1 medium-sized ladle of meat + kale stew = 50 g	1 medium sized fried fish = 300 g	1 medium-sized fish gulash = 80 g
			
1 medium-sized boiled egg = 50 g	2 medium-sized scrambled eggs = 50 g		
			

How much should we eat from the dairy foods group?



- One servings of dairy foods subgroup is equals to 1 cup of fresh milk.
- The minimum recommended intake of dairy foods (such as milk and yoghurt) for young children (2–5 years) is 1 serving per day. This increase to 1–2 servings per day for adolescents (6–18 years), adults (19–64 years) and the elderly (65+ years old).
- The minimum recommended intake of dairy foods for intermittent fasting is 0–2 servings per day.

Table 7: Minimum recommended servings of dairy foods per day

	Servings per week			
	2–5 years	6–18 years	19–64 years	+65 years
Non-fasting	3–6	3–6	4–9	3–5
Intermittent fasting	*	0–9	0–9	0–9
Continuous fasting	*	0	0	0

*Not applicable

Commonly consumed dairy foods depicted in grams

1 glass of milk = 200 g	1 cup of yoghurt = 350 g	1 Tablespoon of cottage cheese = 25 g
		

Key message 6: Drink 8–10 large glasses of clean water daily



Why is water important and how much should we drink?

To stay healthy, you must drink enough water. We need a minimum of 8–10 large glasses of water daily for:

- helping with digestion
- carrying nutrients and oxygen to our cells
- preventing constipation
- normalizing blood pressure
- cushioning joints
- protecting organs and tissues

Tips

- Use water containers with covers to store water
- Before fetching water, wash water containers regularly using locally available cleaning materials such as detergents and ash
- Treat your water by boiling or using WaterGuard: this makes it safe for drinking



Key message 7: Be physically active for at least 30 minutes a day



Why is physical activity important?

- Whatever your age, scientific evidence shows that being physically active can help you lead a healthier and happier life
- People who exercise regularly have a lower risk of developing many long-term (chronic) conditions such as heart disease, type 2 diabetes, stroke and some cancers

Tips

- Be physically active at least 30 minutes daily
- When you exercise, drink an adequate amount of water
- Conducting household activities such as washing clothes and other chores count as physical activities



Key message 8: Take up to 15–20 grams of fats and oils per day

- Fats and oils are sources of energy
- Fats and oils are the most concentrated sources of energy (twice as much energy as starch or sugar)
- Fats contain fatty acids needed for growth and also help in the absorption of certain vitamins such as vitamin A

Tips

- For cooking, choose liquid vegetable oils (such as sunflower, soya bean or Niger seed oil)
- You can reduce your fat intake, especially fat from animal sources such as butter (saturated fat) and industrially produced solid cooking fats (trans-fat) by steaming or boiling food instead of frying
- Replacing butter or solid fat such as margarine with vegetable oils is better for your health

How much should we eat from the fat and oil group?



- One servings of dairy foods subgroup is equals to 1 tablespoon of oil.
- The minimum recommended intake of fats and oils for children 2–18 years old is 1–2 servings per day. This increases to 2–3 servings per day for adults (19–64 years) and drops to 1–2 servings per day for the elderly (65+ years)
- The minimum recommended intake of fats and oils for intermittent and continuous fasting is 2–3 servings per day.

Table 8: Minimum servings of fats and oils per day

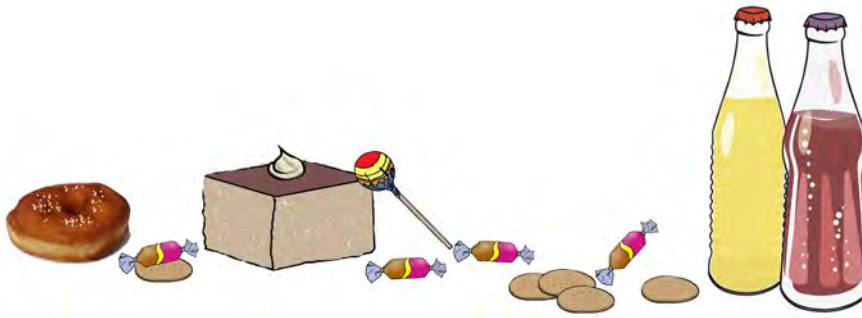
	Servings per day			
	2–5 years	6–18 years	19–64 years	65+ years
Non-fasting	1–2	1–2	2–3	1–2
Intermittent fasting	*	2–3	2–3	2–3
Continuous fasting	*	2–3	2–3	2–3

*Not applicable

Commonly consumed fats and oils depicted in grams

1 Tablespoon of oil = 10 g	1 Tablespoon of spiced butter = 15 g
	

Key message 9: Limit intake of sugar, sweets and soft drinks to below 30 grams per day










- Limiting sugar and sugar substitutes intake reduces the risk of overweight, obesity and tooth decay
- Besides the sugar added to coffee and tea, more sugar can be unknowingly taken in soft drinks, cakes, cookies and processed foods
 - For example, a single can or bottle of a sugar-sweetened soft drink has up to 40 grams (10 teaspoons) of added sugar

Tips

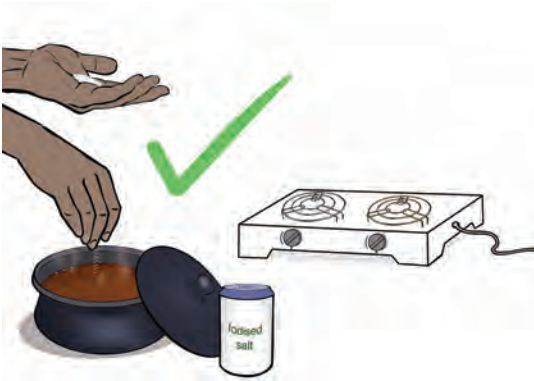
- Avoid adding sugar and sweeteners to milk and fruit juices
- Limit sugared foods like pastry and bakery products
- Take water instead of soft drinks: water is best and good for your health
- Do not add sugar or honey to your coffee and tea



Commonly consumed added sugar and sugar-sweetened beverage (SSB) depicted in grams

1 teaspoon of sugar = 4 g	1 medium-sized cake = 150 g	1 medium-sized glass of Coca Cola/soft drink = 340 g	1 medium-sized cookie = 9 g
			
			

Key message 10: Limit salt intake to below 5 grams per day



- Safeguard yourself from blood pressure by using less than 5 g (just under a teaspoon) of salt per day from all sources
- Remember! Some food items such as Ethiopian hot peppers, chilies and spices have a lot of salt added during processing, thereby counting towards salt consumption with the risk of daily intake rising above WHO recommendations

Tips

- When you process shiro, hot pepper and chilies, add only very small amount of salt
- When preparing your stew, reduce the salt: other ingredients such as hot pepper already have salt
- Use iodized salt
- Do not add salt to coffee
- Limit the consumption of salty snacks (such as packed crackers): it adds to your daily salt intake



1 pinch of salt = 2 g

Key message 11: Limit alcoholic drinks – both factory-processed and homemade – to no more than 2 glasses per week



- Drinking alcohol during pregnancy is discouraged because it affects your baby's health
 - Taking alcohol during pregnancy puts your baby at risk of premature birth, brain damage, impaired growth and development, congenital disabilities like heart defects, hearing or vision problems and low birth-weight (<2.5 kg at delivery)

Tips



- Even a small amount of alcohol intake during pregnancy can impair the health of both baby and mother

Food Safety

The following section presents five important tips from the WHO that are an important component of national Food-Based Dietary Guidelines (FBDGs).

1. Keep clean

- Wash your hands with soap and water before handling food and often during food preparation to avoid diseases-causing microorganisms leading to foodborne diseases
- Wash your hands with soap and water after going to the toilet
- Wash and sanitize all surface and equipment used for food preparation
- Protect kitchen areas and food from insects, pests and other animals



2. Separate raw and cooked foods

- Separate raw meat, poultry and sea foods such as fish from other foods to prevent the transfer of microorganisms which can affect your health
- If possible use separate equipment and utensils such as knives and cutting boards for handling raw foods. If not, clean knives and cutting thoroughly board before using them.
- Store foods in containers with lids to avoid contact between raw and cooked foods.



3. Cook food thoroughly

- Cook food thoroughly especially meat, poultry, eggs and sea foods; proper cooking (to a temp of 70 degree centigrade) kills almost all microorganisms that can affect your health
- Reheat cooked leftover foods thoroughly



4. Keep food at safe temperature

- If you have a refrigerator, do not leave cooked food at room temperature for more than 2 hours ; if not keep it in a cool dry place
- Refrigerate all perishable foods
- Do not store food for too long even in the refrigerator



5. Use safe water and raw materials

- Use safe water or treat water by boiling or using WaterGuard to make it safe
- Select safe and wholesome foods
- Wash fruits and vegetables in clean water especially if eaten raw
- Check expiry dates when you buy processed packed foods; do not buy if expired; it is harmful.



Source: Five keys to safer food manual, WHO 2006

Home Gardens

Home gardens are an important source of food and can be maintained by both rural and urban families. Gardening activities include production of crops, including fruits and vegetables; raising small animals such as chicken, goats, sheep and even fish. Home gardens can be put up in different areas, including schools, which can expose students to gardening and its benefits and in communities where container gardening can be done when gardening space is unavailable.



Photo credit: ILRI/Flickr.

- The produce of home gardens such as fruits and vegetables (including herbs) can offer low-cost, healthy foods that improve diets and make money from the sale of the produce.
- Get advice from your nearby agriculture extension workers on starting your vegetable garden to produce fruits, vegetables and herbs which helps you to save your money.
- Having your own home garden will also interest your children in gardening.

Stay on top of your harvest: Always remember that your garden needs care and attention in the same way your children do.

Source: <https://www.fao.org/zhc/detail-events/en/c/213014/>



Fruit garden (apples, avocados, and guava seedlings) planted in Bole Addis kindergarten, Addis Ababa).

Note: The apple tree was planted July 2021; and has produced its first fruit in about a year; good planting materials and management practices are essential.



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