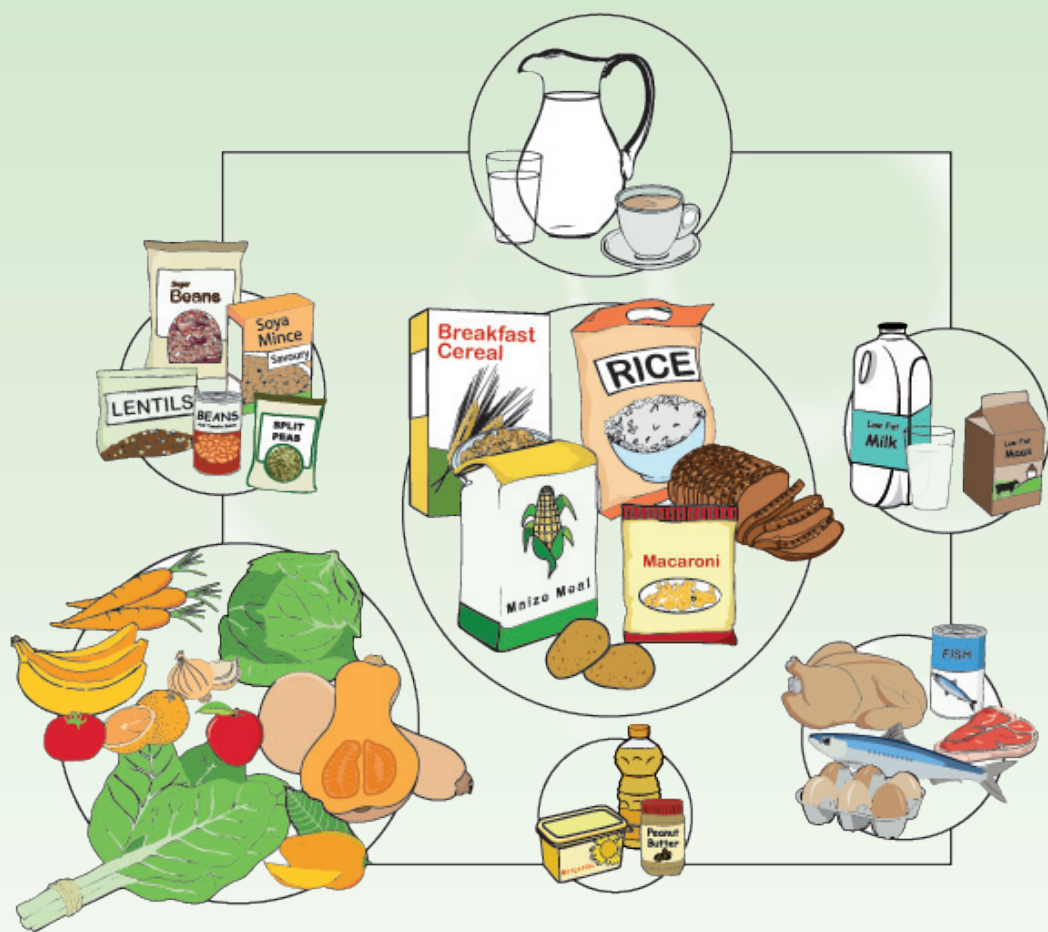


Guidelines for Healthy Eating





CONTENTS

1. Know your food groups in the food guide to get the most from your foods	4
1.1 What is a healthy eating plan	5
2. Guidelines for healthy eating	
2.1 Enjoy a variety of food	5
2.2 Make starchy food part of most meals	6
2.3 Fish, chicken, lean meat, or eggs could be eaten daily	7
2.4 Eat plenty of vegetables and fruit everyday	8
2.5 Eat dry beans, split peas, lentils and soya regularly	9
2.6 Drink milk, maas or yoghurt every day	10
2.7 Use salt and foods high in salt sparingly	10
2.8 Use fat sparingly; choose vegetable oils rather than hard fats	11
2.9 Use sugar and food and drinks containing sugar sparingly	11
2.10 Drink lots of clean, safe water	12
2.11 Be physically active	12
3. Samples of healthy meal options and snacks	13
4. Samples of unhealthy meal options and snacks	14
5. Annexure A: Table comparing comparison between healthy and unhealthy meals	17
6. Annexure B: Simple Master Shopping List	23
7. Annexure C: Seven Day Menu	25
8. Annexure D: Household measures	24
9. Annexure E: Assessing your weight	26

1. KNOW YOUR FOOD GROUPS IN THE FOOD GUIDE TO GET THE MOST FROM YOUR FOOD

The information in the booklet provides advice to South Africans over the age of 5 years about healthy food choices for healthy living. Eating in this way helps your body to stay healthy; A healthy eating plan provides your body with energy to function and helps prevent short and long-term illnesses.

The Guidelines for Healthy Eating was developed by the Department of Health to help South Africans have healthy eating plans, using a variety of foods. The messages in the Guidelines for Healthy Eating are supported by the visual and messages in the Food Guide.

Using the information in the Food Guide also helps you not to get too much of some nutrients; such as energy, saturated fat and salt.

Most foods contain many different nutrients; the foods in the same food group contain similar amounts of the main nutrients. The amount of energy that you need from your daily food intake depends on your age, your gender and how active you are.

The picture below depicts the Food guide. The size of the circles serves as a guide to show the foods that should be eaten in large amounts, compared to those that should be eaten sparingly.



The Food Guide is a visual reminder, to support messages from the *Guidelines for Healthy Eating*.

1.1 What is a healthy eating plan

A healthy eating plan is a diet that provides foods that supply the correct amount of nutrients needed for health; it has enough food and a variety of clean, safe food. Some people call this a balanced diet. This term is difficult to evaluate and explain, and the word diet is often associated with slimming diets.

To have a healthy eating plan:

- Eat the right amount of food for your needs.
- Enjoy a variety of foods which is readily available and affordable to you.
- Water is an important part of healthy eating; make plans to have water available during the day.

2. GUIDELINES FOR HEALTHY EATING

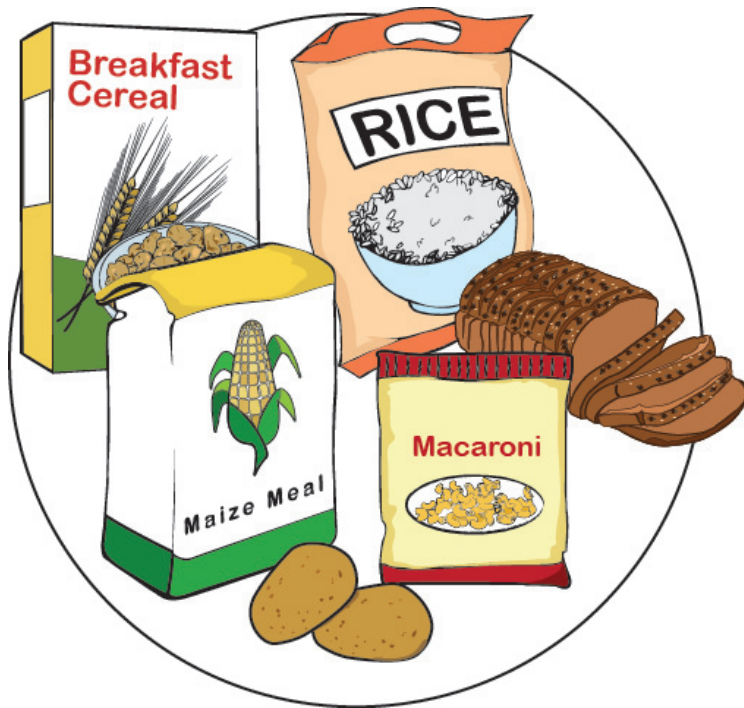
2.1 Enjoy a variety of food

The enjoyment of food is one of life's pleasures. Eating is about more than satisfying hunger, it is also a part of family life, social events and celebrations.

You can enjoy a variety of foods by:

- Including foods from two or more food groups at each meal and prepare it in different ways.

2.2 Make starchy food part of most meals

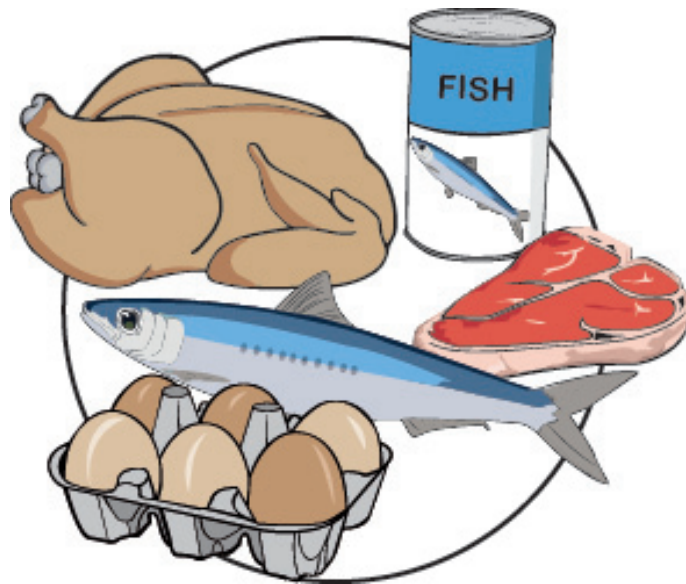


Starchy foods are the main source of dietary energy, they also contribute micronutrients and dietary fibre when eaten in minimally processed forms (unrefined products). These foods cost less than many other foods, when used as part of most meals they help to satisfy the appetite.

Good choices of starchy foods are:

- Fortified maize and bread. You can benefit from the extra vitamins and minerals.
- Unrefined starchy food like whole wheat bread, brown rice, mabela are rich in fibre.

2.3 Fish, chicken, lean meat, or eggs could be eaten daily

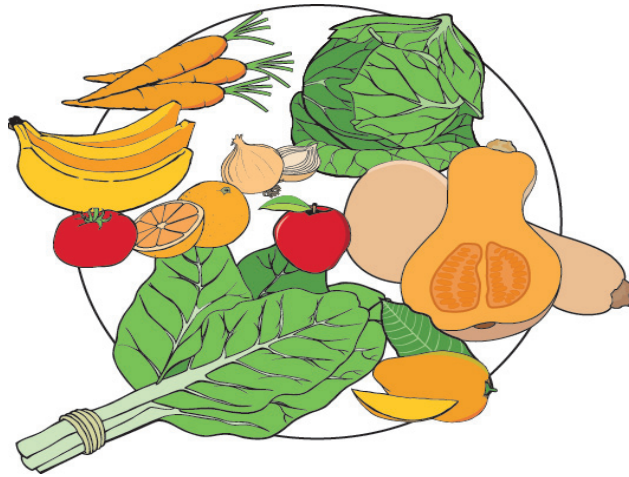


These foods are popular food choices for many people in South Africa, however these foods cost more than foods in the other food groups. The guideline explains that foods from this group could be eaten daily but not often.

Fish such as pilchards, sardines, mackerel, and salmon provide omega 3 fatty acids, nutrients found in very few food sources and are important for brain development and maintenance and have a protective factor in preventing heart problems.

- Choose fish such as pilchards, sardines, tuna, salmon, mackerel
- Use lean meat, remove skin and fat from the chicken before cooking, and limit use of processed meat such as sausages, salami, and polony.
- Cheese is included in this group, but should not be the food type chosen most often. This is because it is high in fat and salt.

2.4 Eat plenty of vegetables and fruit everyday



Vegetables and fruit are rich sources of vitamins and minerals, fibre and they contain water. Including vegetables and fruit to meals help to fill you up without adding too much extra energy. It is better to have a household vegetable garden.

Include dark green leafy vegetable and deep yellow fruits

- Prepare vegetable without added fat, sugar or salt.
- Vegetables should be slightly boiled with little or no water.

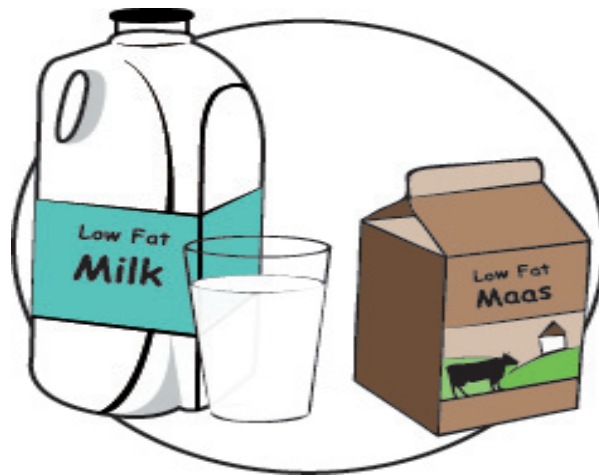
2.5 Eat dry beans, split peas, lentils and soya regularly



Adding dry beans, split peas, lentils and soya to a meal increases the nutrient content of the meal. Eating foods from this group decrease the risk of a wide variety of diseases such as heart disease, diabetes, and different types of cancer. Eating these foods help to maintain healthy blood sugar levels.

- These foods should be eaten at least two to three times per week
- These foods can be used with or without meat

2.6 Drink milk, maas or yoghurt every day



- Dairy products contains calcium which builds strong bones.
- Limit use of milk and milk products with added sugar.
- Use milk in tea or coffee instead of coffee/tea creamers (these are not milk products)
- Choose low fat options

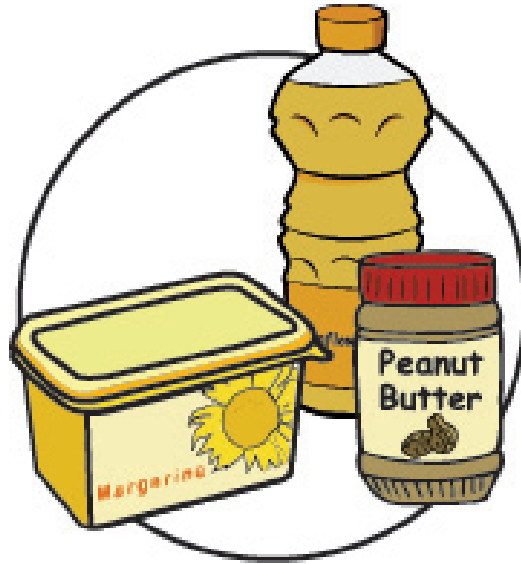
2.7 Use salt and foods high in salt sparingly

High salt intake over the long-term will lead to hypertension.

Salt may come from salt added during cooking and at table, but most comes from salt added when processed foods are produced or ready to use foods (eg bread) and from salt based seasonings and sauces.

- Use very little salt during cooking
- Seasoning salts, stock cubes, soup powders commercial salad dressings, yeast extracts and processed meats such as sausages, salami, and polony are high in salt

2.8 Use fat sparingly; choose vegetable oils rather than hard fats



The body needs some oils and fats from foods. Oils and fats can be found naturally in plant foods (like peanut butter and avocado). They can also be added to foods and meals by spreading tub margarine on bread or using sunflower oil to brown onions for a stew.

The total amount of fat and oil in the diet should be limited, because too much fat increases the risk for weight gain and the development of high blood pressure.

Fat is an essential nutrient in the eating plan; the type of fat, and the amount eaten are important.

- Use plant oils and foods made from plant oils examples are sunflower, canola, avocado, olive or tub margarine, as shown on the food guide.
- Limit fat from animal foods (full cream milk, cheese, fatty meat, skin of the chicken, high fat processed foods).

2.9 Use sugar and food and drinks containing sugar sparingly

A small amount of sugar can be added to foods and drinks like soft porridge or tea to improve the taste. Sweets and cold drinks may be eaten occasionally but should not be eaten to replace a meal. When sugar is used in a meal it should be counted in the daily sugar allowance.

Frequent consumption of sugar, especially between meals, is a risk factor for dental decay.

- Frequent consumption of sweetened cold drinks and fruit juice can lead to obesity, when the total energy value of the eating plan is higher than needed. Sweetened soft drinks contain around 10 teaspoons sugar or more per can

2.10 Drink lots of clean, safe water



- Children and adults need 6 – 8 glasses of fluids per day

2.11 Be physically active

- Exercise for at least 3-5 times a week for 30 minutes

3. SAMPLES OF HEALTHY MEAL OPTIONS AND SNACKS



Healthy breakfast

1½ Cup of mabela porridge
50 ml Milk (3 Tbsp)
10 ml Sugar (2 rounded teaspoons)
Energy: 1700 kilojoules
Fat: 4g (nearly 1 level tsp of margarine/oil)



2 slices seed bread
½ Cup pilchards in tomato sauce
4 slices tomato
1 glass of water (350ml)
Energy: 1541 Kilojoules
Fat: 11.7 g (Just over 2 level tsp margarine/oil)

Samples of healthy lunch meals



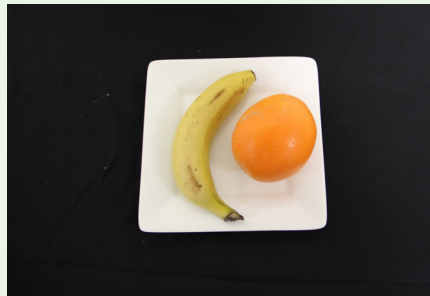
1 Cup mashed potato (milk and margarine added)
1 small chicken thigh grilled (skin removed)
½ Cup beetroot salad
½ Cup cooked spinach (with onion and potato)
1 glass of water (350ml)
Energy: 1626 Kilojoules
Fat: 17.6 g (3.5 level tsp margarine/oil)



1 Cup cooked chicken gizzards
1½ Cup Stiff maize meal porridge
½ Cup cooked pumpkin
½ Cup cooked spinach (with onion and potato)
1 glass of water (350ml)
Energy: 2492 kilojoules
Fat: 10.8 g (2 level tsp margarine/oil)



1½ Cup Stiff maize meal porridge
Mopani worms 120g
½ Cup cooked spinach (with onion and potato)
Energy : 2309 kilojoules
Fat: 14.4g (3½ level teaspoons margarine/oil)



Healthy Snack

1 Banana
1 Orange
Energy: 732Kilojoules
Fat: 0.5g (traces)

4. SAMPLES OF UNHEALTHY MEAL OPTION AND SNACKS



Unhealthy breakfast

1 tablespoon Atchaar (12,5 ml)
2 fat cakes (round, small)
4 slices Polony
Energy: 2731 Kilojoules
Fat: 44.7 g (9 level tsp of margarine/oil)



2 pieces of crumbed, deep-fried chicken (drumstick and thigh)
135g Chips (one large potato)
1 glass fizzy soft drink (280ml)
Energy: 3569.4 Kilojoules
Fat: 40 g (8 level teaspoons margarine/oil)
Added sugar: 28 g (6 level teaspoons sugar)



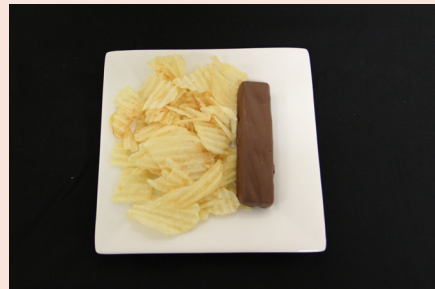
Pie (1=170g)
 1 glass fizzy soft drink (280ml)
 Energy: 3057.4 Kilojoules
 Fat: 38.9 (9½ level teaspoons of margarine/oil)
 Added sugar: 28g (6½ level teaspoons sugar)



Sephathlo (Portion: 462 g)
 Quarter loaf of bread
 Chips
 1 slice processed cheese
 1 Russian
 1 Slice polony
 1 Fried egg
 Sauces
 Energy: 5368kJ
 Fat: 51.5g (10 level teaspoons margarine/oil)



1 large fish deep-fried in batter
 Chips (1½ large potato)
 1 large deep-fried Russian
 Energy: 5441 Kilojoules
 Fat: 83.2 g (8 level tablespoons of oil)



1 chocolate-coated bar (50g)
 1 small packet potato crisps
 Energy: 1775 Kilojoules
 Fat: 23.8g (5 level teaspoons margarine/oil)



1 large Croissant(110g)
Energy: 1744.6 kilojoules
Fat: 22.3g (4½ level teaspoons
margarine/oil)



Cake and soft drink
1 Slice black forest cake (170g)
1 glass fizzy soft drink (280ml)
Energy: 2435.2 kilojoules
Fat: 15.3g (3 level teaspoons
margarine/oil)
Added sugar: 77 g(15 level teaspoons
sugar)

ANNEXURE A

COMPARISON BETWEEN HEALTHY AND UNHEALTHY MEALS IN A DAY

Unhealthy meal options					
Food item	Energy content (kJ)	Protein content (g)	Fat content (g)	CHO content (g)	Added sugar (g)
2 fat cakes (round, small) 4 slices Polony 12,5 ml (achar)	1463 1035 233	6.9 9.3 0.2	17 22.7 5	0.6 2.5	
Total	2731	16.4	44.7 9 level teaspoons of margarine/oil)	3.1	
2 pieces of crumbed, deep-fried chicken (drumstick and thigh) 135g Chips (one large potato) 1 glass fizzy soft drink (280ml)	1338 1724 507.4	24 5.8	20 20	12 47.4 31.2	28
Total	3569.4	29.8	40 (8 level teaspoons margarine/oil)	90.6	28 (6 level teaspoons sugar)
1 large fish deep-fried in batter Chips (1½ large potato) 1 large deep-fried Russian	1207 2586 1648	26.9 8.7 16.1	16.8 30 36.4	7.3 71.8 1.7	

Unhealthy meal option					
Total	5441	51.7	83.2 (8 tablespoons margarine/oil)	80.8	
Pie (1=170g)	2550	15.6	38.9	48.5	
1 glass fizzy soft drink (280ml)	507.4			31.2	28
Total	3057.4	15.6	38.9 (8 level teaspoons of margarine/oil)	79.7	28 (6 level teaspoons sugar)
1 small packet potato crisps 1 chocolate- coated bar (50g)	784 991	2.7 2.5	12.6 11.2	16 31.2	28.4
Total	1775	5.2	23.8 (5 level teaspoons margarine/oil)	47.2	28.4 (7 teaspoons level sugar)
1Large croissant (110g)	1744.6	9.13	22.33	42.13	
Total	1744.6	9.13	22.33 (4½teaspoons margarine/oil)	42.13	
1 Slice black forest cake (170g) 1 glass fizzy soft drink (280ml)	1927.8 507.4	10.2	15.3	69.7 31.2	49.3 28
Total	2435.2	10.2	15.3 (3 zteaspoons margarine/oil)	100.9	77 (15 level teaspoons of sugar)

Healthy meal				
Food item	Energy content (kJ)	Protein content (g)	Fat content (g)	CHO content (g)
2 slices seed bread	983	8.6	6.2	33.5
4 slices tomato	27	0.3	0.1	0.9
½ Cup pilchards in tomato sauce	531	18.8	5.4	0.7
Total	1541	27.7	11.7 (Just over 2 level teaspoons margarine/oil)	35.1
1½ Cup Stiff maize meal porridge	1366	8.2	1.9	72
½ Cup cooked pumpkin	74	0.6	0.1	2.3
½ Cup cooked spinach (with onion and potato)	318	1.8	4.6	5.2
1 Cup cooked chicken gizzards	734	31.2	4.2	1.3
Total	2492	41.8	10.8 (2 level teaspoons margarine/oil)	80.8
1 Cup mashed potato (milk and margarine added)	768	3.8	6.6	24.8
1 small chicken thigh grilled (skin removed)	254	11.8	1.4	
½ Cup beetroot salad	286	0.3	5	12.4
½ Cup cooked spinach (with onion and potato)	318	1.8	4.6	5.2
Total	1626	17.7	17.6 (3.5 level teaspoons margarine/oil)	42.4

Healthy meal				
1½ Cup Stiff maize meal porridge	1366	8.2	1.9	72
Mopani worms 120g	625.8	16.9	7.92	0.8
½ Cup cooked spinach (with onion and potato)	318	1.8	4.6	5.2
Total	2309.8	26.9	14.42(3½ level teaspoons margarine/oil)	78
1 Banana	458	1.6	0.4	22.6
1 Orange	274	1	0.1	11
Total	732	2.6	0.5	33.6

The total energy intake from the healthy eating plan would be adequate for a moderately active women who needs around 8500 kJ per day. She can still add some other healthy options to her eating plan such as legumes. She will start gaining weight if she follows the not so healthy eating plan. In addition, she should not eat more than about 6 level teaspoons of margarine/oil per day and more than 6 level teaspoons of sugar per day. If she follows the less than healthy eating plan she will consume four times more sugar she needs per day and twice as much margarine/oil.

ANNEXURE B

SIMPLE MASTER SHOPPING LIST

Below is a master shopping list that can be used while purchasing grocery. The list includes food items from the different food groups to ensure preparation of meals that provides the different nutrients. Always buy vegetables and fruit that are locally available and in season. Some of the items such as Mopani worms and Amadumbe are area specific and are included on the shopping list to indicate that they form part of a healthy plan.

Starchy foods	Vegetables and fruit	Dry beans, peas, lentils, soya	Chicken, fish, meat, eggs	Milk	Oil	Other
Fortified Maize meal/ Mabele (sorghum)	Onions	Sugar beans	Chicken, fresh	Low fat milk	Sunflower oil	Vinegar
	Carrots	Lentils	Chicken feet/ Gizzards/ hearts	Maas	Peanut butter	Salt
Breakfast cereals (high fibre)/oats	Butternut	Savoury soya mince		Buttermilk	Tub margarine	Mixed herbs
	Tomatoes	Split peas	Ox/lamb/ chicken livers	Plain yoghurt	Peanuts	Curry
Brown/whole wheat/rye bread	Spinach		Eggs		avocado	Jam
	Imifino/ morogo		Pilchard/ Salmon/tuna			Sugar
Rice	Pumpkin leaves					Tea
Potato/ Sweet potatoes / Amadumbe	Beetroot		Mopani worms			
	Apple		Lean Pork			
Samp	Banana		Lean mince/ steak / pork (Remove all visible fat before cooking,)			
Corn/mealie	Pineapple					
Macaroni/ spaghetti	pawpaw					
	any other vegetable and fruit that is locally available)					

ANNEXURE C 1

The seven- day menu below is an example of good mixed meals that could be eaten by the whole family. The menu items can be replaced by food items from the same food groups depending on what is available.

MEAL	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
Breakfast	Soft, Maize meal porridge	Cereal	Mabela/ sorghum porridge	Oats	Soft, Maize meal porridge	Mabela/ sorghum porridge	Toast , margarine thinly spread
	Milk	Milk	Milk	Milk	Milk	Milk	Scrambled eggs
							tomato slices
	Sugar	Sugar	sugar	Sugar	Sugar	Sugar	
							Tea with milk
Morning snack	Ditloo (traditional peanuts)	Fresh fruit	Fresh fruit	Fresh fruit	Brown bread and jam	Peanuts and raisins	Fresh fruit
Lunch	Brown bread	Brown bread	Brown bread	Brown bread	Brown rolls	Pilchard fish , stewed	Chicken stew
	Margarine	Peanut butter	Margarine	Margarine	Soya mince fricadels	Mashed potato	Rice
	Jam	Jam	Boiled egg	Jam	Carrot & pineapple salad	Beetroot salad	Mixed vegetables
	Tea with milk	Tea with milk	Tea with milk	Tea with milk			
Supper	Tasty mince (with mixed vegetable)	Pilchard kedgeree	Mopani worms with tomato relish	Beans, onion, tomato, carrots stew	Chicken liver stew	Maas	lentil and vegetable curry
	Rice	Mashed potato	stiff, Maize meal porridge	Samp	stiff, Maize meal porridge	stiff, Maize meal porridge	Rice
	Butternut	Green beans	Morogo/ imfino with peanuts	Cabbage	Spinach and tomato		
Daily	Water	Water		Water	Water	Water	Water

ANNEXURE C 2

All members of the family can eat from the same pot, but because of their different nutritional requirements, their portions will differ. The table below gives an example of how the portions will differ.

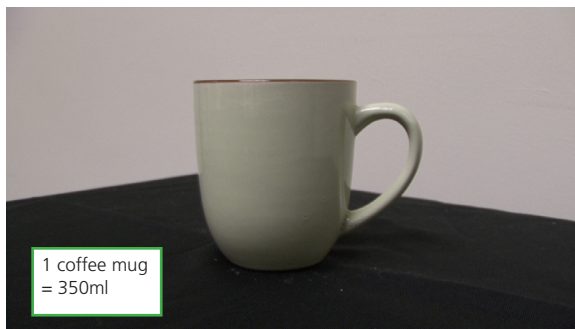
Meal	Menu of the day	Portions			
		Children 6-9years	Children 10 years and older	Adult female	Adult male
Break fast	Mabela/ sorghurm porridge	1 cup	1-2 cups	1-2 cups	3 cups
	Milk	¼ cup	¾ cup	¾ cup	1 cup milk
	sugar	1 teaspoons	2 teaspoons	2 teaspoons	3 teaspoons
Morning Snack	Fresh fruit	1 fruit	1-2 fruit	1-2 fruit	1-2 fruit
Lunch	Brown bread	2 slices	2-4 slices	2-4 slices	4 slices
	Margarine	2 teaspoons	2-4 teaspoons	2-4 teaspoons	4 teaspoons
	Boiled egg	1	1	1	1
	Tea with milk	1 cup milk	¼ cup milk and 3 teaspoons sugar with tea	¼ cup milk and 3 teaspoons sugar with tea	¼ cup milk and 3 teaspoons sugar with tea
Supper	Mopani worms with tomato relish	50g(½ cup)	100g(1 cup) mopani worms and 1 tomato	100g(1 cup) mopani worms and 1 tomato	100g(1 cup) mopani worms and 1 tomato
	stiff, Maize meal porridge	1 cup	1½cup	1½cup	2 cups
	Morogo/imfino with peanuts	1 cup (2 ladle/ serving spoons)	1 cup (2 ladle/ dishing spoons)	2cups (1½ ladle/ dishing spoons)	3 cups ((2¼ ladle/ dishing spoons)
Daily	Water	8 cups (also count the cup of tea)	8 cups (also count the cup of tea)	8 cups (also count the cup of tea)	8 cups (also count the cup of tea)

Annexure D

Household measures: spoons



Household measures: cups



ANNEXURE E ASSESSING YOUR WEIGHT

1. Waist circumference

A big waist circumference and too much abdominal fat puts you at high risk for type 2 diabetes, high blood pressure, high cholesterol and heart disease.

A high-risk waist circumference is:



When a man has a waist measurement greater than 102cm (40 inches)

When a woman has a waist measurement greater than 88cm (35 inches)

How to measure

To measure your waist circumference, use a tape measure. Start at the top of the hip bone, and then bring it all the way around to level with your navel. Make sure the tape is not too tight nor too loose and don't hold your breath while measuring.

2. Body Mass Index

Body Mass Index (BMI) is calculated by dividing your weight in kilograms by your height in meters squared (kg/m^2). BMI indicates whether you are carrying too much weight for your frame but does not take into consideration the individual's muscle or bone mass/weight.

For example if an individual is 1.7 meters tall and weighs 95kg. This is how the BMI is calculated:

$$\begin{aligned}\text{BMI} &= \frac{95\text{kg}}{(1.7\text{m} \times 1.7\text{m})} \\ &= \frac{95\text{kg}}{2.89} \\ &= 32.8 \text{ kg/m}^2 \text{ (obese)}\end{aligned}$$

Interpreting BMI scores:

Below 18.5 kg/m^2	Underweight
18.5 to 25 kg/m^2	Normal weight
25 to 30 kg/m^2	Overweight
More than 30 kg/m^2	Obese

Waist circumference may be a better indicator of obesity-related diseases than BMI. If you are physically active and have a lot of muscle mass, but your BMI is above 25, you might have a false indication of being overweight, thus you should measure your waist circumference.



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