

SOME FOOD FOR THOUGHT



A healthy student is happy, productive and successful. Eating for health is about eating a variety of foods from the five food groups in the right amounts. Choosing food that is easily available to you and that you can afford will make a healthy lifestyle easy to maintain. Remember three healthy meals a day are what every busy person's body needs to perform well. Good energy levels are only possible if we limit harmful foods like added salt, added sugars, saturated fat and alcohol.

THE LINKS BETWEEN CORRECT FOOD CHOICES, HEALTHY LIFESTYLE AND ACADEMIC PERFORMANCE

Many students take for granted the role played by correct food choices in their academic performance. Often students are faced with 'all you can eat' cafeterias, street vendors, fast food and late-night unhealthy snacks, not to mention a lack of kitchen facilities and financial constraints that limit their food budget. A lack of skills and knowledge around preparing and cooking healthy meals within a limited student budget and a demanding course load can easily contribute toward individuals' incorrect food choices. In addition, a regular physical activity routine is easily disrupted when a student chooses an extra hour of studying over a daily exercise routine.

Food provides the nutrients needed for regulating body processes. Therefore, choosing correct foods from a variety of food groups in the correct amounts, according to your body's needs helps the body to stay healthy; improves your ability to do everyday tasks and improves your mental ability and overall sense of wellbeing.

For that reason, improving eating and physical activity habits make a difference in the health, wellness and academic performance of a student.

The findings of a study conducted at the Durban University of Technology by a third year Food & Nutrition: Consumer Sciences student, under the supervision of Dr Delysia Timm (Advisor: Special project office of the DVC Teaching & Learning) and Dr Heleen Grobbelaar (Lecturer: Consumer Sciences: Food & Nutrition), show that a very small number of DUT students seem to regularly consume a varied diet which includes pulses (beans/ lentils) and a variety of fruit and vegetables and not only starchy foods and meat. The results of this student survey indicated that students seem to depend more on ready-made meals from 'on campus' vendors and fast food restaurants. Ready-made meals are more likely to be expensive, less nutritious and have a high fat and salt content.

This booklet is a user-friendly guide for students that explains the benefits of healthier food choices within a limited budget. It will give students some tips as they plan, shop for, prepare, cook and eat healthy meals and consequently enjoy a healthy lifestyle with improved academic performance.

GUIDELINES FOR HEALTHY EATING

Often students ask themselves what is healthy eating, how and why should they choose a healthy diet? Eating healthily is one of the most important things you can do for yourself. A healthy lifestyle helps the body to stay healthy; it improves your ability to do everyday tasks and your mental ability and gives an overall sense of wellbeing and/or prevent non-communicable health problems. To do so, the World Health Organization (WHO) has proposed that there is a need to improve world food standards. Such as having available dietary guides that provide information on (1) the amounts of food, (2) food groups and eating plans that promote health, (3) the consumption of whole food, rather than processed foods.

Healthy eating involves consuming the right amount of food from all food groups, which are: cereal and cereal product, fruits, vegetables, milk and dairy products, meat, and meat alternatives. Healthy eating has many benefits for our bodies. Foremost, our brain needs enough nutrients to function well. Consuming a healthy diet that is low in fat and high in essential nutrients such as vitamins, minerals, and phytochemicals, which are found in fruits and vegetables, may help boost memory. It also helps your brain to produce happy hormones, which make you feel good.

Eating healthily also boosts alertness because the brain needs a steady supply of glucose to concentrate and stay alert. Therefore including minerals such as iron, found in both animal and plant products but is most abundant in animal products, in the diet helps with the delivery of oxygen to the brain which will prevent fatigue.

Healthy eating provides protection from various diseases such as cancer, heart disease, and stroke. Studies have shown that you may reduce your chances of getting cancer by consuming a healthy diet. That diet should include fruits and vegetables because they contain nutrients called antioxidants which are said to reduce the chances of getting cancer. In addition, good nutrition ensures a proper supply of blood to the brain, therefore, lowering the risk of stroke.

Furthermore, eating healthily helps with the maintenance of body weight in relation to your age, gender, and height. This, in turn, boosts your self-esteem and mood because when you are physically active, you feel good about yourself.

Using the information in the Food Guide when making food decisions in order to meet the messages in the guidelines and the recommended amounts from the Food Guide can help you achieve and maintain a healthy lifestyle. For the South African food guide go to:

http://www.who.int/foodsafety/publications/consumer/manual_keys.pdf

THE SOUTH AFRICAN FOOD GUIDE



KEYS:

- FOOD
- NUTRITION
- FUNCTION

The Food Guide groups foods primarily on the basis of their type and nutrient contribution. The main distinguishing nutrients for each of the five food groups are shown in Table 1, although foods within each group also make significant contributions to other dietary components. Note that the grouping system is simplified for educational purposes and the foods within each group can vary.

NUTRITIONAL CHARACTERISTICS OF THE FIVE FOOD GROUPS

Food Groupname	Cereal and Cereal product	Vegetables and Fruit	Lean meat andpoultry, fish, eggs, and nuts, seeds, legumes/ beans	Milk, yogurt, cheese and/or alternatives, mostly
Main distinguishing nutrients	carbohydrate protein iron dietary fiber thiamin folate iodine	beta-carotene and other carotenoids vitamin C folate dietary fiber	protein iron zinc vitamin B12 (animal food only) long chain omega3 fatty acids	calcium protein riboflavin vitamin B12
Other important nutrients	energy magnesium zinc riboflavin niacin vitamin E	carbohydrates (potato, sweet potato, sweet corn, legumes) magnesium iron potassium	dietary fibre (plant foods only) energy essential fatty acids niacin vitamin E (seeds, nuts)	energy fat carbohydrate magnesium zinc potassium

MAKE SURE THAT YOUR MEALS ARE NUTRITIOUS – IT SHOULD INCLUDE FOODS FROM ALL THE FIVE FOOD GROUPS

PLAN A GOOD MIXED MEAL

Keeping your body energetic and in a good shape is every student's dream come true. What you need to do is create a healthy eating plan and enjoy a variety of foods from each food group every day, every week and all the year through. Eat foods seasonally, eat at home more so you enjoy meals you cook yourself and keep healthy by consuming fresh fruit and vegetable.

Hence, consider the following tips to help you plan well-mixed meals.

- Make starchy foods such as brown/white bread, maize meal, rice, samp, noodles or pasta part of most meals.
- Eat plenty of vegetables and fruit every day
- Eat dry beans, split peas, lentils, and soya regularly (at least once a week)
- Chicken, fish, lean meat or eggs can be eaten every day. However, if your food budget is limited, eat beans, split peas or lentils, as they are cost effective.
- Milk, Maas or yogurt can be eaten every day.
- Use salt and foods high in salt moderately.
- Use fat sparingly.
- Keep your sugar consumption low by eating sugar, food, and drinks high in sugar infrequently. See these foods as treats for special occasions only.
- Drink lots of clean, safe water.

Mixed meals are eating plans including food from two or more food groups at each meal. Eaten regularly three times a day in similar sizes.

Choose from these foods groups for mixed meals:



Pulses (beans & lentils) in your diet are 'meatier', more filling, make a more balanced side dish than rice or phuthu, and are simple to cook.

They will improve the total nutritional value of food when added to a meat or chicken dish, as they are high in fibre and a good source of plant protein and energy. They are an affordable source of protein..

EAT ACCORDING TO YOUR BODY'S NEEDS

What you eat on an everyday basis is what determines whether you will be energetic or lazy. Therefore, your eating patterns are the key to your health and wellness. In fact, lifestyle factors such as food and drink, sleep, exercise, and your mental state have a positive or negative influence on your social or academic performance depending on how you take care of yourself.

For example, skipping your breakfast or the kind of meal you eat during your lunch break will determine whether you are able to concentrate and engage well with your lecturers and classmates. Therefore, the quality and quantity of food you eat play a most important role in your everyday activities. Eating the correct food amounts from all the food groups will help you to ensure that you get all the nutrients your body needs.

However, each individual is unique and the quantity of energy that a person needs from their everyday food intake will differ based on age, gender and activity levels. For instance, the body composition of women and men is not the same and therefore their food intake will be different. For example, even though Njabulo (male) and Zintle (female) are both DUT students studying Food and Nutrition and are both active, Njabulo will need to eat a bigger portion of starchy food compared to Zintle, but eating the same portion size of fruit and vegetables will be sufficient for them both. Tables 1.1 to 1.5 show you the daily-recommended food intake, portion size for both males and females:

Table: Daily recommended number of servings for both males and females

Gender	Starchy foods e.g. bread, maize, pasta	Vegetables	Dry beans, Lentils, split	Fish, chicken, lean	Milk, maas,	Fats, oils	Sugar
Female	11	3	1	1	1	6	6
Male	15	3	1	1	1	8	6

A unit of food within a food group is calculated based on the nutritional value of the food, and this amount is then stated. Thus a single unit of each food in a food group supply a similar quantity of nutrients as other units in that same group.

Table: Food portion size per serves

Food Group	Foods	Unit/portion size
Starch food & Cereal product	Bread, brown/white	1 slice
	Porridge, soft	½ cup
	Maize meal, dry powder	3 heaped tablespoons
	Potato	1 medium
	Rice/ pasta/ samp/ whole grains, cooked	½ cup
	Breakfast cereal	Varies
	Popcorn, popped, (no salt or fat added)	2 cups
Vegetables & fruit	Cut corn, mealie	½ cup
	Fresh / frozen vegetables	½ cup cooked
	leafy vegetables	1 cup raw
	All fresh fruit	1 piece medium-sized fruit e.g. apple, banana. 2 pieces of small fruit e.g. apricots, plums ½ large fruit e.g. grapefruit. ½ cup chopped fruit ½ cup fruit juice

Table: Food portion size per serves

Food Group	Foods	Unit/portion size
Fish, chicken, lean meat, egg	Fish, white Fish, high-fat flesh Chicken, no skin Meat, lean Eggs, hens Chicken liver; Cheese, yellow	1 large piece 1 small piece 1 medium breast Size palm, sliced 10mm 2 3 cube 30mm 3/ 40g (match box size)
Milk, maas, yogurt	Milk, low fat or skim Maas, low fat Yogurt, low fat or fat-free	1 cup 1 cup 1 tub, 100ml
Fat/oil	Oil; sunflower; canola, olive or other plant oil Tub margarine Peanut butter	1 teaspoon 1 teaspoon 1 heaped teaspoon
Sugar	Sugar, brown or white Jam	1 teaspoon 1 heaped teaspoon



Table: The number of servings per day from each food group for Njabulo (male), who is an active adult and allowed to consume 10 500 kilojoules per day.

Meal	Cereal & Cereal products	Meat & Meat alternatives	Fruit & Vegetables	Milk & Dairy products	Fats & Oils
Breakfast	6		1	1	7
Snack	2		1		2
Lunch	2	1	1		1
Supper	3	1	2		2
snack	2				2
Total number of Units	15	2	4	1	14



Table: Guideline table illustrating a one-day menu plan for Njabulo (male)

Meal	Menu	Food group	Serving size (household measures)	Number of units
Breakfast	Oats, cooked	Cereal & Cereal Products	1 cup	2
	Sugar	Fats & Oil	4 teaspoon	4
	Milk (low fat)	Milk & Dairy Products	1 cup	1
	Bread (brown)	Cereal & Cereal Products	4 slice	4
	Margarine	Fats & Oils	3 teaspoon	3
Snack	Provita (Whole wheat crispbread).	Cereal & Cereal Products	6 each	2
	Margarine	Fats & Oils	2 teaspoon	2
	Apple	Fruit & Vegetables	1 medium size	1
Lunch	Stir-fried vegetables	Fruit & Vegetables	½ cup stir fried	1
	Carrot			
	Butternut			
	Broccoli			
	Sunflower oil	Fats & Oil	1 teaspoon	1
	Rice, cooked	Cereal & Cereal Products	1 cup	2
	Lentils	Meat & Meat alternative	½ cup	1

Meal	Menu	Food group	Serving size (household measures)	Number of units
Supper	Chicken stew	Meat & Meat alternative	1 chicken breast	1
	Maize meal, dry	Cereal & Cereal Products	6 heaped tablespoons	2
	Salad; -Carrot -Tomato and Onion mix Sunflower oil	Fruit & Vegetables	1 cup	1
		Fats & Oils	2 teaspoon	2
	Frozen vegetables	Fruit & Vegetables	½ cup	1
	Potato (baked)	Cereal & Cereal Products	1 med size	1
Snack	Margarine Provita (Whole wheat crispbread).	Fats & Oils	2 teaspoon	2
		Cereal & Cereal Products	6 each	2



Table: The table below shows the number of servings per day from each food groups of Zintle (Female), who is an active adult and allowed to intake 8 500 kilojoules per day.

Meal	Cereal & Cereal products	Meat & Meat alternatives	Fruit & Vegetables	Milk & Dairy products	Fats & Oils
Breakfast	4		1	1	5
Snack	2		1		3
Lunch	2	1	1		1
Supper	3	1	1		3
Total number of Units	11	2	4	1	12



Table: Guideline illustrating a one-day menu plan for Zintle (Female)

Meal	Menu	Food group	Serving size (household measures)	Number of units
Breakfast	Weetabix	Cereal & Cereal Product	1 cup	2
	Sugar	Fats & Oil	3 teaspoon	3
	Milk(low fat)	Milk & Dairy Products	1 cup	1
	Bread (brown)	Cereal & Cereal Product	2 slice	2
Snack	Margarine	Fats & Oil	2 teaspoon	2
	Apple	Fruit & Vegetables	1 med	1
Snack	Provita (Whole wheat crispbread).	Cereal & Cereal Product	6 each	2
	Margarine	Fats & Oil	3 teaspoon	3
Lunch	Brown bread	Cereal & Cereal Product	2 slice	2
	Split peas	Product	½ cup	1
	Frozen vegetables	Meat & Meat alternative	½ cup	1
	Sunflower	Fruit & Vegetables	1 teaspoon	1
Supper	Fish	Fats & Oil		
	Rice, cooked	Meat & Meat alternative	1 large peace	1
	Potato	Cereal & Cereal Product	1 cup	2
	Spinach	Cereal & Cereal Product	1 med	1
	Sunflower	Fruit & Vegetables	1 cup raw	1
		Fats & Oil	3 teaspoon	3

MORE HEALTHY RECOMMENDATIONS

Replace large portion sizes of starch (maize meal, rice, pasta) with smaller portion sizes and include fresh vegetables in the meal.

Replace large portion sizes of fatty meat with smaller portion sizes of lean meat, skinless chicken, and include vegetables and beans in the meal.

Prepare yourself a lunchbox with sandwiches, fruit, and water, instead of buying fried potato chips, amagwinya, and cold drinks.

Use low-fat milk or yogurt in your breakfast cereals.

Remember to keep an eye on your portion sizes, keep physically active and avoid smoking.

The key to eating healthily is regular mixed meals, of a similar size, eaten three times a day (breakfast, lunch, and supper).

CHANGES YOU CAN MAKE

- Use brown bread instead of white bread.
- Eat fresh fruit instead of drinking fruit juice, as it is more filling and has more fiber.
- Prepare meals using fresh ingredients instead of buying ready-made meals. Fresh food is likely to be less expensive, more nutritious and has a lower fat and salt content.
- Eat fruit, vegetables or yogurt as a snack between meals instead of a packet of chips



BREAKFAST REALLY IS THE MOST IMPORTANT MEAL OF THE DAY

You might be one of those breakfast 'skippers'! Most people skip breakfast because they are not hungry, do not have enough time or are in a hurry for the first-morning lecture. However, there are many good reasons why breakfast is often called the most important meal of the day. People who skip breakfast are more likely to be tempted by unplanned harmful food choices and large portion sizes at their next meal.

Students who usually eat breakfast based on wholegrain cereal or bread, low-fat yogurt or milk and maybe some fruit or vegetables are less likely to become overweight and are more physically active than students who skip breakfast most days.

A healthy breakfast helps to kick-start your energy levels, both for your brain and body. It will help you stay alert and keep your concentration levels up until lunch break and can even help to improve your memory. When you eat a healthy breakfast, you may find that you eat less during the rest of the day so your energy levels are more constant.

Breakfast does not have to be a big meal. Start with something simple and small if you are not that hungry. If you are in a hurry, grab something to have as breakfast 'on-the-go' or on campus, for example, a boiled egg.

Breakfast becomes less healthy if we add too much sugar, salt or butter. Try to avoid too much sugar from jams or sugar added at the table, salt added to meals and fat from bacon.

Try to include three food groups in your breakfast to keep you fuller for longer:

- Oats with milk and fruit.
- Brown bread with avocado or peanut butter
- Fruit and/ or vegetables with an egg (boiled, scrambled) on brown bread



LUNCH BOX TIPS

PLAN AHEAD



Planning your lunchbox night before gives you more flexibility and control. Trying to squeeze your lunchbox prep into the morning chaos will cause your nutritional and creative intentions to fall by the wayside.

You need to keep a regular checklist of regular lunchbox fillers in your grocery box and ensure that these popular items are in stock.

Make note of any recipes you want to try and buy the ingredients on a weekly basis.

KEEP YOUR LUNCHBOX FRESH



Avoid all preservatives, artificial flavoured, processed foods. But include raw fruits and vegetables in a variety of shapes and colours, every day.

PACKING SANDWICHES



Keep fresh ingredients like lettuce, tomato and cucumber separately to add to your sandwiches – this prevents them from going soggy.

Pack salad dressing in a little container and add before you eat the salad.

Pack into a small cooler bag to keep everything fresh.

PLANNING YOUR DRINKS



Avoid fizzy or sugary cool drinks, rather enjoy diluted 100% fruit juice

Water is the best choice, add lemon slices for extra flavour.

In summer, freeze water bottles overnight to have ice cold water throughout the day and to keep your lunch box cool.

The attention you spend planning and packing your lunchbox will communicate to your academic performance all the wholesome values of thoughtfulness, good nutrition, understanding, creativity, dedication and enjoyment often neglected in our everyday contest against time, and you will find that you are not keen to eat unhealthy food next time around.

IT STARTS WITH YOUR SHOPPING LIST

You can make your shopping easier, quicker and cheaper if you know which foods are healthy.

- Plan meals and snacks for the week/month and make sure you buy everything you will need all at once.
- Concentrate on buying a variety of foods (Five Food Groups) and limit harmful foods.
- Write a list and stick to it.
- Look for different types of lean meat and mince without visible fat.
- Choosing fat-reduced spreads limits weight gain.
- Eating a wide variety of fresh in-season fruit and vegetables will increase your nutrient intake, lower your kilojoules, cost less and keep meals and snacks interesting.
- Look for whole-grain breakfast cereals, as they are high in fiber and therefore more filling.
- Do not shop when you are hungry so that you are less tempted by unplanned choices.
- Read food labels so that you learn which products are the best choices with the least harmful ingredients.
- Know which food you can stock up on so that you save money and time (e.g. canned fish, dried beans, frozen vegetables).
- Look for a variety of frozen vegetables (long shelf life).
- Dried legumes (beans, lentils) and couscous are low in salt and are cheaper